

England - KS1 Curriculum For Circular Economy Complementing the KS1 Framework



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English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Reading Writing Speaking and Listening	Number and Place Value Addition and Subtraction Multiplication and Division Fractions Measurement Geometry Statistics	Science Working Scientifically Plants Animals, including humans Everyday Materials Seasonal Changes Living Things and their Habitats Light and Sound Geography Locational Knowledge	Computer Science (coding, algorithms, computational thinking) Information Technology (using software, internet safety) Digital Literacy (understanding digital devices and their uses) Designing Making	Changes within Living Memory Events beyond Living Memory Significant Historical Figures and Events Historical Interpretation	Drawing Painting Sculpture Printing Textiles Collage Digital Art Music Singing Playing Instruments	Health and wellbeing Financial literacy Citizenship Citizenship Rights and responsibilities Democracy Law and justice British values

		(countries, continents, oceans) Place Knowledge (local area, UK) Human and Physical Geography Geographical Skills and Fieldwork	Evaluating Technical Knowledge		Listening and Appraising Composing Performing Physical Education (PE) Games Dance Outdoor and Adventurous Activities (OAA)	
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The Circular Economy Curriculum Headings

Curriculum Categories for The Circular Economy

To support Education in England – Compatible with Curriculum for Excellence

Understanding the Circular Economy (CIRC1)	Waste Reduction and Recycling (CIRC 2)	Sustainable Consumption (CIRC 3)	Product Lifecycle and Design. (CIRC4)	Repair and Upcycling (CIRC5)	Circular Business Practices and innovation (CIRC6)	
Local Economies and Community Engagement (CIRC 7)	Environmental Impact and Resource Conservation (CIRC8)	Critical Thinking and Problem- (CIRC 9)	Citizenship and Global Responsibility (CIRC 10)	Food Systems (Circ 11)	Circular Technologies and Innovation (CIRC12)	Outdoor Learning (CIRC13)

Understanding the Circular Economy (Circ 1)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Reading:	Learners will develop an understanding of	Science	Learners will develop an understanding of	Learners will develop a basic understanding of the circular	Learners will explore the principles of the circular economy	Learners will develop an understanding of the circular

<p>Learners will be able to read and comprehend selected picture books on the circular economy, such as</p> <p>"Here We Are: Notes for Living on Planet Earth" by Oliver Jeffers</p> <p>"The Lorax" by Dr. Seuss,</p> <p>identifying key age-appropriate vocabulary related to the 10 Rs of the circular economy within context.</p> <p>Writing:</p> <p>Learners will be able to write short sentences or brief paragraphs using vocabulary related</p>	<p>the circular economy while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples and explore picture books related to the circular economy, incorporating age-appropriate vocabulary and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover,</p>	<p>Learners will develop an understanding of the circular economy through the lens of science and geography. They will explore concepts related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge in geography. Through hands-on activities, inquiry-based learning, and age-appropriate resources, they will investigate</p>	<p>the circular economy and its principles, integrating concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive activities and age-appropriate resources, learners will explore the concept of circularity in the context of digital technology, design thinking, and problem-solving. They will investigate how resources can be used more</p>	<p>economy, exploring the roles of eco engineers and inventors, and recognizing changes within living memory, events beyond living memory, significant historical figures, and historical interpretation. Through engaging activities tailored to their age and comprehension level, learners will grasp fundamental concepts of sustainability, resource conservation, and waste reduction. By the end of the learning experience, learners will be able to demonstrate an</p>	<p>through engaging activities in art, music, and physical education, fostering creativity, expression, and understanding of sustainability concepts.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings illustrating circular economy concepts, such as recycling, upcycling, and waste reduction. They may draw pictures of people sorting recyclables,</p>	<p>economy in the context of personal, social, health, and economic education (PSHE) by exploring the advocacy efforts of specific nature advocates from the UK. They will learn about citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values through the lens of environmental stewardship and sustainability.</p> <p>Applied Examples:</p> <p>Exploring the Circular</p>
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<p>to the circular economy and the 10 Rs, demonstrating understanding by describing simple actions they can take to support sustainability, such as</p> <p>"I can repair my toys if they break" or "I can repurpose old jars as pencil holders."</p> <p>Speaking and Listening:</p> <p>Learners will be able to engage in conversations about the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of</p>	<p>Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value:</p> <p>Learners will count and classify the number of items collected during a community clean-up event, reinforcing place value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total weight of recyclable materials collected and determine how</p>	<p>the principles of the circular economy and its application in various scientific and geographical contexts.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will conduct investigations to explore how everyday materials, such as paper or plastic, can be recycled or repurposed to reduce waste.</p> <p>They will engage in sorting and categorising</p>	<p>efficiently, products can be designed for longevity and recyclability, and waste can be minimised through innovative approaches. By the end of the learning experience, learners will be able to apply circular economy principles to real-world scenarios and propose solutions for creating a more sustainable and equitable future.</p> <p>Applied Examples:</p> <p>Understanding Circular Economy</p>	<p>introductory knowledge of the circular economy and its relevance to creating a more sustainable world.</p> <p>Applied Examples:</p> <p>Exploring Circular Economy Concepts:</p> <p>Learners will participate in story-based activities and discussions to learn about the circular economy and its importance in reducing waste and conserving resources.</p> <p>They will be</p>	<p>turning trash into treasure, or using renewable energy sources.</p> <p><i>Painting:</i> Learners will paint artworks depicting nature's cycles, such as the water cycle or the life cycle of plants and animals. They may use recycled materials as canvases or paint palettes to emphasise sustainability.</p> <p><i>Collage:</i> Learners will make collages using recycled materials, showcasing the interconnectedness of natural</p>	<p>Economy:</p> <p>Learners will engage in age-appropriate discussions and activities to understand the concept of the circular economy, focusing on reducing waste, recycling, and reusing resources.</p> <p>Learning About Nature Advocates in the UK:</p> <p>Learners will be introduced to specific nature advocates from the UK who have promoted environmental conservation and</p>
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<p>the 10 Rs in action, such as refusing single-use plastics or regifting gently used items, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts.</p>	<p>much more needs to be collected to reach a specific goal.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the number of trees planted in a community garden by the number of fruits each tree produces to find the total yield, or divide the total yield among community members.</p> <p>Fractions:</p> <p>Learners will explore the concept of fractions by</p>	<p>activities to identify recyclable materials and learn about the importance of separating waste for recycling.</p> <p>Plants:</p> <p>Learners will learn about composting and its role in returning nutrients to the soil, using decomposed organic matter to fertilise plants in a school garden.</p> <p>They will observe the growth of plants from seed to maturity, understanding how natural</p>	<p>Concepts:</p> <p>Learners will engage in interactive discussions and multimedia presentations to explore the concept of the circular economy, focusing on reducing waste, reusing materials, and recycling resources.</p> <p>They will participate in storytelling activities and watch age-appropriate videos to learn about real-world examples of circular economy practices in</p>	<p>introduced to simple examples of eco engineers and inventors who have contributed to sustainability through their innovations.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in their own lives regarding how resources are used and waste is managed.</p> <p>They will discuss simple actions they or their families have taken to reduce</p>	<p>systems and human activities. They may cut out images from magazines or old newspapers to create visual narratives of sustainability.</p> <p><i>Digital Art:</i> Learners will explore digital art tools to create multimedia presentations or digital artworks related to circular economy themes. They may use software to design posters, infographics, or animations promoting recycling and environmental</p>	<p>sustainability, such as David Bellamy or Chris Packham.</p> <p>PSHE and Citizenship:</p> <p>Through discussions and role-playing activities, learners will explore how advocating for environmental causes contributes to citizenship and promotes the well-being of communities and the planet.</p> <p>Health and Wellbeing:</p>
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	<p>sharing equally the amount of compost generated from food waste among different garden plots.</p> <p>Measurement:</p> <p>Learners will measure the dimensions of recycled materials to construct a model of a sustainable building or design.</p> <p>Geometry:</p> <p>Learners will identify shapes and their properties in nature, such as the symmetry of leaves or the</p>	<p>cycles contribute to sustainable agriculture practices.</p> <p>Animals, including humans:</p> <p>Learners will explore food chains and learn how waste from one organism can become a resource for another, emphasising the interconnectedness of ecosystems.</p> <p>They will investigate the concept of responsible pet ownership and discuss ways to minimise waste</p>	<p>action, such as recycling programs and upcycling initiatives.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will explore the concept of coding and algorithms through hands-on activities, such as coding games or programming simple robots, to understand how digital technologies can be used to optimise resource management and</p>	<p>waste, such as recycling or reusing items.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore basic historical events related to environmental awareness and conservation efforts.</p> <p>They may learn about nature conservation initiatives or historical figures who promoted environmental stewardship.</p> <p>Significant</p>	<p>conservation.</p> <p>Music:</p> <p><i>Singing:</i> Learners will sing songs with lyrics focusing on environmental awareness and sustainability. They may learn songs about nature, recycling, or caring for the planet, fostering a sense of connection to the environment through music.</p> <p><i>Playing Instruments:</i> Learners will play musical instruments to create rhythms and melodies</p>	<p>Learners will discuss the importance of a clean environment for their health and wellbeing, and how sustainable practices contribute to maintaining a healthy lifestyle.</p> <p>Financial Literacy:</p> <p>Learners will understand how sustainable practices can lead to financial savings for individuals and communities, such as reducing household waste or using energy-efficient</p>
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	<p>geometric patterns of flowers, relating geometry to the natural world.</p> <p>Statistics:</p> <p>Learners will collect data on energy consumption in their school or community and represent it using bar graphs or pictographs, analysing trends and proposing strategies for energy conservation.</p> <p>Picture Books:</p> <p>"The Earth Book" by Todd Parr - Introduces environmental concepts and</p>	<p>and environmental impact associated with pet care.</p> <p>Everyday Materials:</p> <p>Learners will examine the lifecycle of everyday products, such as toys or clothing, and discuss strategies for extending their lifespan through reuse and repair.</p> <p>They will participate in a classroom recycling project, creating artwork or useful objects from recycled</p>	<p>waste reduction.</p> <p>They will practise computational thinking skills by analysing problems related to waste management and designing algorithms to automate recycling processes or track environmental impact.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will learn about internet safety and responsible digital citizenship through</p>	<p>Historical Figures and Events:</p> <p>Learners will be introduced to key figures in history who have made significant contributions to sustainability, such as</p> <p>Rachel Carson</p> <p>or</p> <p>Wangari Maathai.</p> <p>They will engage in age-appropriate discussions about their impact on environmental</p>	<p>inspired by natural sounds and environmental themes. They may use recycled materials to make homemade instruments, such as shakers or drums, promoting creativity and resourcefulness.</p> <p><i>Listening and Appraising:</i> Learners will listen to music pieces inspired by nature or environmental issues, discussing the emotions and messages conveyed through the music. They may analyse how music can evoke</p>	<p>appliances.</p> <p>Rights and Responsibilities:</p> <p>Learners will discuss their rights to a clean environment and their responsibilities in protecting and preserving it for future generations.</p> <p>Democracy, Law, and Justice:</p> <p>Learners will learn about democratic processes related to environmental policy-making and how laws are enacted to protect</p>
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	<p>the importance of sustainability.</p> <p>"Ada's Violin" by Susan Hood - Tells the true story of a recycled orchestra in Paraguay, showcasing creativity and resourcefulness.</p> <p>"The Water Princess" by Susan Verde - Explores the importance of water conservation and access to clean water.</p> <p>"The Curious Garden" by Peter Brown - Illustrates the transformative power of gardening and</p>	<p>materials.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in the environment throughout the year, discussing how seasonal variations impact resource availability and waste generation.</p> <p>They will explore the concept of sustainable harvesting and learn about traditional practices for preserving</p>	<p>interactive lessons and role-playing scenarios, emphasising the importance of protecting personal information and avoiding online scams related to waste management schemes.</p> <p>They will explore the use of software tools and digital platforms for promoting circular economy practices, such as online marketplaces for buying and selling second-hand goods or apps for tracking food</p>	<p>awareness and conservation.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to sustainability and the circular economy.</p> <p>They will discuss how past events and actions have shaped present-day attitudes towards waste and resource consumption in</p>	<p>feelings of empathy, responsibility, and hope for a sustainable future.</p> <p><i>Composing:</i> Learners will compose their own songs or musical pieces with themes related to the circular economy. They may write lyrics about recycling, composing melodies inspired by natural sounds, or creating musical stories about environmental stewardship.</p> <p>Physical</p>	<p>the environment. They will discuss the importance of environmental justice for all.</p> <p>British Values:</p> <p>Through exploring the advocacy efforts of nature advocates, learners will reflect on British values such as respect for the environment, compassion, and responsibility towards future generations.</p>
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	<p>nature in urban environments.</p>	<p>seasonal foods.</p> <p>Living Things and their Habitats:</p> <p>Learners will investigate local ecosystems and habitats, identifying ways in which human activities can impact biodiversity and habitat health.</p> <p>They will discuss the importance of conservation efforts and brainstorm actions to protect local wildlife and habitats.</p> <p>Light and</p>	<p>waste.</p> <p>Designing and Making:</p> <p>Learners will engage in design thinking activities to brainstorm and prototype innovative solutions for reducing waste and promoting resource efficiency in their community.</p> <p>They will use digital design tools or traditional crafting materials to create models of sustainable products or packaging designs that</p>	<p>their community.</p>	<p>Education (PE):</p> <p><i>Games:</i> Learners will play outdoor games that promote teamwork, cooperation, and environmental awareness. They may engage in eco-themed games like "Recycling Relay" or "Nature Scavenger Hunt," encouraging physical activity while learning about sustainability.</p> <p><i>Dance:</i> Learners will participate in dance activities inspired by nature and sustainability themes. They</p>	
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		<p>Sound:</p> <p>Learners will learn about renewable energy sources, such as solar panels and wind turbines, and their role in reducing reliance on non-renewable resources.</p> <p>They will explore sound pollution and discuss strategies for minimising noise pollution in their community.</p> <p>Picture Books:</p> <p>"The Adventures of a Plastic Bottle: A Story</p>	<p>prioritise recyclability and biodegradability.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the environmental impact of digital devices and technologies by analysing their lifecycle and energy consumption, discussing the importance of choosing energy-efficient devices and extending their lifespan through repair and refurbishment.</p>		<p>may choreograph dances representing elements of the natural world, such as animals, plants, or weather patterns, fostering creativity and appreciation for the environment.</p>	
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		<p>"About Recycling" by Alison Inches - Introduces the concept of recycling and follows the journey of a plastic bottle from production to recycling.</p> <p>"The Great Kapok Tree: A Tale of the Amazon Rainforest" by Lynne Cherry - Raises awareness about deforestation and the importance of preserving natural habitats.</p> <p>"Ada's Violin: The Story of the Recycled Orchestra of Paraguay" by Susan Hood - Tells the inspiring true story of a musical orchestra</p>	<p>They will learn about technical concepts related to materials science and engineering, such as the properties of recyclable materials and the challenges of electronic waste recycling, to understand the technical aspects of circular economy solutions.</p>			
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		composed of instruments made from recycled materials.				
Waste Reduction and Recycling (Circ 2)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Reading: Learners will be able to read and comprehend selected picture books on water reduction and recycling in the	Learners will develop an understanding of water reduction and recycling while applying mathematical concepts of number and	Learners will develop an understanding of water reduction and recycling within the framework of the circular economy, integrating	Learners will develop skills in waste reduction and recycling within the context of the circular economy, integrating concepts from computer	Learners will develop a basic understanding of water reduction and recycling within the context of the circular economy, recognizing the roles of eco	Learners will explore the importance of water conservation and recycling in the circular economy through engaging activities in art, music, and	Learners will develop an understanding of waste reduction and recycling within the circular economy framework, focusing on personal, social,

<p>circular economy, such as</p> <p>"The Water Princess" by Susan Verde</p> <p>"Why Should I Save Water?" by Jen Green,</p> <p>Identifying key age-appropriate vocabulary related to water conservation and the circular economy, such as "water cycle," "conservation," "reuse," and "recycle."</p> <p>Writing:</p> <p>Learners will be able to write short sentences or brief paragraphs using vocabulary related to water reduction and recycling,</p>	<p>place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to water conservation, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p>	<p>concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the importance of water conservation, recycling, and sustainable practices in preserving</p>	<p>science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore innovative approaches to minimising waste, repurposing materials, and promoting resource efficiency. By the end of the learning experience, learners will be able to apply their knowledge to real-world situations and propose creative</p>	<p>engineers and inventors, and exploring changes within living memory, events beyond living memory, significant historical figures, and historical interpretation. Through interactive and age-appropriate activities, learners will grasp fundamental concepts of water conservation, recycling, and their importance in promoting sustainability. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of water management</p>	<p>physical education, fostering awareness and appreciation for water resources.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings depicting water-saving practices, such as turning off taps when not in use, fixing leaky faucets, or using rainwater barrels for gardening. They may illustrate the water cycle or draw scenes of people conserving water</p>	<p>health, and economic education (PSHE), as well as citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will explore the advocacy efforts of specific nature advocates from the UK to understand the importance of environmental stewardship.</p> <p>Applied Examples:</p> <p>Exploring Waste Reduction and Recycling:</p> <p>Learners will</p>
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<p>demonstrating understanding by describing simple actions they can take to conserve water and recycle water-related items, such as</p> <p>"I can turn off the tap while brushing my teeth" or "I can collect rainwater for watering plants."</p> <p>Speaking and Listening:</p> <p>Learners will be able to engage in conversations about water reduction and recycling in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They</p>	<p>Number and Place Value:</p> <p>Learners will count and compare the number of water bottles used in a week, reinforcing place value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total amount of water saved by turning off the tap while brushing teeth or taking shorter showers.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the number of days</p>	<p>natural resources and protecting the environment.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will conduct investigations to explore water usage in daily activities, such as brushing teeth or watering plants, and discuss strategies for reducing water consumption.</p> <p>They will engage in experiments to learn about the water cycle and how water can be recycled and</p>	<p>solutions for reducing waste and fostering a more sustainable environment.</p> <p>Applied Examples:</p> <p>Understanding Waste Reduction:</p> <p>Learners will explore the concept of waste reduction through interactive discussions and multimedia presentations, emphasising the importance of minimising waste to conserve resources and protect the environment.</p>	<p>practices and their contribution to a more sustainable world.</p> <p>Applied Examples:</p> <p>Exploring Water Conservation:</p> <p>Learners will engage in discussions and activities to understand the importance of conserving water and reducing water wastage.</p> <p>They will learn simple strategies for reducing water usage in daily activities, such as turning off taps</p>	<p>at home and in nature.</p> <p><i>Painting:</i> Learners will paint artworks showcasing the beauty of water landscapes, such as rivers, lakes, and oceans, while emphasising the importance of protecting these ecosystems. They may use blue hues to represent water and incorporate elements of water conservation into their paintings.</p> <p><i>Collage:</i> Learners will make collages using images of</p>	<p>engage in age-appropriate discussions and activities to understand the concepts of waste reduction and recycling, emphasising the importance of reducing waste and reusing materials.</p> <p>Learning About Nature Advocates in the UK:</p> <p>Learners will be introduced to specific nature advocates from the UK who have championed waste reduction and recycling initiatives, such as Jane Goodall or</p>
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<p>will be able to share examples of the 10 Rs applied to water usage, such as reusing bath water to water plants or refusing to let taps run unnecessarily, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of water conservation.</p>	<p>in a week by the amount of water saved per day to find the total weekly water savings, or divide the total weekly water usage among family members.</p> <p>Fractions: Learners will explore the concept of fractions by measuring and comparing the amount of water used for different activities, such as washing dishes or watering plants.</p> <p>Measurement: Learners will measure the capacity of water containers and calculate how much water they</p>	<p>reused through processes like precipitation, evaporation, and condensation.</p> <p>Plants:</p> <p>Learners will learn about the importance of water for plant growth and discuss ways to conserve water in gardening practices, such as using mulch or drip irrigation.</p> <p>They will observe the effects of drought on plant health and explore strategies for maintaining gardens during</p>	<p>They will engage in storytelling activities and watch educational videos to learn about the lifecycle of materials and the impact of waste on ecosystems.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will develop computational thinking skills by analysing problems related to waste management and designing algorithms to optimise recycling</p>	<p>when not in use.</p> <p>Learning About Recycling:</p> <p>Learners will explore the concept of recycling and its role in the circular economy through story-based activities and visual aids.</p> <p>They will learn about materials that can be recycled, such as plastic bottles and paper, and how recycling helps to conserve resources.</p> <p>Introducing Eco</p>	<p>water-related scenes and symbols, such as water droplets, fish, and water-saving devices. They may collage pictures of water-saving tips and slogans to create visually appealing posters promoting water conservation.</p> <p><i>Digital Art:</i> Learners will use digital art tools to create multimedia artworks focused on water conservation themes. They may design interactive presentations or digital posters highlighting the</p>	<p>Sir David Attenborough.</p> <p>PSHE and Citizenship:</p> <p>Through discussions and interactive activities, learners will explore how waste reduction and recycling contribute to citizenship by taking responsibility for the environment and community well-being.</p> <p>Health and Wellbeing:</p> <p>Learners will discuss how</p>
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	<p>can save by using smaller containers or filling them only halfway.</p> <p>Geometry:</p> <p>Learners will identify shapes and their properties in water-related objects, such as the symmetry of water droplets or the geometric patterns of water ripples.</p> <p>Statistics:</p> <p>Learners will collect data on water usage in their homes or classrooms and represent it using bar graphs or line plots, analysing trends and proposing</p>	<p>dry periods.</p> <p>Animals, including humans:</p> <p>Learners will investigate the role of water in maintaining hydration and discuss the importance of drinking clean water for human and animal health.</p> <p>They will learn about the impact of water pollution on aquatic ecosystems and brainstorm ways to reduce pollution and protect water</p>	<p>processes or track waste production.</p> <p>They will explore coding concepts through age-appropriate games or activities focused on waste reduction and environmental conservation.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will learn about the role of information technology in waste management, exploring software tools</p>	<p>Engineers and Inventors:</p> <p>Learners will be introduced to eco engineers and inventors who have made contributions to water conservation and recycling.</p> <p>They may learn about inventors of water-saving devices or eco-friendly filtration systems.</p> <p>Changes within Living Memory:</p> <p>Learners will discuss and reflect on</p>	<p>importance of reducing water waste and reusing water resources sustainably.</p> <p>Music:</p> <p><i>Singing:</i> Learners will sing songs with lyrics about water conservation and the water cycle, reinforcing key concepts through music. They may learn songs about saving water, protecting aquatic habitats, or appreciating the value of clean water for all living beings.</p> <p><i>Playing</i></p>	<p>proper waste management and recycling practices contribute to a clean and healthy environment, promoting their own health and wellbeing.</p> <p>Financial Literacy:</p> <p>Learners will understand how waste reduction and recycling practices can lead to cost savings for individuals and communities, such as reducing the need for new purchases and landfill disposal fees.</p> <p>Rights and</p>
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	<p>strategies for water conservation.</p> <p>Picture Books:</p> <p>"The Water Princess" by Susan Verde - Explores the importance of water conservation and access to clean water.</p> <p>"One Well: The Story of Water on Earth" by Rochelle Strauss - Illustrates the interconnectedness of water sources and the need for responsible water usage.</p> <p>"All the Water in the World" by</p>	<p>sources.</p> <p>Everyday Materials:</p> <p>Learners will explore the lifecycle of water bottles and discuss the environmental impact of single-use plastics, emphasising the importance of recycling and using reusable containers.</p> <p>They will participate in a classroom project to collect and recycle plastic bottles, learning about the process of recycling and</p>	<p>and digital platforms for tracking waste, promoting recycling, and raising awareness about environmental issues.</p> <p>They will practise internet safety skills by learning how to navigate online resources related to waste reduction and recycling, emphasising the importance of verifying information and protecting personal data.</p> <p>Designing and Making:</p>	<p>changes they have observed in water usage and recycling practices in their homes or communities.</p> <p>They will share personal experiences of participating in water-saving activities, such as using water-saving devices or participating in recycling programs.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to water</p>	<p><i>Instruments:</i> Learners will play musical instruments to create sounds inspired by water, such as flowing rivers, falling rain, or ocean waves. They may use percussion instruments to mimic water droplets or play melodies representing different aspects of the water cycle.</p> <p><i>Listening and Appraising:</i> Learners will listen to music pieces inspired by water themes, discussing how music can evoke emotions and images related to water</p>	<p>Responsibilities:</p> <p>Learners will discuss their rights to a clean environment and their responsibilities in reducing waste and recycling materials to protect the environment for future generations.</p> <p>Democracy, Law, and Justice:</p> <p>Learners will learn about democratic decision-making processes related to waste management policies and how laws are enacted to regulate waste</p>
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	<p>George Ella Lyon - Introduces young readers to the water cycle and the finite nature of Earth's water resources.</p>	<p>the benefits of reducing plastic waste.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in precipitation patterns and discuss the impact of climate change on water availability and drought conditions.</p> <p>They will explore traditional water conservation methods used in different cultures and discuss their relevance in modern-day</p>	<p>Learners will engage in design thinking activities to brainstorm and prototype solutions for reducing waste and promoting recycling in their community.</p> <p>They will use digital design tools or traditional crafting materials to create models of innovative products or packaging designs that prioritise recyclability and sustainability.</p> <p>Evaluating and Technical</p>	<p>conservation efforts and the development of recycling practices.</p> <p>They may learn about historical initiatives to address water pollution or historical figures who advocated for clean water and environmental protection.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures who played key</p>	<p>conservation. They may analyze the lyrics, melodies, and rhythms of water-themed songs to deepen their understanding of environmental stewardship.</p> <p><i>Composing:</i> Learners will compose their own water-themed songs or musical pieces, expressing their thoughts and feelings about water conservation through music. They may write lyrics advocating for water-saving behaviours or compose melodies inspired</p>	<p>disposal and promote recycling.</p> <p>British Values:</p> <p>Through exploring the advocacy efforts of nature advocates, learners will reflect on British values such as respect for the environment, responsibility, and community engagement in addressing environmental challenges.</p>
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		<p>practices.</p> <p>Living Things and their Habitats:</p> <p>Learners will investigate how water supports habitats and ecosystems, learning about the importance of wetlands, rivers, and oceans for biodiversity.</p> <p>They will explore the concept of water conservation in natural habitats and discuss ways to protect water-dependent</p>	<p>Knowledge:</p> <p>Learners will evaluate the environmental impact of different materials and products, discussing the benefits of using renewable materials and designing products for longevity and recyclability.</p> <p>They will learn about technical concepts related to waste management and recycling, such as sorting techniques and recycling processes, to understand the</p>	<p>roles in water conservation and recycling initiatives.</p> <p>They may learn about environmental activists, scientists, or policymakers who have contributed to water management practices.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to water conservation and</p>	<p>by the sounds of nature's water sources.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will engage in water-themed games that promote physical activity and teamwork while reinforcing water conservation principles. They may play games like "Water Relay Race," "Sponge Tag," or "Water Bucket Brigade," where they simulate water-saving actions in a fun and interactive</p>	
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		<p>species.</p> <p>Light and Sound:</p> <p>Learners will learn about the role of water in transmitting light and sound waves, exploring how water properties affect underwater visibility and sound transmission.</p> <p>They will investigate the concept of hydroelectric power and discuss the benefits and challenges of using water as a renewable energy</p>	<p>technical aspects of waste reduction initiatives.</p>	<p>recycling.</p> <p>They will discuss how past events and actions have influenced present-day water management practices in their community.</p>	<p>way.</p> <p><i>Dance:</i> Learners will participate in dance activities inspired by water movements and conservation themes. They may choreograph dances representing water flows, rain dances, or dances depicting the importance of protecting water resources for future generations.</p>	
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source.

Picture Books:

"All the Water in the World" by George Ella Lyon - Explores the water cycle and the interconnectedness of water sources around the world.

"The Water Princess" by Susan Verde - Tells the story of a young girl who dreams of bringing clean water to her village and highlights the importance of water conservation.

		"One Well: The Story of Water on Earth" by Rochelle Strauss - Illustrates the global significance of water and the need for responsible stewardship to ensure its availability for future generations.				
Sustainable Consumption (CIRC 3)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship

<p>Reading:</p> <p>Learners will be able to read and comprehend selected picture books on sustainable consumption in the circular economy, such as "The Earth Book" by Todd Parr or "The Adventures of an Aluminium Can: A Story About Recycling" by Alison Inches, identifying key age-appropriate vocabulary related to sustainable consumption and the circular economy, such as "conservation," "responsibility," "reuse," and "reduce."</p> <p>Writing: Learners</p>	<p>Learners will develop an understanding of sustainable consumption while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics.</p> <p>They will engage in specific applied examples, explore picture books related to sustainable consumption, and incorporate age-appropriate vocabulary related to the</p>	<p>Learners will develop an understanding of sustainable consumption within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and</p>	<p>Learners will develop foundational understanding and practical skills in sustainable consumption within the circular economy, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore simple ways to make environmentally conscious choices in their</p>	<p>Learning Objective:</p> <p>Learners will develop a basic understanding of sustainable consumption within the circular economy, recognizing the roles of eco engineers and inventors, and exploring changes within living memory, events beyond living memory, significant historical figures, and historical interpretation. Through engaging activities tailored to their age and comprehension level, learners will grasp fundamental concepts of responsible consumption,</p>	<p>Learners will explore the concept of sustainable consumption in the circular economy through creative activities in art, music, and physical education, fostering awareness and appreciation for responsible resource use and waste reduction.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings illustrating sustainable consumption practices, such</p>	<p>Learners will develop an understanding of sustainable consumption within the circular economy framework, focusing on personal, social, health, and economic education (PSHE), as well as citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will explore the advocacy efforts of specific nature advocates from the UK to understand the importance of responsible consumption</p>
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<p>will be able to write short sentences or brief paragraphs using vocabulary related to sustainable consumption, demonstrating understanding by describing simple actions they can take to support sustainable practices, such as</p> <p>"I can take a reusable bag when shopping" or "I can donate clothes I no longer wear."</p> <p>Speaking and Listening: Learners will be able to engage in conversations about sustainable consumption in the circular economy, actively using vocabulary</p>	<p>circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value: Learners will count and compare the number of toys or clothing items they own, reinforcing place value concepts.</p> <p>Addition and Subtraction: Learners will calculate the total amount of money saved by choosing to repair or reuse</p>	<p>age-appropriate resources, they will investigate the importance of making informed choices to reduce consumption, minimise waste, and promote environmental sustainability.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in investigations to explore the lifecycle of everyday products, such as toys or clothing, and discuss strategies for reducing consumption</p>	<p>consumption habits. By the end of the learning experience, learners will be able to demonstrate basic knowledge of sustainable consumption practices and apply simple strategies to promote environmental sustainability.</p> <p>Applied Examples:</p> <p>Understanding Sustainable Consumption:</p> <p>Learners will engage in discussions and storytelling activities to learn</p>	<p>resource conservation, and waste reduction. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of sustainable consumption practices and their contribution to a more sustainable world.</p> <p>Applied Examples:</p> <p>Exploring Sustainable Consumption:</p> <p>Learners will engage in discussions and activities to understand the</p>	<p>as using reusable water bottles, shopping with cloth bags, or buying locally produced goods. They may depict scenes of people conserving resources and minimising waste in their daily lives.</p> <p><i>Painting:</i> Learners will paint artworks depicting the beauty of nature and the importance of preserving it through sustainable consumption habits. They may use vibrant colors to portray sustainable living spaces, community</p>	<p>habits.</p> <p>Applied Examples:</p> <p>Exploring Sustainable Consumption:</p> <p>Learners will engage in discussions and activities to understand the concept of sustainable consumption, emphasising the importance of making choices that minimise environmental impact and promote long-term well-being.</p> <p>Learning About Nature Advocates in the</p>
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<p>learned from picture books and classroom discussions. They will be able to share examples of the 10 Rs applied to consumption, such as refusing single-use plastics or rethinking their purchases before buying, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of consumption.</p>	<p>items instead of buying new ones.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the cost of a single-use item by the number of times it's used to compare it to the cost of a reusable alternative, or divide the total cost of groceries by the number of meals they can make to understand the value of food.</p> <p>Fractions: Students will explore the concept of fractions by comparing the</p>	<p>through reuse, repair, and recycling.</p> <p>They will conduct experiments to investigate the environmental impact of different consumption choices and explore alternatives that promote sustainability.</p> <p>1. Plants:</p> <p>Learners will learn about sustainable gardening practices, such as companion planting and crop rotation, to promote soil health and</p>	<p>about the concept of sustainable consumption and its importance in protecting the environment.</p> <p>They will explore simple examples of sustainable choices, such as using reusable water bottles instead of disposable ones, through interactive games or role-playing activities.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in</p>	<p>concept of sustainable consumption and its importance in reducing waste and conserving resources.</p> <p>They will learn about simple actions they can take to consume responsibly, such as using reusable containers or reducing energy usage.</p> <p>Learning About Eco Engineers and Inventors:</p> <p>Learners will be introduced to eco engineers and inventors who have made contributions to</p>	<p>gardens, or eco-friendly products and packaging.</p> <p><i>Collage:</i> Learners will make collages using recycled materials to create artworks promoting sustainable consumption. They may collage pictures of repurposed items, eco-friendly packaging, or renewable energy sources to convey the message of reducing, reusing, and recycling.</p> <p><i>Digital Art:</i></p>	<p>UK:</p> <p>Learners will be introduced to specific nature advocates from the UK who have promoted sustainable consumption practices, such as Chris Packham or George Monbiot.</p> <p>PSHE and Citizenship:</p> <p>Through interactive activities, learners will explore how sustainable consumption contributes to personal and community well-being, demonstrating</p>
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	<p>amount of packaging waste produced from single-use items versus reusable or bulk items.</p> <p>Measurement: Learners will measure the volume of waste produced from different packaging materials (e.g., plastic, paper) and calculate the environmental impact.</p> <p>Geometry: Learners will identify shapes and their properties in everyday objects, such as the packaging of products, to understand how materials are used and</p>	<p>biodiversity.</p> <p>They will participate in garden-to-table activities, growing and harvesting their own fruits and vegetables, and discussing the benefits of locally sourced food.</p> <p>Animals, including humans:</p> <p>Learners will explore the concept of sustainable food choices, learning about the environmental impact of meat production and discussing</p>	<p>coding activities or use educational apps to learn about the environmental impact of different products and materials.</p> <p>They will explore simple algorithms for making sustainable choices, such as sorting items into categories of "reduce," "reuse," and "recycle."</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to explore virtual environments</p>	<p>sustainable consumption practices.</p> <p>They may learn about inventors of eco-friendly products or technologies that promote sustainable living.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in consumption habits and waste management practices in their own lives or communities.</p>	<p>Learners will use digital art tools to create multimedia artworks focused on sustainable consumption themes. They may design digital posters advocating for conscious consumer choices and environmentally friendly lifestyle habits.</p> <p>Music:</p> <p><i>Singing:</i> Learners will sing songs with lyrics about sustainable consumption and its positive impact on the environment.</p>	<p>responsible citizenship by considering the environmental and social impacts of their choices.</p> <p>Health and Wellbeing:</p> <p>Learners will discuss how sustainable consumption practices, such as eating healthy, locally sourced foods, contribute to personal health and the well-being of the community.</p> <p>Financial Literacy:</p> <p>Learners will</p>
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	<p>disposed of.</p> <p>Statistics: Learners will collect data on their household's consumption habits and represent it using bar graphs or pie charts, analysing trends and proposing strategies for reducing waste.</p> <p>Picture Books:</p> <p>"The Earth Book" by Todd Parr - Introduces environmental concepts and the importance of sustainability.</p> <p>"Why Should I Save Water?" by Jen Green - Explores the</p>	<p>plant-based alternatives.</p> <p>They will investigate ways to reduce waste in food consumption, such as composting food scraps or donating excess food to those in need.</p> <p>Everyday Materials:</p> <p>Learners will examine the lifecycle of common household items, such as paper or plastic, and discuss the importance of reducing</p>	<p>and learn about the lifecycle of everyday products.</p> <p>They will learn basic internet safety rules related to online shopping and product research, such as verifying the credibility of websites and avoiding scams.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing posters or creating artwork, to express their understanding of</p>	<p>They will discuss how their families have adopted sustainable practices, such as reducing single-use plastics or composting.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to the development of sustainable consumption practices.</p> <p>They may learn about historical initiatives to address environmental issues or promote sustainable living,</p>	<p>They may learn songs about recycling, reducing waste, or conserving energy, emphasising the importance of mindful consumption habits.</p> <p><i>Playing Instruments:</i> Learners will play musical instruments to create sounds inspired by nature and sustainability. They may use percussion instruments to mimic the rhythm of recycling or play melodies representing the harmony between humans and the</p>	<p>understand how making sustainable consumption choices can lead to cost savings over time, such as reducing energy consumption or avoiding unnecessary purchases.</p> <p>Rights and Responsibilities:</p> <p>Learners will discuss their rights to a clean environment and their responsibilities in making choices that support sustainability and protect natural resources for future</p>
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	<p>importance of water conservation and responsible water usage.</p> <p>"Michael Recycle" by Ellie Bethel - Illustrates the importance of recycling and reducing waste through the story of a superhero who helps clean up the environment.</p>	<p>consumption and choosing durable, reusable products.</p> <p>They will participate in a waste audit, sorting and categorising different types of waste to identify opportunities for reduction and recycling.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in nature throughout the year and discuss how seasonal variations impact consumption patterns, such as</p>	<p>sustainable consumption concepts.</p> <p>They will participate in simple design challenges, such as creating a model of a sustainable product using recycled materials.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate everyday products based on their environmental impact and learn to make informed choices about</p>	<p>such as the establishment of national parks or the adoption of recycling programs.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures who have promoted sustainable living and consumption.</p> <p>They may learn about environmental activists, conservationists, or policymakers who have</p>	<p>environment.</p> <p><i>Listening and Appraising:</i> Learners will listen to music pieces with themes related to sustainability and responsible consumption, discussing how music can inspire action and raise awareness about environmental issues. They may analyse the lyrics, melodies, and rhythms of songs advocating for eco-friendly living practices.</p> <p><i>Composing:</i> Learners will compose their own songs or musical pieces</p>	<p>generations.</p> <p>Democracy, Law, and Justice:</p> <p>Learners will learn about democratic decision-making processes related to sustainability policies and how laws are enacted to promote sustainable consumption practices and protect the environment.</p> <p>British Values:</p> <p>Through exploring the advocacy efforts of nature advocates, learners will reflect</p>
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		<p>energy use for heating or cooling.</p> <p>They will explore traditions and celebrations associated with different seasons, discussing ways to reduce waste and promote sustainability during holidays.</p> <p>Living Things and their Habitats:</p> <p>Learners will investigate the impact of consumption on habitats and ecosystems, learning about deforestation, habitat</p>	<p>which products to purchase.</p> <p>They will learn basic technical knowledge about sustainable materials and manufacturing processes, such as the benefits of using recycled materials and renewable energy sources.</p>	<p>advocated for responsible consumption and environmental protection.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to sustainable consumption.</p> <p>They will discuss how past events and actions have influenced present-day attitudes towards consumption and waste</p>	<p>celebrating sustainable consumption and encouraging others to adopt green lifestyle choices. They may write lyrics promoting recycling, composting, or supporting local farmers and artisans.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will engage in games that promote physical activity and sustainable consumption, such as "Recycling Relay," where they collect and</p>	<p>on British values such as respect for the environment, responsibility, and community engagement in promoting sustainable lifestyles.</p>
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		<p>destruction, and pollution.</p> <p>They will explore the concept of responsible pet ownership, discussing the environmental impact of pet care products and choosing eco-friendly alternatives.</p> <p>Light and Sound:</p> <p>Learners will learn about energy consumption and conservation, exploring ways to reduce electricity use and promote</p>		<p>management.</p>	<p>sort recyclable materials, or "Eco-Friendly Obstacle Course," where they navigate through obstacles representing environmental challenges and solutions. These games encourage teamwork, problem-solving, and eco-conscious behaviour.</p> <p><i>Dance:</i> Learners will participate in dance activities inspired by sustainability themes, such as "Nature Dance," where they move like animals or plants while learning about</p>	
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energy efficiency.

They will investigate renewable energy sources, such as solar and wind power, and discuss their role in promoting sustainable consumption practices.

Picture Books:

"The Lorax" by Dr. Seuss - Encourages discussions about environmental stewardship and the consequences of overconsumption.

"The Giving Tree" by Shel

their habitats and ecosystems, or "Recycling Dance," where they mimic sorting and recycling actions in a fun and rhythmic way.

		<p>Silverstein - Explores themes of generosity and sustainability, highlighting the importance of giving back to nature.</p> <p>"Our Earth: How Kids are Saving the Planet" by Janet Wilson - Profiles young activists and their efforts to promote environmental conservation and sustainable living practices.</p>				
Product Lifecycle and Design. (CIRC4)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic

						Education (PSHE) Citizenship
<p>Reading:</p> <p>Learners will be able to read and comprehend selected picture books on product lifecycle and design in the circular economy, such as</p> <p>"The Tiny Seed" by Eric Carle</p> <p>"The Three R's: Reuse, Reduce, Recycle" by Nuria Roca,</p> <p>Identifying key age-appropriate vocabulary related to product lifecycle, design, and the circular</p>	<p>Learners will develop an understanding of product life cycle and design while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to product life cycle and design, and incorporate</p>	<p>Learners will develop an understanding of product lifecycle and design within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge.</p>	<p>Learners will develop foundational understanding and practical skills in product lifestyles and design, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore how</p>	<p>Learners will develop a basic understanding of product lifestyle and design within the circular economy, recognizing the roles of eco engineers and inventors such as Dyson, and exploring changes within living memory, events beyond living memory, significant historical figures, and historical interpretation. Through interactive and age-appropriate activities, learners will grasp fundamental</p>	<p>Learners will explore the concept of product lifecycle and design within the circular economy through creative activities in art, music, and physical education, fostering understanding of sustainable production and consumption practices.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will</p>	<p>Learners will explore the concept of product lifecycle and design within the context of the circular economy, focusing on personal, social, health and economic education (PSHE), citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will develop an understanding of how products are made, used, and recycled or repurposed, and how their choices</p>

<p>economy, such as "manufacturing," "reuse," "recycle," "repair," and "upcycle."</p> <p>Writing:</p> <p>Learners will be able to write short sentences or brief paragraphs using vocabulary related to product lifecycle and design, demonstrating understanding by describing simple actions they can take to support sustainable product usage, such as "I can repair my broken toys instead of throwing them away" or "I can create new things from old materials."</p> <p>Speaking and</p>	<p>age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value:</p> <p>Learners will count and compare the number of toys or clothing items they own, reinforcing place value concepts.</p> <p>Addition and Subtraction:</p>	<p>Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the importance of designing products for longevity, reusability, and recyclability to minimise waste and promote environmental sustainability.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in investigations to explore the lifecycle of</p>	<p>products are designed, manufactured, used, and disposed of, with a focus on promoting environmental sustainability and responsible consumption habits. By the end of the learning experience, learners will be able to demonstrate basic knowledge of product lifecycles and apply simple design principles to create and evaluate sustainable products.</p> <p>Applied Examples:</p> <p>Understanding</p>	<p>concepts of sustainable product design, longevity, and innovation. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of product lifestyle and design principles and their contribution to a more sustainable world.</p> <p>Applied Examples:</p> <p>Exploring Product Lifestyle and Design:</p> <p>Learners will engage in</p>	<p>create drawings illustrating different stages of a product's lifecycle, from raw material extraction to disposal or recycling. They may depict products such as toys, clothing, or household items, highlighting the resources used and the environmental impact.</p> <p><i>Painting:</i> Learners will paint artworks depicting eco-friendly product designs and manufacturing processes. They may use vibrant colours to showcase</p>	<p>impact the environment and society.</p> <p>Applied Examples:</p> <p>Understanding Product Lifecycle:</p> <p>Learners will learn about the stages of a product's lifecycle, including production, distribution, use, and disposal. They will understand the environmental and social impacts associated with each stage.</p> <p>Exploring Sustainable</p>
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<p>Listening:</p> <p>Learners will be able to engage in conversations about product lifecycle and design in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of the 10 Rs applied to product usage, such as reusing containers for storage or repurposing old clothes into new items, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of</p>	<p>Learners will calculate the total cost of materials used to make a product and compare it to the total revenue generated by selling the product.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the number of products sold by the price of each product to find the total revenue, or divide the total cost of materials by the number of products made to find the cost per unit.</p>	<p>everyday products, such as toys or clothing, and discuss the environmental impact of different design choices.</p> <p>They will conduct experiments to explore materials and design features that enhance durability and promote reuse and recycling.</p> <p>Plants:</p> <p>Learners will learn about sustainable materials derived from plants, such as bamboo or cotton, and discuss their</p>	<p>Product Lifecycles:</p> <p>Learners will engage in storytelling activities and discussions to learn about the lifecycle of everyday products, from raw materials extraction to disposal or recycling.</p> <p>They will explore examples of sustainable product design, such as products made from recycled materials or designed for easy repair and</p>	<p>discussions and activities to understand the concept of product lifestyle and design and its role in the circular economy.</p> <p>They will learn about the importance of designing products that are durable, repairable, and recyclable.</p> <p>Learning About Eco Engineers and Inventors:</p> <p>Learners will be introduced to eco engineers and inventors such as Dyson who have made</p>	<p>sustainable materials, renewable energy sources, and innovative recycling methods in the production chain.</p> <p><i>Sculpture:</i></p> <p>Learners will sculpt models of products using recycled materials or natural elements, exploring creative ways to design items with minimal environmental impact. They may create sculptures representing upcycled objects or biodegradable packaging</p>	<p>Design:</p> <p>Through interactive activities, learners will explore the concept of sustainable design, such as using eco-friendly materials, reducing waste during production, and designing products for longevity and repairability.</p> <p>PSHE and Citizenship:</p> <p>Learners will discuss the importance of making informed choices as consumers and consider how their</p>
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<p>circular economy concepts in the context of product lifecycle and design.</p>	<p>Fractions: Learners will explore the concept of fractions by comparing the amount of recycled materials used in a product to the total amount of materials used.</p> <p>Measurement: Learners will measure the dimensions of a product and calculate its volume or surface area, reinforcing measurement concepts.</p> <p>Geometry: Learners will identify shapes</p>	<p>advantages in product design.</p> <p>They will explore the concept of biodegradable materials and investigate their use in eco-friendly packaging solutions.</p> <p>Animals, including humans:</p> <p>Learners will investigate the environmental impact of products made from animal-derived materials, such as leather or wool, and discuss alternatives that</p>	<p>disassembly.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in coding activities or use educational apps to learn about the environmental impact of different product materials and manufacturing processes.</p> <p>They will explore simple algorithms for designing and evaluating sustainable products, such as sorting materials based on their</p>	<p>contributions to sustainable product design.</p> <p>They may learn about Dyson's innovations in household appliances that prioritise energy efficiency and durability.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in product design and consumption habits in their own lives or communities.</p>	<p>solutions.</p> <p><i>Collage:</i> Learners will make collages showcasing examples of sustainable product design and innovation. They may collage pictures of eco-friendly gadgets, solar-powered devices, or compostable materials to demonstrate the principles of circular design.</p> <p>Music:</p> <p><i>Music Composing:</i> Learners will compose songs</p>	<p>decisions about product purchases and usage can contribute to a more sustainable and equitable society.</p> <p>Health and Wellbeing:</p> <p>Learners will reflect on how product design and usage can impact personal health and wellbeing, such as choosing products that are safe, non-toxic, and promote healthy lifestyles.</p> <p>Financial Literacy:</p>
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	<p>and their properties in products, such as the use of squares and rectangles in packaging or the symmetry of product designs.</p> <p>Statistics:</p> <p>Learners will collect data on the popularity of different product designs and represent it using bar graphs or line plots, analysing trends and proposing improvements.</p> <p>Picture Books:</p> <p>"The Adventures of an Aluminum Can: A Story About</p>	<p>promote animal welfare and sustainability.</p> <p>They will learn about the importance of ethical sourcing and fair trade practices in product design and manufacturing.</p> <p>Everyday Materials:</p> <p>Students will examine the lifecycle of common household items, such as plastic bottles or electronics, and discuss strategies for extending product lifespan</p>	<p>recyclability or energy efficiency.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to explore virtual environments and learn about sustainable product design principles.</p> <p>They will learn basic internet safety rules related to online research and product information, such as verifying the credibility of sources and avoiding</p>	<p>They will discuss how products have evolved over time to become more sustainable, such as the introduction of eco-friendly materials or reusable packaging.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to the development of sustainable product design practices.</p> <p>They may learn about historical initiatives to address planned</p>	<p>or musical pieces inspired by the theme of product lifecycle and design. They may create melodies that reflect the different stages of production, from inspiration and creation to reuse and recycling.</p> <p><i>Listening and Appraising:</i> Learners will listen to music pieces with themes related to sustainable design and consumption, discussing how music can convey messages about environmental responsibility and ethical</p>	<p>Learners will understand the economic aspects of product lifecycle and design, including the costs associated with production, maintenance, and disposal. They will learn about the value of investing in quality, durable products.</p> <p>Rights and Responsibilities:</p> <p>Learners will explore their rights as consumers to safe and sustainable products, as well as their responsibilities in making choices that consider</p>
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	<p>Recycling" by Alison Inches - Follows the journey of an aluminum can from recycling bin to new product.</p> <p>"Not a Box" by Antoinette Portis - Encourages creativity and imaginative thinking by showing how a simple box can be transformed into anything.</p> <p>"The Most Magnificent Thing" by Ashley Spires - Tells the story of a girl who learns about perseverance and problem-solving while trying to create the</p>	<p>through repair and repurposing.</p> <p>They will participate in a design challenge to create new products from recycled materials, exploring principles of creativity and innovation.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in consumer behaviour throughout the year, such as holiday shopping trends, and discuss the environmental</p>	<p>misleading advertisements.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as drawing or modeling, to design their own sustainable products or product improvements.</p> <p>They will participate in hands-on making activities, such as building prototypes or creating models from recycled materials, to bring their</p>	<p>obsolescence or promote the reuse and repair of products.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures who have influenced product design and innovation.</p> <p>They may learn about inventors or designers who have pioneered sustainable design principles or advocated for</p>	<p>manufacturing practices.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will participate in games that simulate the product lifecycle and promote understanding of sustainability concepts. For example, they may play "Lifecycle Relay," where they move through stations representing each stage of a product's journey, from extraction to disposal or recycling.</p> <p><i>Dance:</i> Learners</p>	<p>environmental and social implications.</p> <p>Democracy, Law, and Justice:</p> <p>Learners will discuss how policies and regulations can influence product design and lifecycle, and how democratic processes can be used to advocate for more sustainable practices in the industry.</p> <p>British Values:</p> <p>Through examining product</p>
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	<p>perfect invention.</p>	<p>impact of seasonal consumption patterns.</p> <p>They will explore the concept of sustainable gift-giving and discuss alternatives to traditional gift wrapping and packaging.</p> <p>Living Things and their Habitats:</p> <p>Learners will investigate the impact of product design on habitats and ecosystems, learning about the consequences of</p>	<p>designs to life.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the environmental impact of different product designs and materials, discussing factors such as durability, recyclability, and energy efficiency.</p> <p>They will learn basic technical knowledge about sustainable materials and manufacturing processes, such as the benefits of using renewable</p>	<p>product longevity.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to product lifestyle and design.</p> <p>They will discuss how past events and actions have influenced present-day product design practices and consumer behaviours.</p>	<p>will engage in dance activities inspired by the lifecycle of products and the principles of circular design. They may choreograph dances that symbolize the transformation of materials, the creative process of design, and the importance of reducing waste through reuse and recycling.</p>	<p>lifecycle and design, learners will reflect on British values such as stewardship of the environment, fairness, and respect for the well-being of others, including future generations</p>
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pollution and waste on wildlife.

They will explore biomimicry and discuss how nature-inspired design principles can lead to more sustainable products and solutions.

Light and Sound:

Learners will learn about energy-efficient lighting and soundproofing technologies, exploring how design choices can minimise energy consumption and

resources and eco-friendly production methods.

noise pollution.

They will investigate sustainable transportation options and discuss the role of design in promoting eco-friendly mobility solutions.

Picture Books:

"The Adventures of a Plastic Bottle: A Story About Recycling" by Alison Inches - Introduces the concept of recycling and follows the journey of a plastic bottle from production to

recycling.

"The Three R's: Reuse, Reduce, Recycle" by Nuria Roca - Explains the importance of the three Rs in minimising waste and promoting environmental conservation.

"One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia" by Miranda Paul - Illustrates the power of recycling and community involvement in cleaning up plastic waste.

Repair and Upcycling

(CIRC5)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
<p>Reading:</p> <p>Learners will be able to read and comprehend selected picture books on repair and upcycling in the circular economy, such as</p> <p>"Not a Box" by Antoinette Portis</p> <p>"Out of the Box" by Jemma Westing, identifying key age-appropriate vocabulary related</p>	<p>Learners will develop an understanding of repair and upcycling while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in</p>	<p>Learners will develop an understanding of repair and upcycling within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials,</p>	<p>Learners will develop foundational understanding and practical skills in repair and upcycling, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge.</p>	<p>Learners will develop a basic understanding of repair and upcycling within the circular economy, recognizing the importance of extending the lifespan of products and reducing waste. They will explore changes within living memory, events beyond living memory, significant historical figures,</p>	<p>Learners will explore the concepts of repair and upcycling within the circular economy through creative activities in art, music, and physical education, fostering understanding of sustainable practices and resource conservation.</p> <p>Applied</p>	<p>Learners will explore the principles of upcycling, repair, and sustainability within the context of the circular economy, focusing on personal, social, health, and economic education (PSHE), citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values.</p>

<p>to repair, upcycling, and the circular economy, such as "fix," "reuse," "repurpose," "create," and "cycle."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs using vocabulary related to repair and upcycling, demonstrating understanding by describing simple actions they can take to repair and repurpose items, such as</p> <p>"I can fix a torn book with tape" or</p> <p>"I can turn a cardboard box into a toy car."</p>	<p>specific applied examples, explore picture books related to repair and upcycling, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value: Learners will count and compare the number of items they have repaired or upcycled, reinforcing place</p>	<p>seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the importance of extending the lifespan of products through repair and creative reuse to minimise waste and promote environmental sustainability.</p> <p>Applied Examples:</p> <p>Working</p>	<p>Through interactive and hands-on activities, learners will explore the importance of repairing and repurposing items to reduce waste and promote environmental sustainability. By the end of the learning experience, learners will be able to demonstrate basic knowledge of repair techniques and apply simple upcycling strategies to create new and useful products from existing materials.</p> <p>Applied</p>	<p>and historical interpretation related to repair and upcycling. Through engaging activities tailored to their age and comprehension level, learners will learn about simple repair techniques and creative ways to repurpose materials. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of repair and upcycling practices and their contribution to a more sustainable world.</p> <p>Applied</p>	<p>Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings illustrating the process of repairing and upcycling everyday items. They may draw before-and-after images of objects undergoing repair, such as fixing a broken toy or repurposing old materials into new creations.</p> <p><i>Sculpture:</i> Learners will sculpt models of upcycled objects using recycled materials,</p>	<p>They will develop an understanding of how to repurpose and repair items to reduce waste and promote environmental stewardship.</p> <p>Applied Examples:</p> <p>Understanding Upcycling:</p> <p>Learners will learn about upcycling, which involves transforming old or unused items into new, useful products. They will explore creative ways to repurpose materials, such as turning old clothing into reusable bags or using empty</p>
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<p>Speaking and Listening:</p> <p>Learners will be able to engage in conversations about repair and upcycling in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of the 10 Rs applied to repair and upcycling, such as repairing a broken toy instead of throwing it away or upcycling old magazines into art projects, as well as listen to their peers and respond with relevant contributions, showing comprehension</p>	<p>value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total cost of materials needed for a repair project and subtract it from the cost of buying a new item to find potential savings.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the number of items repaired by the amount of money saved per item to find the total amount saved, or divide the total cost of materials by the</p>	<p>Scientifically:</p> <p>Learners will engage in investigations to explore the process of repairing common household items, such as toys or clothing, and discuss the environmental and economic benefits of repair over disposal.</p> <p>They will conduct experiments to identify materials and techniques for repairing different types of objects, promoting problem-solving and critical</p>	<p>Examples:</p> <p>Understanding Repair and Upcycling:</p> <p>Learners will engage in storytelling activities and discussions to learn about the importance of repairing and upcycling items to reduce waste and conserve resources.</p> <p>They will explore examples of common household items that can be repaired or repurposed, such as clothes, toys,</p>	<p>Examples:</p> <p>Exploring Repair and Upcycling:</p> <p>Learners will engage in discussions and activities to understand the concepts of repair and upcycling and their role in the circular economy.</p> <p>They will learn about the importance of repairing broken items instead of discarding them and repurposing materials to create new products.</p> <p>Learning About</p>	<p>showcasing creative ways to give new life to discarded items. They may sculpt sculptures representing imaginative creations made from repurposed materials, such as sculptures made from bottle caps or cardboard.</p> <p><i>Collage:</i></p> <p>Learners will make collages featuring examples of upcycled art and design. They may collage pictures of repurposed items, such as furniture made from reclaimed wood or jewellery made from old</p>	<p>containers for storage.</p> <p>Exploring Repair Techniques:</p> <p>Through hands-on activities, learners will explore basic repair techniques, such as sewing buttons, patching holes in clothing, or fixing broken toys. They will understand the importance of repairing items instead of discarding them.</p> <p>PSHE and Citizenship:</p> <p>Learners will discuss the</p>
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<p>and application of circular economy concepts in the context of repair and upcycling.</p>	<p>number of items repaired to find the cost per item.</p> <p>Fractions: Learners will explore the concept of fractions by comparing the amount of material used in a repair project to the total amount of material available.</p> <p>Measurement: Learners will measure the dimensions of an item to be repaired or upcycled and calculate any adjustments needed, reinforcing measurement</p>	<p>thinking skills.</p> <p>Plants:</p> <p>Learners will learn about sustainable materials derived from plants, such as wood or bamboo, and discuss their potential for use in repair and upcycling projects.</p> <p>They will explore the concept of natural dyes and investigate their use in revitalising worn or faded clothing items.</p> <p>Animals,</p>	<p>and furniture.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in coding activities or use educational apps to learn about the environmental impact of different products and materials.</p> <p>They will explore simple algorithms for identifying items that can be repaired or repurposed, such as sorting objects based on their condition and</p>	<p>Specific Eco Engineers and Inventors:</p> <p>Learners will be introduced to specific eco engineers and inventors who have made contributions to repair and upcycling practices.</p> <p>They may learn about individuals like Isatou Ceesay, who initiated plastic bag recycling in Gambia, or William Kamkwamba, who built windmills from recycled materials</p>	<p>buttons, to demonstrate the principles of upcycling.</p> <p>Music:</p> <p><i>Music Composing:</i> Learners will compose songs or musical pieces inspired by the theme of repair and upcycling. They may create melodies that celebrate the creativity and resourcefulness involved in giving new life to old objects.</p> <p><i>Performing:</i> Learners will perform songs or musical pieces</p>	<p>environmental and social benefits of upcycling and repair, including reducing waste, conserving resources, and supporting local economies. They will reflect on their role as responsible citizens in promoting sustainable practices.</p> <p>Health and Wellbeing:</p> <p>Learners will recognize the connection between environmental sustainability and personal wellbeing. They will discuss how</p>
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	<p>concepts.</p> <p>Geometry:</p> <p>Learners will identify shapes and their properties in items to be repaired or upcycled, such as the use of rectangles in furniture or the symmetry of clothing patterns.</p> <p>Statistics:</p> <p>Learners will collect data on the types of items commonly repaired or upcycled and represent it using bar graphs or pie charts, analysing trends and proposing</p>	<p>including humans:</p> <p>Learners will investigate the environmental impact of fast fashion and discuss alternatives, such as clothing repair and thrift shopping, that promote sustainable fashion choices.</p> <p>They will learn about the importance of proper care and maintenance of clothing and discuss strategies for extending the lifespan of garments through repair and</p>	<p>potential uses.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to explore online resources for repairing and upcycling projects.</p> <p>They will learn basic internet safety rules related to online tutorials and instructional videos, such as following age-appropriate instructions and seeking adult supervision when</p>	<p>in Malawi.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in repair practices and attitudes towards upcycling in their own lives or communities.</p> <p>They will discuss how repairing items and upcycling materials has become more common as people become more aware of environmental</p>	<p>about repair and upcycling, using instruments or their voices to express the importance of reuse and sustainability.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will participate in games that promote the principles of repair and upcycling. For example, they may play a game where they collect discarded materials and work together to repurpose them into new play structures or art</p>	<p>reducing waste and living more sustainably can contribute to a healthier lifestyle for themselves and others.</p> <p>Financial Literacy:</p> <p>Learners will understand the financial benefits of upcycling and repair, such as saving money by extending the lifespan of items and reducing the need for new purchases. They will learn to make informed decisions about resource use and consumption.</p>
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	<p>improvements.</p> <p>Picture Books:</p> <p>"Not a Box" by Antoinette Portis - Encourages creativity and imaginative thinking by showing how a simple box can be transformed into anything.</p> <p>"The Most Magnificent Thing" by Ashley Spires - Tells the story of a girl who learns about perseverance and problem-solving while trying to create the perfect invention.</p>	<p>alteration.</p> <p>Everyday Materials:</p> <p>Learners will examine the lifecycle of common household items, such as furniture or electronics, and discuss the potential for repair and repurposing to reduce waste and conserve resources.</p> <p>They will participate in a repair cafe or workshop, learning basic repair skills and techniques from community</p>	<p>needed.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as drawing or brainstorming, to design repair and upcycling projects.</p> <p>They will participate in hands-on making activities, such as sewing, painting, or assembling, to repair or repurpose items and create new products.</p>	<p>issues.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to repair and upcycling initiatives.</p> <p>They may learn about historical efforts to repurpose materials during times of scarcity or historical figures who promoted repair culture.</p> <p>Significant Historical Figures and</p>	<p>installations.</p> <p><i>Dance:</i> Learners will engage in dance activities inspired by the concepts of repair and upcycling. They may choreograph dances that symbolise the transformation of old materials into new creations, celebrating the value of creativity and environmental stewardship.</p>	<p>Rights and Responsibilities:</p> <p>Learners will explore their rights as consumers to repair products and access information about product lifespan and repairability. They will discuss their responsibilities in caring for and maintaining the items they own.</p> <p>Democracy, Law, and Justice:</p> <p>Learners will learn about regulations and policies related to waste management and product repair. They will</p>
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	<p>"Out of the Box" by Jemma Westing - Provides ideas and inspiration for upcycling everyday items into new creations.</p>	<p>members or experts.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in consumer behaviour throughout the year, such as spring cleaning or holiday shopping, and discuss the potential for upcycling and repurposing to reduce waste during these periods.</p> <p>They will explore creative gift-giving ideas that promote sustainability, such as</p>	<p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the environmental impact of repairing and upcycling projects, discussing factors such as resource conservation and waste reduction.</p> <p>They will learn basic technical knowledge about repair techniques and materials, such as sewing stitches and basic woodworking skills.</p>	<p>Events:</p> <p>Learners will be introduced to significant historical figures who have influenced repair and upcycling practices.</p> <p>They may learn about activists or artisans who have advocated for repair rights or sustainable craftsmanship throughout history.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple</p>		<p>understand how advocacy and democratic processes can influence policies that support sustainability and circular economy practices.</p> <p>British Values:</p> <p>Through discussions about upcycling, repair, and sustainability, learners will reflect on British values such as resourcefulness, community cooperation, and environmental stewardship. They will recognize their role in preserving these values for future</p>
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handmade gifts or experiences rather than material possessions.

Living Things and their Habitats:

Learners will investigate the impact of waste on habitats and ecosystems, learning about the consequences of littering and pollution on wildlife.

They will explore the concept of wildlife conservation and discuss how repair and

activities to interpret historical photographs or artefacts related to repair and upcycling.

They will discuss how past events and actions have influenced present-day attitudes towards repair and upcycling practices.

generations.

upcycling can contribute to reducing habitat destruction and preserving biodiversity.

Light and Sound:

Learners will learn about the environmental impact of electronic waste and discuss strategies for extending the lifespan of electronic devices through repair and refurbishment.

They will investigate DIY projects that repurpose

electronic components, such as turning old speakers into planters or lamps.

Picture Books:

"The Worn-Out Dancing Shoes" by David Lucas - Tells the story of a cobbler who repairs a pair of worn-out shoes, highlighting the value of craftsmanship and repair.

"Out of the Box" by Jemma Westing - Provides creative ideas for upcycling household items into new and useful objects, inspiring children

		<p>to think creatively about waste reduction.</p> <p>"The Adventures of a Cardboard Box" by Sarah Powell - Follows the journey of a cardboard box as it is transformed into various imaginative creations, illustrating the potential for upcycling and creative reuse.</p>				
Circular Business Practices and innovation (CIRC6)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE)

						Citizenship
<p>Reading: Learners will be able to read and comprehend selected picture books on circular business practices and innovation in the circular economy, such as</p> <p>"The Curious Garden" by Peter Brown</p> <p>"The Boy Who Harnessed the Wind" by William Kamkwamba,</p> <p>identifying key age-appropriate vocabulary related to circular business practices, innovation, and the circular</p>	<p>Learners will develop an understanding of circular business practices and innovation while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to circular business practices and innovation, and incorporate</p>	<p>Learners will develop an understanding of circular business practices and innovation within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through</p>	<p>Learners will develop foundational understanding and practical skills in circular business practices and innovations, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore how businesses can</p>	<p>Learners will develop a basic understanding of circular business practices and innovations within the circular economy, recognizing their role in promoting sustainability and reducing waste. They will explore changes within living memory, events beyond living memory, significant historical figures, and historical interpretation related to circular business models and innovations. Through age-appropriate activities, learners will learn about eco-friendly</p>	<p>Learners will explore the concept of circular business practices and innovation through creative activities in art, music, and physical education, fostering understanding of sustainable economic models and innovative solutions to environmental challenges.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will</p>	<p>Learners will explore Circular Business Practices and Innovation within the context of the circular economy, focusing on personal, social, health, and economic education (PSHE), citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will develop an understanding of sustainable development goals (SDGs) and how businesses can contribute to achieving them through circular</p>

<p>economy, such as "sustainability," "innovate," "business," "resources," and "cycle."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs using vocabulary related to circular business practices and innovation, demonstrating understanding by describing simple examples of circular business practices or innovative solutions to environmental challenges, such as "I can use recycled paper for my drawings" or "I can create a new toy from old</p>	<p>age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value:</p> <p>Learners will count and compare the number of products made using circular business practices versus traditional manufacturing methods, reinforcing place</p>	<p>inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the importance of adopting circular business models and innovative solutions to promote resource efficiency, reduce waste, and create sustainable economic opportunities.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in investigations to explore innovative</p>	<p>contribute to a circular economy by minimising waste, promoting resource efficiency, and innovating sustainable solutions. By the end of the learning experience, learners will be able to demonstrate basic knowledge of circular business practices and apply simple strategies to promote environmental sustainability in their communities.</p> <p>Applied Examples:</p> <p>Understanding Circular</p>	<p>businesses and innovative solutions that contribute to a more sustainable future. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of circular business practices and innovations and their importance in creating a circular economy.</p> <p>Applied Examples:</p> <p>Exploring Circular Business Practices:</p> <p>Learners will engage in</p>	<p>create drawings depicting businesses engaged in circular practices, such as recycling centers, eco-friendly product manufacturing, or businesses that utilize renewable energy sources. They may illustrate the lifecycle of products and materials within a circular economy.</p> <p><i>Sculpture:</i> Learners will sculpt models representing innovative products or businesses that contribute to the circular economy. They may sculpt sculptures of</p>	<p>economy practices.</p> <p>Applied Examples:</p> <p>Introduction to Circular Business Practices:</p> <p>Learners will understand the concept of circular business practices, which involve designing products and services with a focus on reducing waste, promoting resource efficiency, and contributing to sustainable development. They will learn about businesses that prioritize recycling, reuse,</p>
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<p>materials."</p> <p>Speaking and Listening:</p> <p>Learners will be able to engage in conversations about circular business practices and innovation in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of circular economy initiatives, such as businesses that use recycled materials or innovative solutions to reduce waste, as well as listen to their peers and respond with relevant contributions,</p>	<p>value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total revenue generated by selling products made from recycled materials and subtract any production costs to find the profit earned.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the number of products sold by the price of each product to find the total revenue, or divide the total revenue by the number of</p>	<p>solutions for waste reduction and resource recovery, such as composting food waste or using recycled materials in manufacturing.</p> <p>They will conduct experiments to explore the environmental and economic benefits of circular business practices compared to linear models.</p> <p>Plants:</p> <p>Learners will learn about sustainable agriculture practices, such as organic</p>	<p>Business Practices:</p> <p>Learners will engage in storytelling activities and discussions to learn about the concept of a circular economy and the role of businesses in promoting sustainability.</p> <p>They will explore examples of businesses that practise circular principles, such as companies that use recycled materials in their products or offer repair services.</p> <p>Computer</p>	<p>discussions and activities to understand the concept of circular business practices and their role in reducing waste and promoting sustainability.</p> <p>They will learn about businesses that prioritise recycling, reuse, and resource conservation in their operations.</p> <p>Learning About Specific Eco Engineers and Inventors:</p> <p>Learners will be introduced to specific eco engineers and</p>	<p>eco-friendly buildings, renewable energy installations, or sustainable transportation methods.</p> <p><i>Collage:</i></p> <p>Learners will make collages showcasing examples of circular business practices and innovation. They may collage images of companies implementing waste reduction strategies, designing products for durability and reuse, or adopting environmentally friendly</p>	<p>and waste reduction.</p> <p>Exploring Sustainable Development Goals (SDGs):</p> <p>Through age-appropriate discussions and activities, learners will explore SDGs related to environmental sustainability, such as SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action). They will understand how circular business practices align with these goals.</p> <p>PSHE and</p>
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<p>showing comprehension and application of circular economy concepts in the context of business and innovation.</p>	<p>products made to find the revenue per unit.</p> <p>Fractions:</p> <p>Learners will explore the concept of fractions by comparing the amount of recycled material used in a product to the total amount of material used.</p> <p>Measurement:</p> <p>Learners will measure the dimensions of products made using circular business practices and compare them to products made using traditional methods, reinforcing</p>	<p>farming and permaculture, and discuss their potential for promoting circularity in food production.</p> <p>They will explore innovative farming techniques, such as hydroponics or vertical gardening, and discuss their advantages in maximising resource efficiency.</p> <p>Animals, including humans:</p> <p>Learners will investigate circular</p>	<p>Science and Computational Thinking:</p> <p>Learners will participate in coding activities or use educational apps to learn about the environmental impact of different business practices.</p> <p>They will explore simple algorithms for identifying ways that businesses can reduce waste and recycle resources, such as sorting products for reuse or recycling.</p>	<p>inventors who have contributed to circular business practices and innovations.</p> <p>They may learn about individuals like Ellen MacArthur, who founded the Ellen MacArthur Foundation to promote the circular economy, or Elon Musk, who leads innovative sustainable energy companies.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on</p>	<p>packaging.</p> <p>Music:</p> <p><i>Music Composing:</i></p> <p>Learners will compose songs or musical pieces inspired by the theme of circular business practices and innovation. They may create melodies that celebrate businesses finding creative solutions to environmental challenges or promote sustainable consumption habits.</p> <p><i>Performing:</i></p>	<p>Citizenship:</p> <p>Learners will discuss the role of businesses in society and how their actions can impact communities and the environment. They will explore ethical considerations in business practices and the importance of corporate social responsibility.</p> <p>Health and Wellbeing:</p> <p>Learners will recognize the connection between sustainable business practices</p>
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	<p>measurement concepts.</p> <p>Geometry:</p> <p>Learners will identify shapes and their properties in products made using circular business practices, such as the symmetry of packaging or the geometric patterns of textiles.</p> <p>Statistics:</p> <p>Learners will collect data on the environmental impact of products made using circular business practices and</p>	<p>approaches to food production and consumption, such as community-supported agriculture (CSA) or farm-to-table initiatives, and discuss their benefits for local economies and ecosystems.</p> <p>They will learn about innovative food packaging solutions, such as edible packaging or biodegradable materials, and discuss their potential for reducing waste and pollution.</p> <p>Everyday Materials:</p>	<p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to explore online resources about circular business practices and innovations.</p> <p>They will learn basic internet safety rules related to online research, such as identifying reliable sources of information and avoiding misinformation.</p> <p>Designing and Making:</p>	<p>changes they have observed in business practices and consumer behaviours within their own lives or communities.</p> <p>They will discuss how businesses have become more environmentally conscious and adopted circular strategies in recent years.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to the development of circular business models</p>	<p>Learners will perform songs or musical pieces about circular economy businesses, using instruments or their voices to express the importance of sustainability and innovation in the business sector.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will participate in games that simulate circular economy principles and promote innovation. For example, they may play a game where they act</p>	<p>and human health and wellbeing. They will discuss how businesses can contribute to creating healthier environments by reducing pollution and promoting sustainable lifestyles.</p> <p>Financial Literacy:</p> <p>Learners will understand the economic benefits of circular business practices, such as cost savings through waste reduction and resource efficiency. They will learn about businesses that have adopted</p>
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	<p>represent it using bar graphs or line plots, analyzing trends and proposing improvements.</p> <p>Picture Books:</p> <p>"The Adventures of an Aluminum Can: A Story About Recycling" by Alison Inches - Follows the journey of an aluminum can from recycling bin to new product.</p> <p>"Ada Twist, Scientist" by Andrea Beaty - Encourages curiosity and innovation by following a young girl who loves to solve</p>	<p>Learners will examine innovative materials and product design strategies that promote circularity, such as modular construction or cradle-to-cradle design principles.</p> <p>They will explore the concept of the sharing economy and discuss innovative business models, such as rental services or product-sharing platforms, that promote resource sharing and waste reduction.</p> <p>Seasonal</p>	<p>Learners will engage in creative activities, such as designing posters or creating models, to showcase circular business practices and innovations.</p> <p>They will participate in hands-on making activities, such as creating prototypes of sustainable products or packaging designs, to explore innovative solutions.</p> <p>Evaluating and Technical</p>	<p>and innovations.</p> <p>They may learn about historical initiatives to reduce waste or historical figures who advocated for sustainable business practices.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures who have influenced circular business practices and</p>	<p>as entrepreneurs developing sustainable products or services, solving environmental challenges while considering economic viability.</p> <p><i>Dance:</i> Learners will engage in dance activities inspired by the concepts of circular business practices and innovation. They may choreograph dances that symbolise the cycle of resources in a circular economy or celebrate innovative solutions to environmental</p>	<p>circular economy models and their positive financial outcomes.</p> <p>Rights and Responsibilities:</p> <p>Learners will explore the rights and responsibilities of businesses in promoting sustainability and contributing to the achievement of SDGs. They will discuss the role of consumers in supporting businesses that prioritize environmental and social responsibility.</p> <p>Democracy, Law,</p>
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	<p>problems and ask questions.</p> <p>"Rosie Revere, Engineer" by Andrea Beaty - Celebrates creativity and perseverance as a young inventor learns from her mistakes and never gives up on her dreams.</p>	<p>Changes:</p> <p>Learners will observe changes in consumer behaviour throughout the year, such as holiday shopping trends, and discuss innovative approaches to reducing waste during peak consumption periods.</p> <p>They will explore the concept of product-as-a-service (PaaS) models and discuss how subscription-based services can promote durability and product</p>	<p>Knowledge:</p> <p>Learners will evaluate the environmental impact of different business practices, discussing factors such as product lifespan, recyclability, and energy efficiency.</p> <p>They will learn basic technical knowledge about sustainable materials and manufacturing processes, such as the benefits of using renewable resources and eco-friendly production methods.</p>	<p>innovations.</p> <p>They may learn about entrepreneurs or activists who pioneered sustainable business models or introduced innovative technologies.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to circular business practices.</p>	<p>issues.</p>	<p>and Justice:</p> <p>Learners will learn about regulations and policies that govern business practices and environmental protection. They will understand how democratic processes can influence laws and regulations that support circular economy initiatives.</p> <p>British Values:</p> <p>Through discussions about circular business practices and innovation, learners will reflect on British values such as fairness,</p>
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longevity.

**Living Things
and their
Habitats:**

Learners will investigate circular approaches to habitat restoration and conservation, such as rewilding or ecosystem-based management strategies, and discuss their benefits for biodiversity and ecosystem health.

They will learn about innovative technologies, such as drones or

They will discuss how past events and actions have influenced present-day approaches to sustainability in business.

responsibility, and sustainability. They will recognize the importance of these values in shaping business decisions and actions.

satellite imaging, and discuss their potential for supporting environmental monitoring and conservation efforts.

Light and Sound:

Learners will learn about renewable energy sources, such as solar or wind power, and discuss innovative business models, such as energy cooperatives or peer-to-peer energy trading platforms, that promote decentralised energy

production and distribution.

They will explore the concept of circular cities and discuss innovative urban planning strategies, such as green infrastructure or zero-waste initiatives, that promote resource efficiency and sustainability.

Picture Books:

"The Boy Who Harnessed the Wind" by William Kamkwamba and Bryan Mealer - Tells the inspiring true story of a young boy who builds a windmill

from recycled materials to bring electricity to his village in Malawi.

"Ada Twist, Scientist" by Andrea Beaty - Celebrates curiosity and innovation, inspiring children to pursue their passions and explore creative solutions to real-world problems.

"Rosie Revere, Engineer" by Andrea Beaty - Encourages perseverance and creativity, following the story of a young girl who dreams of becoming an engineer and invents a flying machine from

		recycled materials.				
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Local Economies and Community Engagement (CIRC 7)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Reading: Learners will be able to read and comprehend selected picture books on local communities and community engagement in the circular economy,	Learners will develop an understanding of local communities and community engagement while applying mathematical concepts of number and place value,	Learners will develop an understanding of local economies and community engagement within the circular economy, integrating concepts from science and geography. They	Learners will develop foundational understanding and practical skills in local communities and community engagement, focusing on economic projects for the circular	Learners will develop a basic understanding of local economies and community engagement within the circular economy, recognizing their role in	Learners will explore local economies and community engagement within the context of the circular economy through creative activities in art, music, and physical education, fostering an	Learners will explore Local Economies and Community Engagement within the context of the circular economy, focusing on personal, social, health, and economic education (PSHE), citizenship, health

<p>such as</p> <p>"Ada's Violin" by Susan Hood</p> <p>"The Water Princess" by Susan Verde,</p> <p>Identifying key age-appropriate vocabulary related to local communities, community engagement, and the circular economy, such as "neighbourhood," "collaboration," "community," "resourcefulness," and "sustainability."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs using vocabulary related to local communities and community engagement,</p>	<p>addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to local communities and community engagement, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied</p>	<p>will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the importance of community involvement in promoting sustainable practices, supporting local businesses, and fostering environmental</p>	<p>economy, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore how communities can work together to promote sustainability, create economic opportunities, and foster positive change. By the end of the learning experience, learners will be able to</p>	<p>promoting sustainability and fostering community resilience. They will explore changes within living memory, events beyond living memory, significant historical figures, and historical interpretation related to local economies and community initiatives. Through interactive activities, learners will learn about eco-friendly practices that support local businesses and strengthen community bonds. By the end of the</p>	<p>understanding of community interconnectedness and sustainable practices.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings depicting local businesses and community initiatives that promote circular economy principles. They may draw scenes of farmers' markets, community gardens, or recycling centres, highlighting the role of local economies in sustainable</p>	<p>and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will develop an understanding of how local communities play a vital role in promoting sustainability and circular practices.</p> <p>Applied Examples:</p> <p>Understanding Local Economies:</p> <p>Learners will explore the concept of local economies and how businesses, schools, and community organisations</p>
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<p>demonstrating understanding by describing simple actions they can take to contribute to their local community's efforts towards sustainability, such as "I can help clean up litter in my neighbourhood" or "I can plant trees in a community garden."</p> <p>Speaking and Listening: Objective: By the end of the unit, students will be able to engage in conversations about local communities and community engagement in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of</p>	<p>Examples:</p> <p>Number and Place Value:</p> <p>Learners will count and compare the number of community members participating in a local clean-up event, reinforcing place value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total amount of trash collected during a community clean-up and subtract any recyclable items to find the amount of waste diverted from the</p>	<p>stewardship.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in investigations to explore local ecosystems and habitats, identifying opportunities for community-based conservation efforts and restoration projects.</p> <p>They will conduct fieldwork to observe seasonal changes in their local environment and document the impact of</p>	<p>demonstrate basic knowledge of community engagement in the circular economy and apply simple strategies to contribute to economic projects in their local area.</p> <p>Applied Examples:</p> <p>Understanding Local Communities and Community Engagement:</p> <p>Learners will engage in storytelling activities and discussions to learn about the concept of community and</p>	<p>learning experience, learners will be able to demonstrate introductory knowledge of local economies and community engagement and their importance in creating a circular economy.</p> <p>Applied Examples:</p> <p>Exploring Local Economies:</p> <p>Learners will engage in discussions and activities to understand the concept of</p>	<p>development.</p> <p><i>Collage:</i> Learners will make collages showcasing elements of their local community engaged in circular economy practices. They may collage images of local businesses, community events, and environmental initiatives that contribute to resource conservation and waste reduction.</p> <p>Music:</p> <p><i>Singing:</i> Learners will sing songs about their local community and its connection to the</p>	<p>contribute to the economic vitality of their communities. They will learn about businesses that prioritise sourcing materials locally and supporting local suppliers.</p> <p>Community Engagement in Waste Reduction:</p> <p>Through interactive discussions and activities, learners will understand how communities can come together to address waste management challenges. They will explore initiatives such as community clean-up events, recycling drives,</p>
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<p>community initiatives aimed at promoting sustainability, such as neighbourhood clean-up events or community gardens, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of local communities and community engagement.</p>	<p>landfill.</p> <p>Multiplication and Division: Learners will multiply the number of trees planted in a community garden by the number of fruits each tree produces to find the total yield, or divide the total yield among community members.</p> <p>Fractions: Learners will explore the concept of fractions by sharing equally the amount of compost generated from food waste among different</p>	<p>human activities on wildlife and natural resources.</p> <p>1. Plants: Learners will learn about community gardens and urban agriculture initiatives, discussing the benefits of locally grown produce for health, sustainability, and community resilience.</p> <p>They will participate in gardening activities, planting and caring for native plants to support local</p>	<p>the importance of working together for the common good.</p> <p>They will explore examples of community projects, such as neighbourhood clean-up initiatives or community gardens, that promote sustainability and cooperation.</p> <p>Computer Science and Computational Thinking: Learners will participate in coding activities or use educational apps</p>	<p>local economies and their connection to sustainability and community well-being.</p> <p>They will learn about the importance of supporting local businesses and producers to reduce environmental impact and promote economic resilience.</p> <p>Learning About Specific Eco Engineers and Inventors:</p>	<p>circular economy. They may learn and perform songs that celebrate local businesses, community gardens, or recycling programs, emphasizing the importance of community engagement in sustainability efforts.</p> <p><i>Playing Instruments:</i> Learners will play musical instruments to accompany songs related to local economies and community engagement. They may use percussion instruments to create rhythms inspired by the</p>	<p>and composting programs.</p> <p>PSHE and Citizenship: Learners will discuss the importance of active citizenship and community participation in promoting environmental sustainability. They will learn about their role as responsible members of their local community and how they can contribute to positive change.</p> <p>Health and Wellbeing:</p>
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	<p>garden plots.</p> <p>Measurement: Learners will measure the dimensions of a community garden plot and calculate the area or perimeter, reinforcing measurement concepts.</p> <p>Geometry:</p> <p>Learners will identify shapes and their properties in community structures or landmarks, such as the symmetry of a playground or the geometric patterns of a mural.</p>	<p>pollinators and wildlife.</p> <p>Animals, including humans:</p> <p>Learners will investigate the role of local food systems in promoting food security and reducing carbon emissions associated with transportation.</p> <p>They will learn about community-supported agriculture (CSA) programs and discuss the benefits of supporting local farmers and</p>	<p>to learn about the role of technology in community engagement and economic projects.</p> <p>They will explore simple algorithms for organising community events or managing resources for economic projects, such as scheduling volunteer shifts or tracking expenses.</p> <p>Information Technology and Digital Literacy:</p>	<p>Learners will be introduced to specific eco engineers and inventors who have contributed to local economies and community initiatives.</p> <p>They may learn about individuals like Wangari Maathai, who founded the Green Belt Movement to promote environmental conservation and community empowerment, or Jaime Lerner, who implemented sustainable urban planning</p>	<p>sounds of their community or play melodies that evoke a sense of local pride and environmental stewardship.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will participate in games that promote teamwork, cooperation, and community engagement. They may play games that simulate community cleanup activities, gardening projects, or collaborative recycling initiatives, reinforcing the</p>	<p>Learners will recognize the connection between a healthy environment and community wellbeing. They will explore how initiatives such as community gardens, green spaces, and sustainable transportation options can enhance both physical and mental health.</p> <p>Financial Literacy:</p> <p>Learners will understand the economic benefits of supporting local businesses and initiatives. They will learn about the</p>
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	<p>Statistics:</p> <p>Learners will collect data on the number of community members participating in different events and represent it using bar graphs or pie charts, analysing trends and proposing improvements.</p> <p>Picture Books:</p> <p>"The Curious Garden" by Peter Brown - Illustrates the transformative power of gardening and nature in urban environments.</p> <p>"Last Stop on Market Street" by</p>	<p>producers.</p> <p>Everyday Materials:</p> <p>Learners will explore local recycling and waste management programs, learning about the importance of separating and sorting recyclable materials to minimise landfill waste.</p> <p>They will participate in waste audits to assess the amount and types of waste generated by their school or community and</p>	<p>Learners will use digital devices or software tools to explore online resources about community engagement and economic projects.</p> <p>They will learn basic internet safety rules related to online communication with community members, such as being respectful and avoiding sharing personal information.</p> <p>Designing and Making:</p> <p>Learners will</p>	<p>strategies in Curitiba, Brazil.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in their local communities and economies within their own lives or communities.</p> <p>They will discuss how community initiatives and sustainable practices have evolved over time to address environmental and social</p>	<p>idea of working together for the benefit of the community.</p> <p><i>Dance:</i> Learners will engage in dance activities inspired by the spirit of community and environmental responsibility. They may choreograph dances that symbolise cooperation, unity, and the interconnectedness of people and nature in their local area.</p>	<p>concept of "buying local" and how it can contribute to the economic resilience of their community.</p> <p>Rights and Responsibilities:</p> <p>Learners will discuss the rights and responsibilities of community members in promoting sustainability and environmental stewardship. They will explore how individuals can advocate for policies and practices that benefit the community and the environment.</p>
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	<p>Matt de la Peña - Explores the diversity and vibrancy of a city neighbourhood through the eyes of a young boy and his grandmother.</p> <p>"What Do You Do with an Idea?" by Kobi Yamada - Encourages creativity and perseverance as a young child learns to nurture and share their ideas with the</p>	<p>brainstorm solutions for reducing waste.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in their local environment throughout the year, such as changes in temperature or precipitation, and discuss the impact of climate change on their community.</p> <p>They will explore ways to reduce energy consumption and promote energy efficiency in their homes and schools, such as turning off lights</p>	<p>engage in creative activities, such as designing posters or creating flyers, to promote community events and economic projects.</p> <p>They will participate in hands-on making activities, such as creating artwork or crafts to sell at community fairs, to contribute to economic projects and raise awareness about sustainability.</p> <p>Evaluating and</p>	<p>challenges.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to the development of local economies and community engagement.</p> <p>They may learn about historical movements or initiatives that promoted local self-sufficiency or community-based economic</p>		<p>Democracy, Law, and Justice:</p> <p>Learners will learn about democratic processes at the local level and how community decisions are made. They will understand the role of local government in implementing policies related to waste management, environmental protection, and sustainable development.</p> <p>British Values:</p> <p>Through discussions about local economies and community engagement,</p>
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		<p>when not in use or using natural ventilation instead of air conditioning.</p> <p>Living Things and their Habitats:</p> <p>Learners will learn about local biodiversity hotspots and conservation areas, discussing the importance of preserving natural habitats for native plants and animals.</p> <p>They will participate in habitat restoration projects, planting trees or native vegetation to</p>	<p>Technical Knowledge:</p> <p>Learners will evaluate the impact of community engagement initiatives on the local economy and environment, discussing factors such as job creation and resource conservation.</p> <p>They will learn basic technical knowledge about economic projects and sustainability practices, such as the benefits of supporting local businesses and using</p>	<p>development.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures who have influenced local economies and community engagement.</p> <p>They may learn about social reformers or activists who advocated for cooperative enterprises or community-led</p>		<p>learners will reflect on British values such as community spirit, cooperation, and social responsibility. They will recognize the importance of these values in building strong, resilient communities.</p>
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		<p>create wildlife corridors and improve habitat connectivity.</p> <p>Light and Sound:</p> <p>Learners will explore local initiatives to reduce light pollution and protect dark skies, learning about the importance of preserving natural nightscapes for wildlife and human health.</p> <p>They will investigate soundscapes in their local environment,</p>	<p>renewable resources.</p>	<p>development projects.</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to local economies and community initiatives.</p> <p>They will discuss how past events and actions have shaped present-day approaches to sustainability and community</p>		
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		<p>identifying sources of noise pollution and discussing strategies for minimising disturbances to wildlife and ecosystems.</p> <p>Picture Books:</p> <p>"The Curious Garden" by Peter Brown - Tells the story of a boy who transforms a dreary cityscape into a vibrant garden oasis, inspiring community engagement and environmental stewardship.</p> <p>"Last Stop on Market Street" by Matt de la Peña - Follows the</p>		development.		
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		<p>journey of a boy and his grandmother as they ride the bus through their city, highlighting the beauty and diversity of urban life.</p> <p>"Our Community Garden" by Barbara Pollak - Celebrates the power of community gardening to bring people together, promote healthy living, and create green spaces in urban environments.</p>				
Environmental Impact and Resource Conservation (CIRC8)						

English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
<p>Reading:Learners will be able to read and comprehend selected picture books on environmental impact and resource conservation in the circular economy, such as</p> <p>"The Earth Book" by Todd Parr or</p> <p>"Michael Recycle" by Ellie Bethel, identifying key age-appropriate vocabulary related to environmental impact, resource conservation, and the circular economy, such as "planet,"</p>	<p>conservation with mathematical concepts for second-grade students:</p> <p>Learning Objective: Learners will develop an understanding of environmental impact and resource conservation while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions,</p>	<p>Learners will develop an understanding of environmental impact and resource conservation within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their</p>	<p>Learning Objective: Learners will develop foundational understanding and practical skills in understanding environmental impact and resource conservation within the circular economy, integrating age-appropriate concepts from computer science, information technology, digital literacy,</p>	<p>Learners will develop a basic understanding of environmental impact and resource conservation within the circular economy, focusing on eco engineers and inventors from the UK. They will explore changes within living memory, events beyond living memory, significant historical figures, and</p>	<p>Learners will explore environmental impact and resource conservation within the context of the circular economy through creative activities in art, music, and physical education, fostering an understanding of the importance of protecting natural resources and reducing waste.</p> <p>Applied Examples:</p>	<p>Learners will explore Environmental Impact and Resource Conservation within the circular economy context, focusing on personal, social, health, and economic education (PSHE), citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will develop an understanding of the importance of protecting the</p>

<p>"nature," "conservation," "reuse," and "cycle."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs using vocabulary related to environmental impact and resource conservation, demonstrating understanding by describing simple actions they can take to reduce their environmental footprint and conserve resources, such as "I can turn off lights when I leave the room" or "I can use both sides of the paper before recycling it."</p> <p>Speaking and Listening: Learners will be able to engage in</p>	<p>measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to environmental impact and resource conservation, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value: Learners will count and</p>	<p>habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the importance of reducing environmental footprint, conserving natural resources, and promoting sustainable practices for a healthier planet.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p>	<p>designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore how their actions affect the environment and how they can contribute to conserving resources and promoting sustainability. By the end of the learning experience, learners will be able to demonstrate basic knowledge of environmental impact and resource conservation and apply simple strategies to</p>	<p>historical interpretation related to environmental conservation and resource management. Through age-appropriate activities, learners will learn about eco-friendly practices pioneered by UK-based innovators that contribute to a more sustainable environment. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of environmental impact and resource conservation</p>	<p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings depicting environmental scenes, such as forests, oceans, or habitats of animals, and illustrate ways to conserve resources and reduce waste. They may draw images of recycling bins, renewable energy sources, or sustainable transportation methods.</p> <p><i>Painting:</i> Learners will use paints to create artwork that showcases the beauty of nature and highlights the</p>	<p>environment and conserving resources for a sustainable future.</p> <p>Applied Examples:</p> <p>Understanding Environmental Impact:</p> <p>Learners will investigate how human activities impact the environment, including pollution, deforestation, and habitat destruction. They will explore how these activities affect wildlife and ecosystems.</p> <p>Resource Conservation</p>
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<p>conversations about environmental impact and resource conservation in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of how their actions can positively impact the environment, such as using reusable water bottles or picking up litter in their community, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of environmental impact and resource conservation.</p>	<p>compare the number of trees saved by using both sides of paper, reinforcing place value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total amount of water saved by turning off the tap while brushing teeth or taking shorter showers and subtract it from the total daily water usage.</p> <p>Multiplication and Division:</p> <p>Learners will multiply the number of light bulbs replaced with energy-efficient</p>	<p>Learners will engage in investigations to explore the environmental impact of human activities on local ecosystems, such as pollution or habitat destruction.</p> <p>They will conduct fieldwork to observe changes in their local environment and document evidence of human impact on wildlife and natural resources.</p> <p>Plants:</p> <p>Learners will</p>	<p>minimise waste and protect natural resources.</p> <p>Applied Examples:</p> <p>Understanding Environmental Impact and Resource Conservation:</p> <p>Learners will engage in storytelling activities and discussions to learn about the concept of environmental impact and the importance of conserving natural resources.</p> <p>They will explore</p>	<p>and their significance in creating a circular economy, with a focus on UK contributions.</p> <p>Applied Examples:</p> <p>Exploring Environmental Impact:</p> <p>Learners will engage in discussions and activities to understand how human actions impact the environment, with a focus on examples from the UK.</p> <p>They will learn</p>	<p>need to protect the environment. They may paint landscapes with vibrant colours to represent healthy ecosystems and use recycled materials as painting tools to emphasise resource conservation.</p> <p>Music:</p> <p><i>Singing:</i> Learners will sing songs about nature conservation and resource preservation. They may learn and perform songs that celebrate the importance of recycling, energy conservation, or protecting wildlife</p>	<p>Practices:</p> <p>Through interactive activities, learners will learn about the importance of conserving natural resources such as water, energy, and materials. They will discuss simple actions they can take to reduce waste and use resources more efficiently.</p> <p>PSHE and Citizenship:</p> <p>Learners will discuss their role as responsible stewards of the environment and active citizens in promoting conservation</p>
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	<p>bulbs by the amount of energy saved per bulb to find the total energy savings, or divide the total energy savings by the number of households to find the average savings per household.</p> <p>Fractions: Learners will explore the concept of fractions by comparing the amount of food waste composted to the total amount of food waste generated.</p> <p>Measurement: Learners will measure the dimensions of reusable</p>	<p>learn about the importance of forests and green spaces for biodiversity and ecosystem health, discussing the benefits of tree planting and habitat restoration.</p> <p>They will participate in tree planting activities, helping to restore degraded habitats and create wildlife corridors.</p> <p>Animals, including humans: Learners will investigate the impact of human</p>	<p>examples of how everyday activities, such as using water and electricity, can impact the environment and contribute to resource depletion.</p> <p>Computer Science and Computational Thinking: Learners will participate in coding activities or use educational apps to learn about the environmental impact of different actions and behaviours.</p>	<p>about simple actions they can take to reduce their environmental footprint, such as recycling and conserving energy.</p> <p>Learning About Specific Eco Engineers and Inventors from the UK: Learners will be introduced to specific eco engineers and inventors from the UK who have contributed to environmental conservation and resource</p>	<p>habitats, fostering a sense of environmental stewardship.</p> <p><i>Listening and Appraising:</i> Learners will listen to environmental-the med music and discuss how it reflects concepts of resource conservation and sustainability. They may listen to songs with lyrics about environmental activism or nature-inspired melodies that evoke a sense of environmental awareness.</p> <p>Physical</p>	<p>efforts. They will explore how individual actions, such as recycling, reusing, and reducing waste, can have a positive impact on the environment.</p> <p>Health and Wellbeing: Learners will understand the link between environmental health and personal wellbeing. They will explore how pollution and environmental degradation can affect air and water quality, leading to health problems for humans and</p>
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	<p>shopping bags and calculate how many single-use plastic bags they can replace, reinforcing measurement concepts.</p> <p>Geometry: Learners will identify shapes and their properties in recycling bins or compost containers, such as the symmetry of the bins or the geometric patterns of recycling symbols.</p> <p>Statistics: Learners will collect data on energy usage in their homes or classrooms and represent it using</p>	<p>activities on wildlife habitats and populations, learning about endangered species and conservation efforts.</p> <p>They will learn about sustainable fishing practices and discuss the importance of protecting marine ecosystems from overfishing and habitat destruction.</p> <p>Everyday Materials:</p> <p>Learners will explore the lifecycle of common household items,</p>	<p>They will explore simple algorithms for identifying ways to reduce waste and conserve resources, such as turning off lights when leaving a room or using reusable containers instead of disposable ones.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to explore online resources about environmental conservation and</p>	<p>management.</p> <p>They may learn about individuals such as James Dyson, inventor of innovative vacuum cleaners and air purifiers, or Isambard Kingdom Brunel, a pioneering engineer known for sustainable engineering practices.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on</p>	<p>Education (PE):</p> <p><i>Games:</i> Learners will participate in games that promote awareness of environmental issues and encourage sustainable behaviour. They may play games that simulate recycling races, nature scavenger hunts, or relay races focused on conserving energy and water.</p> <p><i>Dance:</i> Learners will engage in dance activities inspired by the natural world and environmental themes. They may choreograph</p>	<p>wildlife.</p> <p>Financial Literacy:</p> <p>Learners will learn about the economic benefits of resource conservation and sustainability. They will explore concepts such as saving money through energy-efficient practices and the long-term cost savings of reducing waste.</p> <p>Rights and Responsibilities:</p> <p>Learners will discuss their rights to live in a clean and healthy</p>
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	<p>bar graphs or line plots, analysing trends and proposing strategies for energy conservation.</p> <p>Picture Books:</p> <p>"The Earth Book" by Todd Parr - Introduces environmental concepts and the importance of sustainability.</p> <p>"The Lorax" by Dr. Seuss - Raises awareness about environmental conservation and the impact of human activity on nature.</p> <p>"One Plastic Bag: Isatou Ceesay</p>	<p>such as plastic bottles or paper products, and discuss strategies for reducing consumption and waste.</p> <p>They will participate in recycling and composting activities, learning how to sort and separate materials for proper disposal and resource recovery.</p> <p>Seasonal Changes:</p> <p>Learners will observe changes in their local environment throughout the</p>	<p>sustainability.</p> <p>They will learn basic internet safety rules related to online research, such as identifying reliable sources of information and avoiding misinformation about environmental issues.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing posters or creating artwork, to raise awareness</p>	<p>changes they have observed in their environment within their own lives or communities in the UK.</p> <p>They will discuss how environmental initiatives and conservation efforts have evolved over recent years.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to</p>	<p>dances that depict movements of animals, plants, or elements of nature, highlighting the interconnectedness of all living things and the importance of preserving ecosystems.</p>	<p>environment and their responsibilities to protect the planet for future generations. They will explore how individual actions can contribute to collective efforts to address environmental challenges.</p> <p>Democracy, Law, and Justice:</p> <p>Learners will learn about environmental laws and regulations aimed at protecting natural resources and reducing pollution. They will explore the role of government agencies and environmental organisations in</p>
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	<p>and the Recycling Women of the Gambia" by Miranda Paul - Tells the true story of a woman who leads a recycling movement in her community to clean up plastic waste.</p>	<p>year, such as changes in temperature or precipitation, and discuss the impact of climate change on ecosystems and wildlife.</p> <p>They will explore ways to reduce energy consumption and promote energy efficiency in their homes and schools, such as using natural lighting or reducing water usage.</p> <p>Living Things and their Habitats:</p> <p>Learners will</p>	<p>about environmental impact and resource conservation.</p> <p>They will participate in hands-on making activities, such as upcycling projects or creating reusable items, to practise resource conservation and promote sustainability.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate their own</p>	<p>environmental conservation in the UK, such as the establishment of national parks or conservation legislation.</p> <p>They may learn about historical figures like Sir David Attenborough, whose documentaries have raised awareness about environmental issues globally</p> <p>Sir Authur Hobhouse and UK national Parks - Dower</p>		<p>enforcing these laws.</p> <p>British Values:</p> <p>Through discussions about environmental impact and resource conservation, learners will reflect on British values such as respect for the environment, community responsibility, and social justice. They will recognize the importance of these values in building a sustainable and equitable society.</p>
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		<p>learn about the interconnectedness of living organisms and their habitats, discussing the importance of preserving biodiversity and protecting endangered species.</p> <p>They will participate in habitat restoration projects, planting native vegetation and creating wildlife-friendly habitats in their school or community.</p> <p>Light and Sound:</p>	<p>environmental impact and identify ways to reduce waste and conserve resources in their daily lives.</p> <p>They will learn basic technical knowledge about environmental conservation practices, such as the importance of recycling and using energy-efficient appliances.</p>	<p>report 1947.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures from the UK who have influenced environmental conservation efforts.</p> <p>They may learn about figures such as Beatrix Potter, known for her conservation work in the Lake District, or John Muir,</p>		
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		<p>Learners will explore the concept of light pollution and its impact on nocturnal wildlife, learning about the importance of preserving natural nightscapes.</p> <p>They will investigate soundscapes in their local environment, identifying sources of noise pollution and discussing strategies for minimising disturbances to wildlife and ecosystems.</p>		<p>whose advocacy led to the creation of national parks in USA</p> <p>Historical Interpretation:</p> <p>Learners will engage in simple activities to interpret historical photographs or artefacts related to environmental conservation in the UK.</p> <p>They will discuss how past environmental movements and initiatives</p>		
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		<p>Picture Books:</p> <p>"The Great Kapok Tree: A Tale of the Amazon Rainforest" by Lynne Cherry - Raises awareness about rainforest conservation and the importance of protecting biodiversity.</p> <p>"Michael Recycle" by Ellie Bethel - Encourages children to reduce, reuse, and recycle waste to help protect the environment.</p> <p>"The Earth Book" by Todd Parr - Celebrates the beauty and diversity of our planet while</p>		<p>have shaped present-day attitudes towards conservation and sustainability in the UK.</p>		
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		teaching children simple ways to care for the environment.				
Critical Thinking and Problem-Solving (CIRC 9)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Learners will develop critical thinking and problem-solving skills within the context of the circular economy, enabling them to identify challenges, explore solutions,	Learners will develop critical thinking and problem-solving skills while applying mathematical concepts of	Learners will develop critical thinking and problem-solving skills within the circular economy, integrating concepts from	Learners will develop foundational critical thinking and problem-solving skills within the context of the circular	Learners will cultivate critical thinking and problem-solving skills within the context of the circular economy, focusing on	Learners will develop critical thinking and problem-solving skills within the context of the circular economy through engaging activities in art,	Learners will develop critical thinking and problem-solving skills within the context of the circular economy, focusing on personal, social,

<p>and communicate their ideas effectively.</p> <p>Applied Examples:</p> <p>English:</p> <p><i>Reading:</i> Learners will read age-appropriate stories or informational texts about sustainability, recycling, and environmental conservation. They will analyze characters' actions and decisions related to waste reduction, resource conservation, and innovation in the circular economy.</p> <p><i>Writing:</i> Learners will write short narratives or persuasive texts</p>	<p>number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to critical thinking and problem solving, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied</p>	<p>science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate real-world challenges related to sustainability and waste management, analyse the impact of human</p>	<p>economy, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore how to identify challenges related to sustainability and apply creative solutions to address them. By the end of the learning experience, learners will be able to</p>	<p>specific eco engineers and inventors from the UK excluding David Attenborough. They will explore changes within living memory, events beyond living memory, significant historical figures, and historical interpretation related to problem-solving in environmental conservation. Through age-appropriate activities, learners will develop the ability to analyze challenges and propose solutions for</p>	<p>music, and physical education, fostering creativity and innovative thinking to address environmental challenges.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will use drawing to visualise solutions to environmental problems within the circular economy. For example, they may draw inventions or designs that promote recycling, reduce waste, or conserve resources.</p>	<p>health, and economic education (PSHE), citizenship, health and wellbeing, financial literacy, rights and responsibilities, democracy, law and justice, and British values. They will learn to analyse problems, think creatively, and explore solutions that promote sustainability and environmental stewardship.</p> <p>Applied Examples:</p> <p>Identifying Environmental Challenges:</p> <p>Learners will identify environmental</p>
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<p>advocating for specific actions to promote sustainability within their community or school. They may draft letters to local authorities suggesting ways to reduce waste or improve recycling practices.</p> <p><i>Speaking and Listening:</i> Learners will engage in discussions about real-world environmental issues, sharing their perspectives and listening to their peers' ideas. They will participate in group activities such as brainstorming sessions to generate creative solutions to environmental</p>	<p>Examples:</p> <p>Number and Place Value: Learners will use critical thinking skills to identify patterns and relationships in number sequences, reinforcing place value concepts.</p> <p>Addition and Subtraction: Learners will solve word problems involving addition and subtraction, such as calculating the total cost of items purchased at a store or determining how much change to expect.</p> <p>Multiplication</p>	<p>activities on the environment, and propose innovative solutions to promote resource efficiency and environmental stewardship.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in hands-on investigations to explore the lifecycle of everyday materials and identify opportunities for reducing waste and promoting reuse and</p>	<p>demonstrate basic critical thinking skills and apply simple problem-solving strategies to promote environmental sustainability and circularity.</p> <p>Applied Examples:</p> <p>Exploring Environmental Challenges:</p> <p>Learners will engage in storytelling activities and discussions to identify environmental challenges faced by their communities, such as plastic pollution or</p>	<p>sustainable practices. By the end of the learning experience, learners will demonstrate introductory critical thinking and problem-solving skills applicable to environmental issues within the circular economy, with a focus on UK contributions excluding David Attenborough.</p> <p>Applied Examples:</p> <p>Exploring Critical Thinking and Problem</p>	<p>Sculpture: Learners will sculpt models of eco-friendly inventions or solutions using recycled materials. They may create sculptures of sustainable buildings, renewable energy sources, or imaginative machines that contribute to a circular economy.</p> <p>Music:</p> <p><i>Listening and Appraising:</i> Learners will listen to environmental-themed music and analyse lyrics to identify problems and propose</p>	<p>challenges in their community, such as littering or excessive waste, and discuss their impact on the environment and community health.</p> <p>Brainstorming Solutions:</p> <p>In small groups, learners will brainstorm ideas for addressing the identified environmental challenges. They will consider creative solutions that promote recycling, reduce waste, or conserve resources.</p> <p>Analysing Cause</p>
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<p>challenges.</p>	<p>and Division:</p> <p>Learners will use critical thinking skills to solve multiplication and division word problems, such as calculating the total number of items in equal groups or determining how many groups can be made from a given quantity.</p> <p>Fractions:</p> <p>Learners will apply critical thinking skills to compare and order fractions, such as determining which fraction represents a greater or lesser</p>	<p>recycling.</p> <p>They will conduct experiments to test different materials for durability, recyclability, and environmental impact, promoting critical thinking and problem-solving skills.</p> <p>Plants:</p> <p>Learners will analyse the role of plants in the carbon cycle and discuss strategies for increasing carbon sequestration through reforestation and habitat</p>	<p>energy waste.</p> <p>They will explore examples of how these challenges impact the environment and the importance of finding solutions to address them.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in coding activities or use educational apps to develop computational thinking skills.</p>	<p>Solving:</p> <p>Learners will engage in activities to identify environmental challenges within their local community or daily life.</p> <p>They will brainstorm potential solutions and evaluate their feasibility, considering factors such as resource conservation and waste reduction.</p> <p>Learning About</p>	<p>solutions. They may listen to songs about pollution, waste reduction, or conservation efforts, discussing ways to address these issues.</p> <p><i>Composing:</i> Learners will compose their own songs or musical pieces inspired by environmental challenges and circular economy principles. They may write lyrics advocating for sustainability or create melodies that convey hope for a greener future.</p> <p>Physical</p>	<p>and Effect:</p> <p>Through guided discussions, learners will analyse the root causes of environmental problems and their interconnectedness with human activities. They will explore how individual actions contribute to larger environmental issues.</p> <p>Decision-Making Exercises:</p> <p>Learners will engage in decision-making exercises where they must weigh the pros and cons of different</p>
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	<p>amount.</p> <p>Measurement:</p> <p>Learners will use critical thinking skills to solve measurement problems, such as determining the area or perimeter of irregular shapes.</p> <p>Geometry:</p> <p>Learners will apply critical thinking skills to identify and classify shapes, such as determining whether a shape is a polygon or a non-polygon.</p> <p>Statistics:</p>	<p>restoration.</p> <p>They will investigate innovative gardening techniques, such as companion planting or vertical gardening, and discuss their potential for maximising resource efficiency and promoting biodiversity.</p> <p>Animals, including humans:</p> <p>Learners will explore the environmental impact of food production and</p>	<p>They will explore simple algorithms for solving environmental challenges, such as sorting recyclable materials or optimising energy usage.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to research environmental issues and potential solutions.</p> <p>They will learn basic internet</p>	<p>Specific Eco Engineers and Inventors from the UK</p> <p>Learners will be introduced to specific eco engineers and inventors from the UK who have applied critical thinking to address environmental issues.</p> <p>They may learn about individuals such as James Dyson, inventor of innovative household appliances, or Isambard Kingdom Brunel, known</p>	<p>Education (PE):</p> <p><i>Games:</i> Learners will engage in problem-solving games that require cooperation and critical thinking to overcome environmental obstacles. They may play games that simulate clean-up efforts, recycling challenges, or teamwork activities focused on preserving natural habitats.</p> <p><i>Dance:</i> Learners will choreograph dances that tell stories about environmental issues and solutions. They may create dance</p>	<p>environmental actions. For example, they may discuss whether to use reusable or disposable items and consider the environmental impact of each choice.</p> <p>Problem-Solving Scenarios:</p> <p>Learners will participate in problem-solving scenarios related to resource conservation and waste reduction. They will work together to find practical solutions to common environmental problems encountered in</p>
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	<p>Learners will use critical thinking skills to analyse data and draw conclusions, such as identifying trends or patterns in a set of data.</p> <p>Picture Books:</p> <p>"Rosie Revere, Engineer" by Andrea Beaty - Encourages creativity, perseverance, and problem-solving skills as a young girl invents gadgets and machines to solve problems.</p> <p>"The Most Magnificent Thing" by Ashley Spires - Teaches the importance of</p>	<p>consumption, analysing the carbon footprint of different diets and discussing strategies for promoting sustainable food choices.</p> <p>They will investigate the concept of food waste and propose solutions for reducing waste at home, school, and in the community, fostering critical thinking and problem-solving skills.</p> <p>Everyday Materials:</p> <p>Learners will</p>	<p>safety rules related to online research, such as identifying credible sources of information and avoiding misinformation about environmental topics.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing posters or creating models, to propose solutions to environmental challenges.</p> <p>They will</p>	<p>for his problem-solving skills in sustainable engineering projects.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in environmental practices within their own lives or communities in the UK.</p> <p>They will identify problems that have arisen and discuss potential</p>	<p>routines that illustrate the impact of pollution, the importance of recycling, or the beauty of nature, encouraging empathy and creative problem-solving.</p>	<p>daily life.</p> <p>Role-Playing Activities:</p> <p>Through role-playing activities, learners will put themselves in the shoes of eco-conscious citizens, community leaders, or environmental advocates. They will practice advocating for sustainable practices and finding solutions to environmental challenges.</p> <p>Reflective Discussions:</p>
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	<p>persistence and resilience in problem-solving as a girl tries to create the most magnificent thing.</p> <p>"What Do You Do with an Idea?" by Kobi Yamada - Inspires curiosity and innovation as a child learns to nurture and share their ideas with the world.</p>	<p>analyse the lifecycle of common household items, such as plastic bottles or electronic devices, and identify opportunities for extending product lifespan through repair, reuse, and recycling.</p> <p>They will participate in design challenges to create innovative solutions for upcycling and repurposing materials, promoting creativity and problem-solving skills.</p>	<p>participate in hands-on making activities, such as building prototypes or creating artwork, to showcase their problem-solving ideas.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the effectiveness of their solutions and consider factors such as feasibility, sustainability, and impact on the environment.</p> <p>They will learn</p>	<p>solutions, considering how past actions have influenced present challenges.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to environmental conservation efforts, such as the Industrial Revolution or the establishment of national parks.</p>		<p>Learners will engage in reflective discussions about the effectiveness of different solutions and their potential impact on the environment and community. They will learn to evaluate the feasibility and sustainability of proposed actions.</p> <p>Promoting British Values:</p> <p>Throughout the learning process, learners will apply British values such as responsibility, fairness, and respect for others' rights and opinions. They will consider how these values</p>
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		<p>materials, promoting critical thinking and creativity.</p> <p>Living Things and their Habitats:</p> <p>Learners will analyse the impact of human activities on local ecosystems and propose solutions for habitat restoration and conservation.</p> <p>They will participate in habitat restoration projects, identifying invasive species and proposing strategies for</p>		<p>They may learn about figures such as Joseph Bazalgette, who solved London's sanitation crisis, or James Watt, whose innovations improved energy efficiency.</p> <p>Historical Interpretation:</p> <p>Learners will engage in activities to interpret historical photographs or artefacts related to environmental challenges and</p>	
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		<p>controlling their spread, fostering critical thinking and problem-solving skills.</p> <p>Light and Sound:</p> <p>Learners will analyse the environmental impact of energy consumption and light pollution, discussing strategies for promoting energy efficiency and reducing light pollution in their community.</p> <p>They will investigate the concept of soundscapes and</p>		<p>solutions.</p> <p>They will discuss the effectiveness of past approaches and consider how similar strategies can be applied to present-day issues.</p>		
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		analyse the impact of noise pollution on wildlife and human health, proposing solutions for minimising disturbances and promoting quiet zones, fostering critical thinking and problem-solving skills.				
Citizenship and Global Responsibility (CIRC 10)						

English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
<p>Reading: Learners will be able to read and comprehend selected picture books on citizenship and global responsibility in the circular economy, such as</p> <p>"Our Earth: How Kids Are Saving the Planet" by Janet Wilson</p> <p>"The Water Princess" by Susan Verde,</p> <p>Identifying key age-appropriate</p>	<p>Learners will develop an understanding of citizenship and global responsibility while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to</p>	<p>Learners will develop an understanding of citizenship and global responsibility within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and</p>	<p>Learners will develop foundational understanding of citizenship and global responsibility within the context of the circular economy, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through</p>	<p>Learners will develop a basic understanding of citizenship and global responsibility within the circular economy, focusing on eco engineers and inventors from the UK excluding David Attenborough. They will explore changes within living memory, events beyond living memory, significant historical</p>	<p>Learners will develop an understanding of citizenship and global responsibility within the context of the circular economy, fostering empathy and a sense of shared responsibility for environmental stewardship and sustainable practices.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners</p>	<p>Learners will develop an understanding of citizenship and global responsibility within the context of the circular economy, focusing on personal, social, health, and economic education (PSHE). They will explore concepts of citizenship, rights, responsibilities, democracy, law, justice, and British values while considering their impact on the environment and the global community.</p>

<p>vocabulary related to citizenship, global responsibility, and the circular economy, such as "community," "sustainability," "stewardship," "interconnectedness," and "environment."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs using vocabulary related to citizenship and global responsibility, demonstrating understanding by describing simple actions they can take to be responsible global citizens, such as "I can pick up trash at the park to help keep the environment clean" or "I can write a letter to my local government asking</p>	<p>citizenship and global responsibility, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value: Students will count and compare the number of items donated to a charity drive, reinforcing place value concepts.</p> <p>Addition and</p>	<p>sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the interconnectedness of local and global environmental issues, analyse the impact of human activities on ecosystems and communities around the world, and explore ways to promote sustainability, equity, and social justice on a global scale.</p> <p>Applied Examples:</p>	<p>interactive and hands-on activities, learners will explore their role as responsible global citizens and the importance of taking action to protect the environment and promote sustainability worldwide. By the end of the learning experience, learners will be able to demonstrate basic awareness of global issues related to the circular economy and apply simple strategies to contribute positively to their local and global communities.</p>	<p>figures, and historical interpretation related to citizenship and global responsibility in environmental conservation. Through age-appropriate activities, learners will learn about the roles they can play as responsible global citizens and how UK-based innovators have contributed to sustainable practices. By the end of the learning experience, learners will be able to demonstrate introductory knowledge of</p>	<p>will create drawings depicting scenes of global cooperation and responsible environmental practices. They may draw people working together to clean up litter, plant trees, or protect endangered species.</p> <p><i>Painting:</i> Learners will paint images that promote unity and collaboration among people of different cultures and backgrounds to address environmental challenges. They may paint landscapes showing diverse communities living in harmony with</p>	<p>Applied Examples:</p> <p>Community Cleanup Projects:</p> <p>Learners will participate in community cleanup projects aimed at reducing waste and improving environmental health. They will understand their role as responsible citizens in preserving natural resources and contributing to a cleaner environment.</p> <p>Recycling Initiatives:</p> <p>Through hands-on</p>
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for more recycling bins."

Speaking and Listening: Learners will be able to engage in conversations about citizenship and global responsibility in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of how they can contribute to a more sustainable world, such as reducing waste, conserving resources, and advocating for environmental protection, as well as listen to their peers and respond with relevant contributions,

Subtraction: Learners will calculate the total amount of money raised from a fundraising event and subtract any expenses to find the net profit.

Multiplication and Division: Learners will use critical thinking skills to solve multiplication and division word problems involving quantities of items donated or money raised.

Fractions: Learners will apply fractions to represent the proportion of resources donated to different causes, such as food

Working Scientifically:

Learners will engage in investigations to explore global environmental challenges, such as climate change or deforestation, and discuss their impact on ecosystems and communities worldwide.

They will conduct fieldwork to observe changes in their local environment and analyse the connections between local actions and global

Applied Examples:

Exploring Global Issues:

Learners will engage in storytelling activities and discussions to learn about global environmental issues, such as climate change or biodiversity loss.

They will explore examples of how these issues affect people and ecosystems around the world and discuss the importance of taking action to

citizenship and global responsibility within the context of the circular economy, with a focus on UK contributions excluding David Attenborough.

Applied Examples:

Exploring Citizenship and Global Responsibility :

Learners will engage in discussions and activities to understand the concept of citizenship and their role as

nature.

Music:

Singing: Learners will learn songs about environmental conservation, cooperation, and global responsibility. They may sing songs that celebrate the beauty of nature, advocate for environmental protection, or highlight the importance of working together to create a sustainable future.

Listening and Appraising: Learners will listen to music from

activities, learners will engage in recycling initiatives within their school or local community. They will learn about the importance of recycling materials to conserve resources and reduce pollution, promoting global responsibility.

Discussing Rights and Responsibilities:

In group discussions, learners will explore the rights and responsibilities they have as members of their community and the global society. They will discuss how these

<p>showing comprehension and application of circular economy concepts in the context of citizenship and global responsibility.</p>	<p>donated to a local food bank.</p> <p>Measurement: Learners will measure the dimensions of items donated for disaster relief efforts and calculate the volume or weight of the donations.</p> <p>Geometry: Learners will identify shapes and their properties in flags or symbols of different countries, fostering an appreciation for global diversity and unity.</p> <p>Statistics: Learners will collect data on the impact of</p>	<p>consequences.</p> <p>Plants:</p> <p>Learners will learn about the importance of tropical rainforests for biodiversity and climate regulation, discussing the global impact of deforestation and habitat destruction.</p> <p>They will explore ways to support reforestation efforts and participate in tree planting initiatives to mitigate the effects of deforestation on</p>	<p>address them.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in coding activities or use educational apps to explore ways technology can be used to address global challenges.</p> <p>They will explore simple algorithms for promoting sustainability, such as calculating carbon footprints or identifying ways to reduce</p>	<p>responsible global citizens.</p> <p>They will learn about the importance of caring for the environment and how their actions can impact communities worldwide.</p> <p>Learning About Specific Eco Engineers and Inventors from the UK</p> <p>Learners will be introduced to specific eco engineers and inventors from the UK who have</p>	<p>various cultures and regions, exploring how different communities express their connection to the environment and their commitment to global responsibility through music.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will participate in cooperative games that emphasise teamwork, communication, and mutual support. They may play games that require collaboration to achieve common goals related to</p>	<p>rights and responsibilities relate to environmental stewardship and sustainable practices.</p> <p>Understanding Democratic Principles:</p> <p>Learners will learn about democratic principles such as equality, participation, and decision-making. They will understand how democratic processes can influence environmental policies and promote sustainable</p>
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	<p>their community service projects and represent it using bar graphs or line plots, analysing trends and proposing improvements.</p> <p>Picture Books:</p> <p>"One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia" by Miranda Paul - Tells the true story of a woman who leads a recycling movement in her community to clean up plastic waste.</p> <p>"Those Shoes" by Maribeth Boelts - Teaches empathy and</p>	<p>a global scale.</p> <p>Animals, including humans:</p> <p>Learners will investigate the impact of human activities on wildlife habitats and populations around the world, learning about endangered species and conservation efforts.</p> <p>They will learn about global initiatives to protect endangered species and discuss ways to promote wildlife conservation and</p>	<p>waste.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to research global environmental issues and potential solutions.</p> <p>They will learn basic internet safety rules related to online communication and collaboration with others who share similar interests in</p>	<p>contributed to environmental sustainability.</p> <p>They may learn about individuals such as James Dyson, inventor of eco-friendly household appliances, or Isambard Kingdom Brunel, known for sustainable engineering practices.</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed</p>	<p>environmental conservation and sustainability.</p> <p><i>Dance:</i> Learners will learn dances inspired by cultural traditions from around the world that celebrate nature, community, and interconnectedness. They may learn dances that tell stories of environmental stewardship and global cooperation.</p>	<p>development.</p> <p>Learning About Global Challenges:</p> <p>Through age-appropriate stories and discussions, learners will explore global environmental challenges such as climate change and pollution. They will develop empathy for communities around the world affected by these challenges and recognize their role in addressing them.</p> <p>Promoting British Values:</p>
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	<p>compassion as a boy learns the value of giving to others in need.</p> <p>"I Walk with Vanessa: A Story About a Simple Act of Kindness" by Kerascoët - Illustrates the power of empathy and standing up for others in the face of bullying.</p>	<p>habitat preservation in their local community.</p> <p>Everyday Materials:</p> <p>Learners will analyse the global impact of consumerism and waste generation, discussing the environmental and social consequences of overconsumption and resource depletion.</p> <p>They will explore ways to reduce their ecological footprint and promote responsible consumption</p>	<p>sustainability.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing posters or creating artwork, to raise awareness about global environmental issues.</p> <p>They will participate in hands-on making activities, such as creating crafts or projects inspired by different cultures, to</p>	<p>in environmental practices within their own lives or communities in the UK.</p> <p>They will discuss how environmental awareness and actions have evolved over recent years.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to global environmental conservation efforts, such as</p>		<p>Learners will reflect on British values such as tolerance, respect, and the rule of law in the context of environmental responsibility. They will understand how these values contribute to a sense of citizenship and promote positive actions towards the environment.</p> <p>Taking Action for Change:</p> <p>Learners will brainstorm ideas for taking action to address environmental issues on a local and global scale. They will</p>
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		<p>practices, such as buying locally produced goods and choosing products with minimal packaging.</p> <p>Seasonal Changes:</p> <p>Learners will explore the global effects of climate change on seasonal patterns and weather phenomena, discussing the importance of reducing greenhouse gas emissions and promoting renewable energy sources.</p> <p>They will learn</p>	<p>promote global solidarity and cooperation in addressing sustainability challenges.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the impact of their actions on the environment and consider ways to minimise negative effects and maximise positive contributions.</p> <p>They will learn basic technical knowledge about global sustainability</p>	<p>international agreements or initiatives.</p> <p>They may learn about events like the formation of the United Nations Environment Programme or the Paris Agreement on climate change.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will be introduced to significant historical figures from the UK who</p>		<p>understand that their individual actions, no matter how small, can contribute to positive change and global responsibility.</p> <p>Reflecting on Impact:</p> <p>Through reflective activities, learners will consider the impact of their actions on the environment and the wider community. They will develop a sense of responsibility for their choices and their role in shaping a sustainable future.</p>
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		<p>about global climate agreements, such as the Paris Agreement, and discuss the role of international cooperation in addressing climate change and promoting sustainability.</p> <p>Living Things and their Habitats:</p> <p>Learners will investigate the global impact of habitat loss and degradation on biodiversity, learning about conservation efforts to protect ecosystems and endangered</p>	<p>initiatives and the role of technology in addressing global challenges, such as renewable energy technologies and sustainable agriculture practices.</p>	<p>have advocated for global environmental responsibility.</p> <p>They may learn about figures such as Joseph Bazalgette, known for his contributions to London's sewage system, or Dorothy Crowfoot Hodgkin, a Nobel Prize-winning chemist who worked on environmental issues.</p> <p>Historical Interpretation:</p>		
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		<p>species.</p> <p>They will explore ways to support global conservation initiatives and participate in community-based projects to protect wildlife habitats and promote biodiversity.</p> <p>Light and Sound:</p> <p>Students will analyse the global effects of light and noise pollution on ecosystems and human health, discussing strategies for reducing light pollution and</p>		<p>Learners will engage in simple activities to interpret historical photographs or artefacts related to global environmental conservation efforts.</p> <p>They will discuss how past global initiatives and movements have influenced present-day attitudes towards environmental responsibility.</p>		
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		<p>minimising noise disturbances.</p> <p>They will learn about global initiatives to protect dark skies and quiet spaces and discuss ways to promote environmental stewardship and responsible tourism on a global scale.</p> <p>Picture Books:</p> <p>"One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia" by Miranda Paul - Tells the true story of Isatou Ceesay, who leads a movement to</p>				
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		<p>recycle plastic bags in her community, inspiring global action against plastic pollution.</p> <p>"The Water Princess" by Susan Verde - Follows the journey of a young girl who dreams of bringing clean water to her village in Africa, highlighting the global issue of water scarcity and the importance of environmental conservation.</p> <p>"Here We Are: Notes for Living on Planet Earth" by Oliver Jeffers - Celebrates the beauty and diversity of our</p>				
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		planet while encouraging children to take care of the Earth and each other, promoting global citizenship and environmental responsibility.				
Food Systems (Circ 11)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Reading: Learners will be able to read and comprehend selected picture books on food systems and agriculture in the circular economy,	Learners will develop an understanding of food systems in the circular economy while applying mathematical concepts of	Learners will develop an understanding of food systems within the circular economy, integrating concepts from science and	Learners will develop foundational understanding of food systems within the context of the circular economy, integrating	Learners will explore food systems within the circular economy, focusing on specific eco engineers and inventors from the UK. They	Learners will develop an understanding of food systems within the context of the circular economy, exploring how food is produced, distributed,	Learners will explore food systems within the circular economy, focusing on personal, social, health, and economic education (PSHE). They will develop

<p>such as</p> <p>"Compost Stew: An A to Z Recipe for the Earth" by Mary McKenna Siddals</p> <p>"The Good Garden: How One Family Went from Hunger to Having Enough" by Katie Smith Milway, identifying key age-appropriate vocabulary related to food systems, agriculture, and the circular economy, such as "farm," "harvest," "compost," "sustainable," and "nutrition."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs using vocabulary related to food systems and agriculture, demonstrating</p>	<p>number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to food systems and the circular economy, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied</p>	<p>geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate the interconnectedness of food production, consumption, and waste management, analyse the environmental</p>	<p>age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore where food comes from, how it is produced, and how they can make environmentally sustainable food choices. By the end of the learning experience, learners will be able to demonstrate basic knowledge</p>	<p>will investigate changes within living memory, events beyond living memory, significant historical figures, and historical interpretation related to food production and sustainability. Through age-appropriate activities, learners will develop an understanding of the role of eco engineers and inventors in shaping food systems and promoting sustainability. By the end of the learning experience, learners will demonstrate introductory knowledge of</p>	<p>consumed, and recycled in sustainable ways to minimize waste and promote environmental health.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings depicting different stages of the food system, such as farming, harvesting, transportation, and consumption. They may draw fruits, vegetables, animals, farmers, markets, and kitchens to illustrate these</p>	<p>an understanding of how food production, consumption, and waste management impact health, well-being, and the environment.</p> <p>Applied Examples:</p> <p>Farm-to-Table Activities:</p> <p>Learners will engage in farm visits or virtual tours to understand where food comes from and how it reaches their plates. They will learn about sustainable farming practices that promote biodiversity and reduce environmental</p>
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<p>understanding by describing simple actions they can take to support sustainable food practices, such as "I can plant vegetables in a garden" or "I can compost food scraps instead of throwing them away."</p> <p>Speaking and Listening:</p> <p>Learners will be able to engage in conversations about food systems and agriculture in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They will be able to share examples of how food is grown, harvested, and distributed, as well as how they can</p>	<p>Examples:</p> <p>Number and Place Value: Learners will count and compare the number of fruits and vegetables grown in a community garden, reinforcing place value concepts.</p> <p>Addition and Subtraction:</p> <p>Learners will calculate the total amount of money saved by growing their own food at home and subtract any expenses, such as seeds or gardening supplies.</p>	<p>and social impacts of different food choices, and explore ways to promote sustainable and equitable food systems.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in investigations to explore the journey of food from farm to table, discussing the role of farmers, distributors, and consumers in the food system.</p>	<p>of food systems and apply simple strategies to support sustainability in their food consumption habits.</p> <p>Applied Examples:</p> <p>Exploring Food Sources:</p> <p>Learners will engage in storytelling activities and discussions to learn about different sources of food, such as farms, gardens, and markets.</p> <p>They will explore examples of how food is grown,</p>	<p>food systems within the circular economy, with a focus on UK contributions</p> <p>Applied Examples:</p> <p>Exploring Food Systems and Sustainability:</p> <p>Learners will engage in discussions to understand the concept of food systems and the importance of sustainable practices in food production. They will learn about eco engineers and inventors who</p>	<p>concepts.</p> <p><i>Collage:</i> Learners will make collages using images of various foods, farms, and people involved in the food system. They may cut out pictures from magazines or printouts and arrange them to show the interconnectedness of different elements in the food cycle.</p> <p>Music:</p> <p><i>Singing:</i> Learners will sing songs about healthy eating, farming, and the importance of</p>	<p>impact.</p> <p>Healthy Eating Habits:</p> <p>Through interactive lessons and cooking demonstrations, learners will explore the importance of nutritious food choices for their health and well-being. They will understand how consuming locally sourced and seasonal foods supports both their health and the local economy.</p> <p>Food Waste Reduction:</p>
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<p>make environmentally conscious food choices, such as buying locally grown produce or reducing food waste, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of food systems and agriculture.</p>	<p>Multiplication and Division:</p> <p>Learners will use multiplication and division to solve word problems involving quantities of food produced or consumed, such as calculating the total number of apples harvested from a tree or dividing a batch of cookies evenly among friends.</p> <p>Fractions:</p> <p>Learners will apply fractions to represent the proportion of food waste composted compared to the total amount of food waste generated.</p>	<p>They will conduct experiments to explore different methods of food preservation, such as canning or freezing, and discuss their impact on food waste and resource conservation.</p> <p>Plants:</p> <p>Learners will learn about the importance of sustainable agriculture practices for preserving soil health and biodiversity, discussing the benefits of organic farming</p>	<p>harvested, and transported to their homes, discussing the environmental impact of various food production methods.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in coding activities or use educational apps to learn about the environmental impact of food choices.</p> <p>They will explore simple algorithms for</p>	<p>have contributed to sustainable agriculture and food production in the UK.</p> <p>Learning About Specific Eco Engineers and Inventors from the UK</p> <p>Learners will be introduced to specific eco engineers and inventors from the UK who have made significant contributions to sustainable food systems</p> <p>They may</p>	<p>reducing food waste. They may learn songs that celebrate the diversity of foods, promote sustainable farming practices, or encourage mindful eating habits.</p> <p><i>Playing Instruments:</i></p> <p>Learners will play simple instruments to accompany songs about food systems. They may use percussion instruments like tambourines or shakers to create rhythms that represent the sounds of farming or cooking.</p>	<p>Learners will participate in activities to reduce food waste at home or in school. They will learn about composting, food preservation techniques, and the importance of mindful consumption to minimize waste and conserve resources.</p> <p>Community Gardens:</p> <p>Learners will engage in community gardening projects, where they can grow their own fruits and vegetables. They will understand the</p>
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	<p>Measurement:</p> <p>Learners will measure the dimensions of a raised bed garden and calculate the area or perimeter, reinforcing measurement concepts.</p> <p>Geometry:</p> <p>Learners will identify shapes and their properties in fruits and vegetables, such as the symmetry of an apple or the geometric patterns of a watermelon.</p> <p>Statistics:</p>	<p>and crop rotation.</p> <p>They will explore the concept of community gardens and urban agriculture initiatives, discussing their role in promoting food security and community resilience.</p> <p>Animals, including humans:</p> <p>Learners will investigate the environmental impact of different diets, discussing the carbon footprint of meat production and the benefits of plant-based diets</p>	<p>making sustainable food choices, such as choosing locally grown fruits and vegetables or reducing food waste by planning meals.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices or software tools to explore online resources about sustainable food production and consumption.</p> <p>They will learn basic internet safety rules related to online</p>	<p>learn about individuals such as Sir Albert Howard, known for his work in organic farming,</p> <p>Changes within Living Memory:</p> <p>Learners will reflect on changes they have observed in food production and consumption within their own lives or communities in the UK.</p> <p>They will discuss how technological advancements</p>	<p>Physical Education (PE):</p> <p><i>Games:</i> Learners will participate in games that simulate different aspects of the food system, such as planting seeds, harvesting crops, or delivering produce to markets. They may play games that encourage teamwork and cooperation to complete food-related tasks.</p> <p><i>Dance:</i> Learners will learn dances inspired by movements found in nature or farming activities. They may dance like animals in the</p>	<p>benefits of urban gardening for promoting sustainable food production, community engagement, and biodiversity.</p> <p>Exploring Food Packaging:</p> <p>Through hands-on activities, learners will explore different types of food packaging and their environmental impact. They will discuss alternatives to single-use plastics and ways to reduce packaging waste in their daily lives.</p> <p>Learning About</p>
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	<p>Learners will collect data on food preferences in their classroom or community and represent it using bar graphs or pie charts, analysing trends and proposing improvements.</p> <p>Picture Books:</p> <p>"Compost Stew: An A to Z Recipe for the Earth" by Mary McKenna Siddals - Introduces children to the concept of composting and the importance of recycling food waste.</p> <p>"Our Community Garden" by Barbara Pollak - Follows a group</p>	<p>for reducing greenhouse gas emissions.</p> <p>They will learn about the concept of food waste and discuss ways to minimise waste by using leftovers creatively or composting food scraps.</p> <p>Everyday Materials:</p> <p>Learners will analyse the lifecycle of food packaging materials, such as plastic containers or cardboard boxes, and discuss strategies for reducing</p>	<p>research, such as identifying credible sources of information about food systems.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing menus or creating food-themed artwork, to showcase their understanding of sustainable food systems.</p> <p>They will participate in hands-on making</p>	<p>and changing dietary habits have influenced food systems.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to food production and agriculture, such as the Green Revolution or the introduction of crop rotation.</p> <p>They will learn about the impact of these</p>	<p>wild, imitate the motions of planting and harvesting, or express gratitude for the food they eat through movement.</p>	<p>Fair Trade:</p> <p>Learners will learn about fair trade practices and how they support farmers and producers in developing countries. They will understand the importance of fair wages, ethical working conditions, and sustainable farming practices in global food systems.</p> <p>Role of Government Policies:</p> <p>Through discussions and role-playing activities, learners will explore the role</p>
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	<p>of children as they plant, tend, and harvest vegetables in their community garden, teaching the importance of teamwork and community involvement.</p> <p>"Gregory the Terrible Eater" by Mitchell Sharmat - Explores the importance of a balanced diet and healthy eating habits through the story of a goat who prefers fruits and vegetables over junk food.</p>	<p>packaging waste through reusable containers or bulk shopping.</p> <p>They will explore the concept of food miles and discuss ways to reduce carbon emissions associated with transportation by buying locally produced foods.</p> <p>Seasonal Changes:</p> <p>Learners will explore the concept of seasonal eating and discuss the environmental benefits of consuming locally grown, seasonal</p>	<p>activities, such as cooking or gardening, to experience firsthand the process of growing and preparing food in a sustainable way.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the environmental impact of different foods and food production methods, considering factors such as energy use, water consumption, and pesticide</p>	<p>events on global food systems and sustainability practices.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will learn about significant historical figures from the UK who have played key roles in shaping food systems.</p> <p>They may learn about figures such as Jethro Tull, inventor of the seed drill, or</p>		<p>of government policies in regulating food production and distribution. They will learn about food safety standards, labeling requirements, and efforts to promote sustainable agriculture.</p> <p>Food Sharing Initiatives:</p> <p>Learners will participate in food sharing initiatives such as community food banks or sharing surplus food with those in need. They will understand the importance of addressing food insecurity and promoting equitable</p>
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		<p>foods.</p> <p>They will learn about the importance of preserving traditional food cultures and discuss ways to support local farmers and producers through farmers' markets or community-supported agriculture (CSA) programs.</p> <p>Living Things and their Habitats:</p> <p>Learners will investigate the impact of agriculture on wildlife habitats and ecosystems,</p>	<p>use.</p> <p>They will learn basic technical knowledge about sustainable agriculture practices, such as organic farming and permaculture techniques.</p>	<p>John Loudon McAdam, pioneer of modern road construction which facilitated food transportation.</p> <p>Historical Interpretation:</p> <p>Learners will engage in activities to interpret historical photographs or artefacts related to food production and distribution.</p> <p>They will discuss the evolution of food systems over time and</p>		<p>access to nutritious food for all members of society.</p>
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		<p>discussing the importance of protecting biodiversity and natural resources.</p> <p>They will explore the concept of regenerative agriculture and discuss its potential for restoring degraded landscapes and promoting soil health.</p> <p>Light and Sound:</p> <p>Learners will analyse the environmental impact of food processing and distribution,</p>		<p>consider the implications for sustainable practices.</p>		
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		<p>discussing the energy consumption and waste generation associated with industrial food systems.</p> <p>They will learn about alternative food distribution models, such as farmers' cooperatives or community food hubs, and discuss their potential for promoting food sovereignty and reducing environmental impact.</p> <p>Picture Books:</p> <p>"The Water Princess" by Susan Verde -</p>				
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		<p>Follows the journey of a young girl who dreams of bringing clean water to her village in Africa, highlighting the global issue of water scarcity and the importance of environmental conservation.</p> <p>"Compost Stew: An A to Z Recipe for the Earth" by Mary McKenna Siddals - Introduces children to the concept of composting and the importance of recycling organic waste to create nutrient-rich soil for gardening.</p> <p>"We Planted a Tree" by Diane</p>				
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		Muldrow - Celebrates the beauty and benefits of trees for the environment and communities, inspiring children to take action to protect and preserve nature.				
Circular Technologies and Innovation (CIRC12)						
English	Mathematics	Science and Geography	Computing/ Design and Technology	History	Art and Design/Music	Personal, Social, Health and Economic Education (PSHE) Citizenship
Reading: Learners will be able to read and comprehend	Learners will develop an understanding of	Learners will develop an understanding of	t.Learners will develop	Learners will explore circular technologies and	Learners will explore circular technologies and innovations within	Learners will explore circular technologies and innovations within

<p>selected picture books on circular technologies and innovation in the circular economy, such as</p> <p>"Rosie Revere, Engineer" by Andrea Beaty or "The Boy Who Invented TV: The Story of Philo Farnsworth" by Kathleen Krull, identifying key age-appropriate vocabulary related to circular technologies, innovation, and the circular economy, such as "invention," "innovation," "technology," "recycle," and "renewable."</p> <p>Writing: Objective: By the end of the unit, students will be able to write short sentences or brief paragraphs using</p>	<p>circular technologies and ecosystems in the circular economy while applying mathematical concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will engage in specific applied examples, explore picture books related to circular technologies and ecosystems, and incorporate age-appropriate vocabulary related to the circular economy and the 10 Rs (Reduce, Reuse,</p>	<p>circular technologies and innovations within the circular economy, integrating concepts from science and geography. They will explore topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through inquiry-based learning, hands-on activities, and age-appropriate resources, they will investigate innovative</p>	<p>foundational understanding of circular technologies and innovations within the context of the circular economy, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities, learners will explore how technology can be used to reduce waste, conserve resources, and</p>	<p>innovations, focusing on specific eco engineers and inventors. They will investigate changes within living memory, events beyond living memory, significant historical figures, and historical interpretation related to technological advancements in the circular economy. Through age-appropriate activities, learners will develop an understanding of how eco engineers and inventors have contributed to sustainable technologies and</p>	<p>the circular economy, understanding how new ideas and inventions are used to reduce waste, conserve resources, and promote sustainability.</p> <p>Applied Examples:</p> <p>Art and Design:</p> <p><i>Drawing:</i> Learners will create drawings of innovative technologies designed to recycle materials, generate renewable energy, or reduce environmental impact. They may draw wind turbines, solar</p>	<p>the circular economy, focusing on personal, social, health, and economic education (PSHE). They will develop an understanding of how technological advancements contribute to sustainability, resource conservation, and community well-being.</p> <p>Applied Examples:</p> <p>Recycling Sorting Games:</p> <p>Learners will engage in interactive games or simulations that teach them about the importance of sorting recyclable</p>
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<p>vocabulary related to circular technologies and innovation, demonstrating understanding by describing simple examples of circular technologies or innovative solutions to environmental challenges, such as "I can design a toy made from recycled materials" or "I can create a poster about renewable energy."</p> <p>Speaking and Listening:</p> <p>Learners will be able to engage in conversations about circular technologies and innovation in the circular economy, actively using vocabulary learned from picture books and classroom discussions. They</p>	<p>Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value: Learners will count and compare the number of renewable energy sources (such as solar panels or wind turbines) in their community, reinforcing place value concepts.</p> <p>Addition and Subtraction: Learners will calculate the total energy generated by renewable sources and</p>	<p>solutions for waste reduction, resource recovery, and sustainable production practices, analyse the environmental and social benefits of circular technologies, and explore ways to promote technological innovation for a more sustainable future.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will engage in hands-on activities to</p>	<p>promote sustainability. By the end of the learning experience, learners will be able to demonstrate basic knowledge of circular technologies and apply simple strategies to contribute to a more circular economy.</p> <p>Applied Examples:</p> <p>Exploring Circular Technologies:</p> <p>Learners will engage in storytelling activities and discussions to</p>	<p>innovations. By the end of the learning experience, learners will demonstrate introductory knowledge of circular technologies and innovations, with a focus on UK</p> <p>Applied Examples:</p> <p>Exploring Circular Technologies and Innovations:</p> <p>Learners will engage in discussions to understand the concept of circular</p>	<p>panels, recycling machines, or eco-friendly vehicles.</p> <p><i>Sculpture:</i> Learners will use recycled materials to sculpt models of innovative inventions, such as robots made from cardboard boxes or sculptures depicting renewable energy sources like windmills or hydroelectric dams.</p> <p>Music:</p> <p><i>Listening and Appraising:</i> Learners will listen to music inspired</p>	<p>materials. They will learn how innovative technologies, such as automated sorting machines, help efficiently separate different types of materials for recycling.</p> <p>Energy-Efficient Devices:</p> <p>Through hands-on activities, learners will explore energy-efficient devices and appliances in their homes or classrooms. They will understand how these technologies help reduce energy consumption, lower carbon emissions, and promote environmental</p>
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<p>will be able to share examples of how technology can be used to solve environmental problems or promote sustainability, such as using solar panels to generate electricity or developing biodegradable packaging, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of technologies and innovation.</p>	<p>subtract the amount of energy saved by using energy-efficient appliances to find the net energy gain.</p> <p>Multiplication and Division: Learners will use multiplication and division to solve word problems involving quantities of recycled materials used in new products or the number of plants and animals supported by a restored ecosystem.</p> <p>Fractions: Learners will apply fractions to represent the proportion of waste diverted</p>	<p>explore the principles of recycling and upcycling, using recycled materials to create new products or artworks.</p> <p>They will conduct experiments to investigate the properties of materials and explore ways to design products that are durable, repairable, and recyclable.</p> <p>Plants:</p> <p>Learners will learn about innovative agricultural practices, such</p>	<p>learn about different technologies that support the circular economy, such as recycling machines or energy-efficient appliances.</p> <p>They will explore examples of how these technologies work and discuss their role in reducing waste and conserving resources.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will</p>	<p>technologies and their role in promoting sustainability.</p> <p>They will learn about eco engineers and inventors who have developed innovative solutions to address environmental challenges in the UK.</p> <p>Learning About Specific Eco Engineers and Inventors</p> <p>Learners will be introduced to specific eco engineers and</p>	<p>by themes of innovation, technology, and sustainability. They may listen to songs that celebrate environmental activism, encourage creative problem-solving, or promote awareness of renewable energy sources.</p> <p>Physical Education (PE):</p> <p><i>Games:</i> Learners will engage in games that simulate the use of circular technologies to solve environmental challenges. They</p>	<p>sustainability.</p> <p>Water Conservation Technologies:</p> <p>Learners will learn about water-saving technologies such as low-flow faucets, rainwater harvesting systems, and water-efficient irrigation methods. They will discuss the importance of conserving water resources and protecting freshwater ecosystems.</p> <p>Renewable Energy Sources:</p> <p>Learners will</p>
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	<p>from landfills through recycling or composting compared to the total amount of waste generated.</p> <p>Measurement: Learners will measure the dimensions of a recycling bin or compost container and calculate the volume or weight of the materials collected, reinforcing measurement concepts.</p> <p>Geometry: Learners will identify shapes and their properties in natural ecosystems, such as the</p>	<p>as vertical farming or hydroponics, and discuss their potential for increasing food production while minimising resource use.</p> <p>They will explore the concept of agroforestry and discuss its benefits for soil conservation, biodiversity, and carbon sequestration.</p> <p>Animals, including humans: Learners will investigate the concept of biomimicry and</p>	<p>participate in coding activities or use educational apps to learn about how technology can be programmed to support sustainability.</p> <p>They will explore simple algorithms for optimising resource use, such as scheduling energy usage or managing waste disposal.</p> <p>Information Technology and Digital Literacy: Learners will use</p>	<p>inventors from the UK who have made significant contributions to circular technologies.</p> <p>They may learn about individuals such as Sir James Dyson, inventor of cyclonic vacuum technology, or</p> <p>Changes within Living Memory: Learners will reflect on changes they have observed in technology within their</p>	<p>may play games where they pretend to be solar panel installers, wind turbine engineers, or waste management workers sorting recyclables.</p>	<p>explore renewable energy sources such as solar panels, wind turbines, and hydroelectric power systems. They will understand how these technologies harness natural resources like sunlight, wind, and water to generate clean and sustainable energy.</p> <p>E-Waste Recycling: Learners will learn about electronic waste (e-waste) and the importance of responsible disposal and recycling of electronic devices. They will explore innovative recycling</p>
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	<p>symmetry of flower petals or the geometric patterns of animal tracks.</p> <p>Statistics: Learners will collect data on the biodiversity of different ecosystems and represent it using bar graphs or line plots, analysing trends and proposing conservation strategies.</p> <p>Picture Books:</p> <p>"The Great Kapok Tree: A Tale of the Amazon Rainforest" by Lynne Cherry - Raises awareness about the importance of</p>	<p>explore how nature-inspired designs can lead to more sustainable products and technologies.</p> <p>They will learn about the role of biodegradable materials in reducing waste and discuss ways to incorporate biodegradable materials into everyday products.</p> <p>Everyday Materials:</p> <p>Learners will analyse the lifecycle of common household items,</p>	<p>digital devices or software tools to explore online resources about circular technologies and innovations.</p> <p>They will learn basic internet safety rules related to online research, such as identifying reliable sources of information about technology and sustainability.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing</p>	<p>own lives or communities in the UK.</p> <p>They will discuss how advancements in technology have influenced sustainability practices and circular economy initiatives.</p> <p>Events Beyond Living Memory:</p> <p>Learners will explore historical events related to technological innovations,</p>		<p>technologies that extract valuable materials from electronic waste for reuse in new products.</p> <p>Community Innovation Projects:</p> <p>Learners will participate in innovation projects that address local environmental challenges. They may design and build simple prototypes or models using recycled materials to solve real-world problems in their community.</p> <p>Nature-inspired</p>
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	<p>rainforests and the interconnectedness of ecosystems.</p> <p>"The Boy Who Harnessed the Wind" by William Kamkwamba and Bryan Mealer - Tells the true story of a young boy in Malawi who builds a windmill from recycled materials to bring electricity to his village.</p> <p>"One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia" by Miranda Paul - Illustrates the power of recycling and community</p>	<p>such as electronics or clothing, and discuss innovative approaches to recycling and resource recovery.</p> <p>They will explore the concept of the circular economy and discuss how closed-loop systems can minimise waste and maximise resource efficiency.</p> <p>Seasonal Changes:</p> <p>Learners will learn about renewable energy technologies,</p>	<p>blueprints or creating models, to imagine and develop their own circular technologies.</p> <p>They will participate in hands-on making activities, such as building prototypes or crafting materials, to showcase their innovative ideas for promoting sustainability.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the effectiveness of</p>	<p>such as the invention of the steam engine or the development of renewable energy sources.</p> <p>They will learn about the impact of these events on the evolution of circular technologies and their role in sustainability. Significant Historical Figures and Events:</p> <p>Learners will learn about significant historical figures from</p>		<p>Design:</p> <p>Learners will explore biomimicry and how nature-inspired design principles can lead to more sustainable solutions. They will study examples of innovations inspired by nature, such as energy-efficient buildings modeled after termite mounds or self-cleaning surfaces inspired by lotus leaves.</p> <p>Digital Tools for Sustainability Education:</p> <p>Learners will use digital tools and educational apps to</p>
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	<p>involvement in cleaning up plastic waste.</p>	<p>such as solar panels or wind turbines, and discuss their role in reducing greenhouse gas emissions and promoting energy independence.</p> <p>They will investigate innovative energy storage solutions, such as battery technologies or hydrogen fuel cells, and discuss their potential for storing renewable energy for future use.</p> <p>Living Things and their Habitats:</p> <p>Learners will</p>	<p>different circular technologies and innovations in reducing waste and conserving resources.</p> <p>They will learn basic technical knowledge about how technology can be used to address environmental challenges, such as renewable energy systems and waste recycling processes.</p>	<p>the UK who have contributed to technological advancements.</p> <p>They may learn about figures such as Ada Lovelace, considered the world's first computer programmer, or George Stephenson, pioneer of steam locomotion.</p> <p>Historical Interpretation:</p> <p>Learners will engage in activities to interpret historical</p>		<p>explore sustainability concepts and engage in virtual simulations or experiments related to circular economy principles. They will learn how technology can be used to raise awareness and promote behavior change towards more sustainable practices.</p>
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		<p>explore the concept of ecosystem services and discuss how nature-based solutions, such as green infrastructure or wetland restoration, can address environmental challenges.</p> <p>They will learn about innovative approaches to water management, such as rainwater harvesting or greywater recycling, and discuss their benefits for water conservation and ecosystem</p>	.	<p>artefacts or documents related to technological innovations.</p> <p>They will discuss the evolution of technology over time and its implications for sustainability and the circular economy.</p>		
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		<p>health.</p> <p>Light and Sound:</p> <p>Learners will investigate sustainable transportation technologies, such as electric vehicles or public transit systems, and discuss their role in reducing air pollution and traffic congestion.</p> <p>They will explore the concept of smart cities and discuss how technology can be used to improve resource efficiency, reduce waste, and enhance quality</p>				
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of life for urban residents.

Picture Books:

"The Three R's: Reuse, Reduce, Recycle" by Nuria Roca - Introduces children to the concept of the three Rs and explores ways to reduce waste and promote recycling in everyday life.

"What a Waste: Trash, Recycling, and Protecting our Planet" by Jess French - Explores the global problem of waste and highlights innovative solutions for reducing, reusing, and recycling

		<p>materials.</p> <p>"The Boy Who Harnessed the Wind" by William Kamkwamba - Tells the true story of a young boy who builds a windmill to bring electricity to his village in Malawi, inspiring children to use technology to solve real-world problems.</p>				
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Outdoor Learning (CIRC13)						
Reading: Learners	Learners will	Learners will	Learners will develop	Learners will engage in	Learners will engage in outdoor	Learners will engage in outdoor

<p>will be able to read and comprehend selected picture books on outdoor learning in the circular economy, such as</p> <p>"The Water Princess" by Susan Verde</p> <p>"The Great Kapok Tree" by Lynne Cherry, identifying key age-appropriate vocabulary related to outdoor learning, nature, and the circular economy, such as "ecosystem," "biodiversity," "sustainability," "environment," and "cycle."</p> <p>Writing: Learners will be able to write short sentences or brief paragraphs describing their</p>	<p>develop mathematical skills while engaging in outdoor learning activities focused on the circular economy. They will apply concepts of number and place value, addition and subtraction, multiplication and division, fractions, measurement, geometry, and statistics. They will explore outdoor environments, participate in hands-on activities, and utilise age-appropriate picture books and vocabulary related to the circular economy and the 10 Rs</p>	<p>engage in outdoor learning activities to explore the principles of the circular economy, integrating concepts from science and geography. They will investigate topics related to working scientifically, plants, animals (including humans), everyday materials, seasonal changes, living things and their habitats, light and sound, as well as locational and place knowledge. Through hands-on exploration, observation, and age-appropriate resources, they will develop an</p>	<p>foundational understanding of outdoor learning within the context of the circular economy, integrating age-appropriate concepts from computer science, information technology, digital literacy, designing, making, evaluating, and technical knowledge. Through interactive and hands-on activities conducted outdoors, learners will explore nature, biodiversity, and sustainable practices. By the end of the learning</p>	<p>outdoor learning activities related to the Circular Economy, focusing on specific eco engineers and inventors. They will explore changes within living memory, events beyond living memory, significant historical figures, and historical interpretation related to outdoor practices in sustainability. Through age-appropriate exploration, learners will develop an appreciation for the natural world and its connection to circular economy</p>	<p>learning activities to explore concepts of the circular economy, understanding how nature and the environment play a vital role in sustainability and resource conservation.</p> <p>Applied Examples:</p> <p>Art and Design/Music:</p> <p><i>Drawing:</i> Learners will sketch outdoor scenes depicting natural cycles and processes, such as the water cycle, plant growth, or animal habitats. They may illustrate how these natural</p>	<p>learning experiences that promote understanding of circular economy principles and foster personal, social, health, and economic education (PSHE) skills, citizenship, and appreciation for nature.</p> <p>Applied Examples:</p> <p>Nature Walks and Observations:</p> <p>Learners will explore outdoor environments such as parks, gardens, or nature trails to observe natural processes and ecosystems. They will identify examples of</p>
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<p>outdoor learning experiences and observations, demonstrating understanding by using vocabulary related to the circular economy, such as "I observed different plants and animals in the ecosystem" or "I noticed how litter affects the environment."</p> <p>Speaking and Listening: Learners will be able to engage in conversations about outdoor learning in the circular economy, actively using vocabulary learned from picture books and outdoor experiences. They will be able to share examples of how they can contribute to environmental</p>	<p>(Reduce, Reuse, Recycle, Repair, Repurpose, Refuse, Rethink, Regift, Recover, Rot).</p> <p>Applied Examples:</p> <p>Number and Place Value: Learners will count and compare the number of natural resources (such as fallen leaves or rocks) collected in outdoor scavenger hunts, reinforcing place value concepts.</p> <p>Addition and Subtraction: Learners will calculate the total amount of recyclable</p>	<p>understanding of sustainable practices, analyse natural systems, and discover ways to apply circular economy principles in their local environment.</p> <p>Applied Examples:</p> <p>Working Scientifically:</p> <p>Learners will conduct outdoor experiments to observe natural processes, such as decomposition or erosion, and discuss how these processes contribute to the cycling of materials in</p>	<p>experience, learners will be able to demonstrate basic knowledge of outdoor ecosystems and apply simple strategies to contribute to a more sustainable and circular economy.</p> <p>Applied Examples:</p> <p>Exploring Outdoor Environments:</p> <p>Learners will engage in outdoor exploration activities to observe and learn about local ecosystems,</p>	<p>principles.</p> <p>Applied Examples:</p> <p>Exploring Outdoor Practices in Circular Economy:</p> <p>Learners will participate in outdoor activities that demonstrate circular economy concepts, such as composting, gardening, or nature walks.</p> <p>They will learn about the importance of reducing waste and conserving resources in</p>	<p>systems contribute to a circular economy by recycling nutrients and supporting biodiversity.</p> <p><i>Music:</i> Learners will listen to sounds of nature, such as bird songs, rustling leaves, or flowing water, and create music compositions inspired by these natural rhythms. They may use musical instruments or their voices to mimic the sounds of the environment.</p> <p>Physical</p>	<p>circularity in nature, such as nutrient cycling, decomposition, and symbiotic relationships between plants and animals.</p> <p>Composting Activities:</p> <p>Learners will participate in composting activities to learn about organic waste management and soil regeneration. They will collect food scraps, leaves, and other organic materials to create compost piles or bins, observing how organic matter decomposes and</p>
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<p>conservation and sustainability through outdoor activities, such as planting trees, picking up litter, or observing wildlife, as well as listen to their peers and respond with relevant contributions, showing comprehension and application of circular economy concepts in the context of outdoor learning.</p>	<p>materials collected during outdoor clean-up activities and subtract any non-recyclable items to determine the effectiveness of waste reduction efforts.</p> <p>Multiplication and Division: Learners will use multiplication and division to distribute seeds or plants evenly in outdoor gardens or plots, or calculate the total yield of fruits or vegetables harvested from outdoor crops.</p> <p>Fractions: Learners will explore fractions by dividing outdoor spaces</p>	<p>ecosystems.</p> <p>They will engage in hands-on activities to collect data on local biodiversity, such as conducting a bug hunt or bird watching, and analyse patterns in species distribution.</p> <p>Plants:</p> <p>Learners will explore outdoor gardens or green spaces to observe plant growth and discuss the importance of biodiversity for ecosystem</p>	<p>including plants, animals, and natural resources.</p> <p>They will explore examples of how outdoor environments support biodiversity and provide resources essential for human well-being.</p> <p>Computer Science and Computational Thinking:</p> <p>Learners will participate in nature-based coding activities or use educational</p>	<p>outdoor settings.</p> <p>Learning About Specific Eco Engineers and Inventors from the UK</p> <p>Learners will be introduced to eco engineers and inventors from the UK who have contributed to sustainable outdoor practices.</p> <p>They may learn about individuals such as Isambard Kingdom Brunel, known for his innovative</p>	<p>Education (PE):</p> <p><i>Games:</i> Learners will participate in outdoor games that promote physical activity while teaching principles of sustainability. They may engage in scavenger hunts to collect litter for recycling, play games that simulate natural processes like photosynthesis or decomposition, or take part in eco-friendly relay races.</p> <p>Dance:</p> <p><i>Dance:</i> Learners will express themselves</p>	<p>transforms into nutrient-rich soil.</p> <p>Garden Planting and Harvesting:</p> <p>Learners will engage in hands-on gardening activities to cultivate fruits, vegetables, or herbs in school or community gardens. They will learn about sustainable gardening practices, including soil health, water conservation, and biodiversity, while experiencing the circularity of food production and</p>
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	<p>into equal parts for planting or sharing resources among classmates, such as dividing a pizza into equal slices for a picnic.</p> <p>Measurement: Learners will measure the dimensions of outdoor objects or features using non-standard units like sticks or hand spans, or use standard units like metres or centimetres to measure distances between landmarks.</p> <p>Geometry: Learners will identify shapes</p>	<p>resilience.</p> <p>They will participate in planting activities, such as sowing seeds or transplanting seedlings, and discuss the role of plants in providing food, oxygen, and habitat for other living organisms.</p> <p>Animals, including humans:</p> <p>Learners will observe local wildlife habitats, such as ponds or woodlands, and discuss the interdependence of plants and</p>	<p>apps to learn about the connections between technology and the environment.</p> <p>They will explore simple algorithms for understanding natural processes, such as the life cycle of plants or the water cycle.</p> <p>Information Technology and Digital Literacy:</p> <p>Learners will use digital devices (e.g., cameras/ Ipads) to document their outdoor</p>	<p>engineering projects like the Great Western Railway, or Sir Joseph Bazalgette, who designed London's sewer system.</p> <p>Changes within Living Memory:</p> <p>Learners will observe and discuss changes they have noticed in outdoor environments within their own lives or communities in the UK.</p> <p>They will explore how</p>	<p>through movement inspired by nature and the outdoors. They may choreograph dances that imitate animal movements, symbolise the changing seasons, or represent the flow of water in a river.</p>	<p>consumption.</p> <p>Recycling Scavenger Hunts:</p> <p>Learners will participate in recycling scavenger hunts to identify recyclable materials in outdoor environments. They will collect items such as plastic bottles, aluminium cans, or paper products and sort them into designated recycling bins, promoting awareness of waste reduction and recycling practices.</p>
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	<p>and their properties in outdoor structures or natural features, such as the symmetry of tree branches or the angles of sunlight hitting the ground.</p> <p>Statistics: Learners will collect data on outdoor observations, such as the number of bird species spotted or the types of plants growing in different habitats, and represent it using pictographs or tally charts, analysing patterns and making predictions.</p>	<p>animals in ecosystems.</p> <p>They will investigate ways to minimise human impact on wildlife habitats, such as avoiding littering or creating wildlife-friendly gardens, and discuss the importance of conservation efforts.</p> <p>Everyday Materials:</p> <p>Learners will collect and sort outdoor materials, such as leaves, sticks, or rocks, to explore</p>	<p>experiences and discoveries.</p> <p>They will learn basic digital literacy skills related to using technology outdoors safely and responsibly, such as protecting electronic devices from environmental hazards.</p> <p>Designing and Making:</p> <p>Learners will engage in creative activities, such as designing nature journals or creating outdoor art</p>	<p>human actions can impact the natural world and discuss ways to mitigate negative effects through sustainable practices.</p> <p>Events Beyond Living Memory:</p> <p>Learners will learn about historical events that have influenced outdoor practices and environmental conservation efforts.</p> <p>They may explore events such as the</p>		<p>Outdoor Art Projects:</p> <p>Learners will create art projects using natural materials found in outdoor settings, such as leaves, twigs, rocks, and flowers. They will explore concepts of upcycling and creativity while turning found objects into works of art, emphasising the importance of resourcefulness and environmental stewardship.</p> <p>Water Conservation Activities:</p> <p>Learners will engage in water</p>
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	<p>Picture Books:</p> <p>"The Curious Garden" by Peter Brown - Inspires curiosity about nature and the environment, showing how one person's actions can transform a neglected space into a vibrant garden.</p> <p>"Compost Stew: An A to Z Recipe for the Earth" by Mary McKenna Siddals - Introduces the concept of composting and the importance of recycling organic waste to enrich soil and support plant growth.</p> <p>"Recycle Every Day!" by Nancy</p>	<p>opportunities for reuse and recycling.</p> <p>They will participate in outdoor art activities, such as creating nature collages or sculptures, using found materials and discussing the importance of reducing waste and promoting creativity.</p> <p>Seasonal Changes:</p> <p>Learners will observe seasonal changes in their local environment, such as changes in weather, plant</p>	<p>installations, to express their understanding of outdoor environments.</p> <p>They will participate in hands-on making activities, such as building bird feeders or planting seeds, to contribute positively to outdoor ecosystems.</p> <p>Evaluating and Technical Knowledge:</p> <p>Learners will evaluate the impact of human activities on outdoor</p>	<p>creation of national parks or the establishment of environmental protection laws.</p> <p>Significant Historical Figures and Events:</p> <p>Learners will discover significant historical figures who advocated for environmental conservation and outdoor stewardship.</p> <p>They may learn about figures such as Beatrix Potter, renowned for</p>		<p>conservation activities, such as building rainwater collection systems or constructing mini wetlands to filter and clean water. They will learn about the water cycle, watersheds, and the importance of preserving freshwater resources for ecosystems and human communities.</p> <p>Outdoor Play and Physical Activity:</p> <p>Learners will participate in outdoor play and physical activities that promote health and wellbeing while</p>
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	<p>Elizabeth Wallace - Teaches children about the importance of recycling everyday items and demonstrates creative ways to reuse materials in arts and crafts projects.</p>	<p>growth, or animal behaviour, and discuss the cyclical nature of natural systems.</p> <p>They will explore ways to celebrate seasonal traditions in an environmentally friendly manner, such as making natural decorations or planting seasonal crops.</p> <p>Living Things and their Habitats:</p> <p>Learners will explore different outdoor habitats, such as forests, wetlands, or meadows, and</p>	<p>environments and identify ways to minimise negative effects and promote sustainability.</p> <p>They will learn basic technical knowledge about outdoor ecosystems and sustainable practices, such as composting and water conservation.</p>	<p>her conservation efforts and love of nature, or Sir David Attenborough's brother, Richard Attenborough, who was involved in nature conservation initiatives.</p> <p>Historical Interpretation:</p> <p>Learners will engage in activities to interpret historical artefacts or documents related to outdoor practices and</p>		<p>connecting with nature. They may engage in games, sports, or nature-based exercises that encourage movement, social interaction, and appreciation for outdoor environments.</p> <p>Citizenship and Environmental Stewardship:</p> <p>Learners will discuss their roles as responsible citizens and environmental stewards in caring for the natural world. They will reflect on their connections to the environment and explore ways to</p>
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		<p>discuss the diversity of plant and animal life in each habitat.</p> <p>They will investigate ways to support local biodiversity, such as creating habitat structures or planting native species, and discuss the importance of preserving natural habitats.</p> <p>Light and Sound:</p> <p>Learners will observe changes in light and sound levels in outdoor environments throughout the day and discuss</p>		<p>sustainability.</p> <p>They will discuss the evolution of attitudes towards nature and outdoor conservation efforts over time.</p>		<p>take action to protect and preserve natural resources for future generations.</p>
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how these changes affect plant and animal behaviour.

They will explore ways to reduce light and noise pollution in their local area, such as turning off outdoor lights or planting sound-absorbing vegetation.

Picture Books:

"The Great Kapok Tree" by Lynne Cherry - Explores the interconnectedness of rainforest ecosystems and highlights the importance of conservation and

		<p>stewardship.</p> <p>"We're Going on a Nature Hunt" by Steve Metzger - Takes children on an outdoor adventure to explore the sights and sounds of nature, promoting curiosity and observation skills.</p> <p>"The Curious Garden" by Peter Brown - Tells the story of a boy who transforms a grey city into a green oasis by caring for a neglected garden, inspiring children to connect with nature and take action to protect the environment.</p>				
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