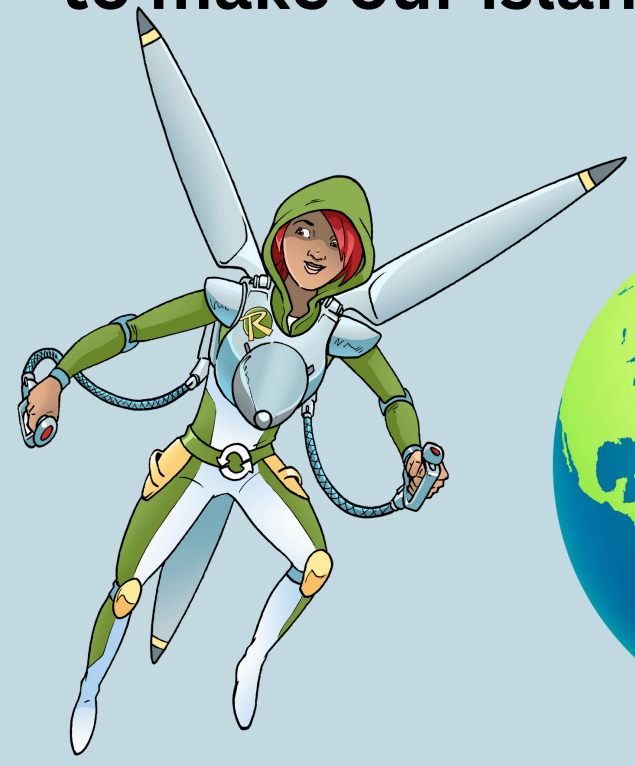
🌍 Join ARay and Turbie
Learning Plan: Renewable Energy –

Our Island Home

Curriculum for Excellence Level One (Scotland)
Stage: Primary 2–4 (Ages approx. 5–8)
Duration: 3–4 weeks (flexible)
Interdisciplinary: Sciences, Technologies, Social Studies, Literacy, Expressive Arts, Health & Wellbeing

🧠 Big Question

How can we use the natural power around us to make our island home more sustainable?



🎯 Learning Objectives (aligned with CfE Level 1 Experiences and Outcomes)

Curriculum Area Experiences & Outcomes Objectives

Sciences (Planet Earth) SCN 1-04a Explore and describe renewable sources (wind, solar, water) and their impact on our island.

Technologies TCH 1-02a / TCH 1-04b Investigate how energy is produced, and create simple models of renewable energy systems.

Social Studies SOC 1-07a Explore how island life shapes the way we use resources, including energy.

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Literacy LIT 1-02a / LIT 1-04a Listen and talk about island life and energy use, developing our own ideas and questions.

Expressive Arts EXA 1-01a / EXA 1-02a Express ideas about island living and renewable energy through art, music or drama.

Health & Wellbeing HWB 1-03a Develop understanding of how energy use affects our environment and how we can care for our world.

🔍 Key Vocabulary

Island, energy, renewable, wind, solar, hydro, turbine, electricity, sustainability, natural resources

🏝️ Learning Activities

1. **Discovering Our Island**

Use maps, images, or stories to explore island life in Scotland (e.g. Orkney, Eigg).
Discuss how energy is used on an island (transport, heating, cooking, lighting).

2. **What Is Renewable Energy?**

Hands-on exploration of wind, solar and hydro energy using simple experiments:
Wind: Make and test pinwheels or mini wind turbines.
Solar: Use torches and solar panels to power small toys or lights.
Water: Build a simple water wheel with cups and spoons.

3. **Meet the Power Sources!**

Story-based session where learners meet characters representing energy sources (e.g., “Turbie” the wind turbine, “Sunny” the solar panel).
Circle time or drama role-play: Which energy would work best on our island?

4. **Build Our Island Model**

In groups, use junk materials to design and build a model of an island with renewable energy systems (solar farm, wind turbines, hydro dam).
Discuss where things would go and why (windy areas, near water, sunny spaces).

5. **Our Green Island Campaign**

Learners create posters, stories, or short presentations to convince others why renewable energy is a good idea for their island.
Optional: Invite parents or another class to a “Green Island Exhibition.”

📝 Assessment Ideas

Observation of participation and discussions

Annotated drawings/models of renewable energy systems

Pupil-created posters or presentations

Concept-checking questions (e.g. "Where would we put our solar panels? Why?")

🌱 Extension Opportunities

Link to real-life island projects (e.g. Isle of Eigg's renewable grid)

Explore energy use at home – simple eco audit

Connect with Earth Steward characters from The Sustainables if relevant

🧭 Cross-Curricular Links

Numeracy: Measure and compare how much energy small solar toys generate (e.g. how long they move in sun vs shade)

Outdoor Learning: Explore where wind and sun are strongest in the school grounds

Drama: Act out an island community deciding how to power their homes sustainably