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ECODISCOVERY

"Play And Discover The Future"



PROJECT RESULT • TRAINING & WORKSHOP MATERIALS

Classroom Activities

Four Hands-On Activities Linked to the ECOTOPIA Game

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These four ready-to-use classroom activities extend the ECOTOPIA game into hands-on, real-world learning. Each links to a game section and can be run in a single lesson with simple materials. They suit ages 10–14 and can be adapted for different subjects. Every activity lists its objective, materials, curriculum links, steps, learning objectives and a differentiation idea.

The Four Themes of ECOTOPIA

Each theme becomes a chapter of interactive, mission-based learning

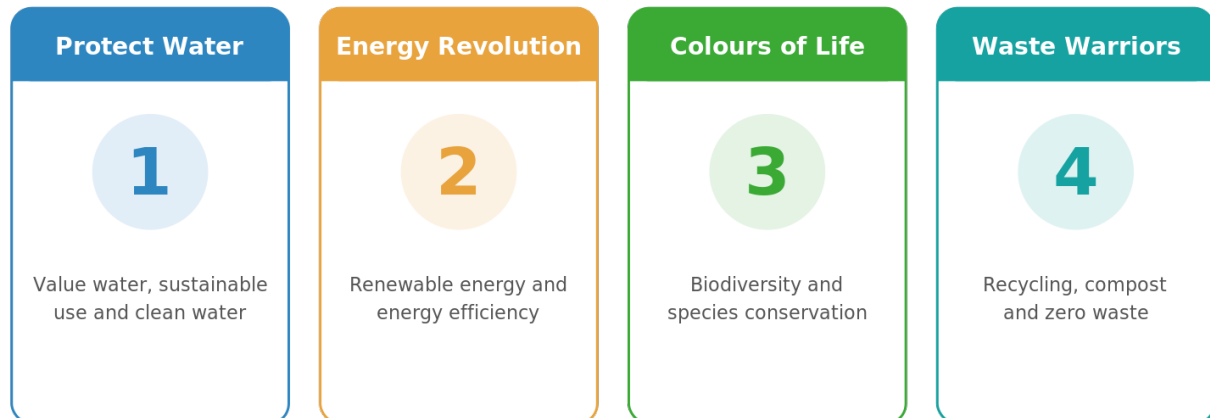


Figure 1. Each activity connects to one of the four game sections.

Activity 1 Water Saving Challenge

Section 1 • Protect Water

Objective	Learners identify and reduce water waste at school and home, connecting daily habits to measurable savings.
Duration	One lesson (45 min) + a week-long home challenge
Materials	Water audit checklist, pens; optional stopwatch and measuring jug
Curriculum	Science (water cycle, measurement); Citizenship (responsibility)

Steps

- Discuss where water is used and wasted; predict the biggest wasters.
- In pairs, complete a water audit of the classroom or a home area using the checklist.
- Calculate simple savings (for example, minutes saved in the shower).
- Each learner commits to one water-saving action for a week and records progress.
- Share results in the next lesson and celebrate the biggest savers.

Learning objectives

- Explain why fresh water is a limited resource.
- Identify personal habits that waste or save water.
- Estimate savings from a simple behaviour change.

Differentiation. Younger learners audit one tap; older learners estimate weekly litres saved and present the data.

Link with ECOTOPIA. Follows Section 1, where players find hidden water waste and fix it. **Extension:** Create a class poster of the top five water-saving tips.



Activity 2 Energy Detective

Section 2 • Energy Revolution

Objective	Learners audit energy use, spot waste and propose efficient or renewable solutions.
Duration	One lesson (45–60 min)
Materials	School map or floor plan, clipboards, pens; optional plug-in power meter
Curriculum	Science (energy sources, efficiency); Geography (sustainability)

Steps

- Introduce energy waste and “vampire” standby energy.
- Teams tour the school (or classroom) to map lights and devices left on.
- Mark waste points on the map and suggest a fix (switch off, LED, timer, solar).
- Teams present their map and the estimated impact of their fixes.
- Agree on one whole-class energy rule to adopt.

Learning objectives

- Distinguish renewable and non-renewable energy.
- Identify sources of energy waste in a building.
- Propose realistic efficiency or renewable solutions.

Differentiation. Provide a ready-made checklist for support; ask extension groups to rank fixes by cost and impact.

Link with ECOTOPIA. Follows Section 2, where players hunt energy leaks and install renewables. **Extension:** Track the class electricity habit for two weeks and compare.

Activity 3 Biodiversity Walk

Section 3 • Colours of Life

Objective	Learners observe and record local species to understand biodiversity and habitats.
Duration	One lesson (45–60 min), outdoors
Materials	Observation sheet, pencils; optional magnifiers, cameras, field guide
Curriculum	Science (ecosystems, classification); Art (nature sketching)

Steps

- Discuss what biodiversity is and why pollinators matter.
- Walk a safe route in the school grounds or a nearby park.
- Record species seen (plants, insects, birds) and where they were found.
- Back in class, group findings and discuss which habitats supported most life.
- Plan one action to boost local biodiversity (for example, a pollinator patch).

Learning objectives

- Recognise a range of local species and their habitats.
- Explain the role of pollinators in the ecosystem.
- Suggest a practical way to support local biodiversity.

Differentiation. Give picture ID cards for support; ask extension learners to group species by type or habitat.

Link with ECOTOPIA. Follows Section 3, where players document species and design a pollinator park.
Extension: Build an insect hotel or plant pollinator-friendly flowers.

Activity 4 Zero Waste Classroom

Section 4 • Waste Warriors

Objective	Learners reduce, reuse, sort and compost to move the classroom towards zero waste.
Duration	One lesson (45 min) + ongoing routine
Materials	Sorting bins/boxes, labels, gloves; optional scales and a compost caddy
Curriculum	Science (materials, decomposition); Citizenship (community action)

Steps

- Audit one day's classroom waste and sort it into categories.
- Discuss which items could be reduced, reused, recycled or composted.
- Set up labelled sorting stations and a simple compost caddy.
- Assign weekly monitor roles to keep the system running.
- Weigh or count waste weekly and set a reduction target.

Learning objectives

- Classify common waste and its correct disposal route.
- Explain the benefits of composting and recycling.
- Design a simple system to reduce classroom waste.

Differentiation. Support learners sort with picture labels; extension groups design a whole-school waste plan.

***Link with ECOTOPIA.** Follows Section 4, where players sort waste, compost and design a zero-waste home.
Extension: Run a "waste-free lunch" day and measure the difference.*

Activities at a Glance

Activity	Section	Setting	Key outcome
Water Saving Challenge	1 – Water	Class + home	Reduce personal water waste
Energy Detective	2 – Energy	School	Spot and fix energy waste
Biodiversity Walk	3 – Nature	Outdoors	Observe and support species
Zero Waste Classroom	4 – Waste	Class routine	Cut and sort classroom waste