



Journey 2: Energy to grow

Curriculum links






England & Wales

Scotland

Science, Art and Design, English, PSHE, ESD, links to Scheme of Work Unit 1B: Growing plants; Section 5: Watering plants

Science, Art and Design, English Language, PSD, Social Subjects

Energy to grow will introduce the topic of plants and the energy a plant needs. Pupils will learn:

-  To recognise that plants need light and water to grow
-  To compare what happened with what pupils expected would happen
-  To recognise and name the leaf, flower, stem and root of a flowering plant
-  To record from first hand experience
-  Sequence events and recount them in appropriate detail

Please note: To fully access the drag and drop PowerPoint activities, the presentation should be run in normal view, full slide.



Activity 1: Plants




Introduce the topic of plants by asking pupils to name as many plants as they can. Plants are made up of different parts; can pupils name of the different plant sections and reorder them in the drag and drop activity?

To further understanding, distribute activity sheet 5 to the class. This sheet requires pupils to draw and correctly label a plant. Pupils should be provided with a real potted plant to closely examine through a magnifying glass and then enjoy a focused observational drawing lesson.

Out of classroom learning

Pupils could be tasked with photographing plants found in the school grounds.

Please note – pupils should:

-  Be aware of the dangers of poisonous plants
-  Be supervised
-  Wash their hands immediately after handling plant samples

If a school has the facilities, a digital microscope could be used to magnify a plant found within the school grounds onto the whiteboard.

Resources

- Energy to grow PowerPoint slides 3 to 8
- Activity sheet 5 – plant labelling

Activity 2: Plant energy

In pairs / groups have pupils undertake a practical exercise to look at energy using activity sheet 6. Based on the hypothesis 'what will happen if...' pupils will explore a plant's need for energy. Prior to starting the activity, pupils must draw what they think will happen to the three different plants grown in different energy environments* and write why they think this. Pupils should keep a 'plant energy in action' diary to record their findings in their workbooks and once the activity is complete (over at least a two week period) pupils should revisit their drawings / answers to see if they predicted the correct outcome.

Additional resources:

If you would like to investigate the power of water and sunlight further and their roles as renewable energy sources, the free Climate Cops resource for 4 - 7 year-olds is available to order online. Check with your Science Co-ordinator to see if your school already has a copy. If not, visit the Climate Cops resources section on www.npower.com/education to order a copy for your school.



Resources

- Activity sheet 6 – what do plants need
- The Power of the Earth's Natural Energy poster

*Although we have not suggested a particular type of plant to use in this experiment, small seedlings cultivated by pupils within the classroom or greenhouse environment would be an ideal option.

Activity 3: Get growing checklist

To help pupils get ready for future growing either at school or home (parent sheets are available to download to support classroom learning in the home) create a 'get growing checklist'. Following the example on the activity sheet, pupils should aim to produce a poster detailing all the elements / energy a plant needs to grow. The checklist can be utilised in a school greenhouse or classroom / home environment to act as a reminder as to what plants need to grow. This activity sheet can also be used for a colouring in exercise.

Resources

- Activity sheet 7 – get growing checklist

Activity 4: Let's grow!

This quiz is a whole class activity and is designed to revise the topic of plants and plant energy in action. Distribute activity sheet 8 to every pupil and ask them to cut out the true and false cards. The cards show the following:

👉 True: a healthy fully-grown plant

👉 False: a wilted plant

Using the interactive flash quiz, ask pupils to hold up the card they feel is the correct response to each statement.

This activity helps to reinforce key messages in a fun and engaging way. This quiz is also available via the PowerPoint presentation.

Resources

- Energy to grow PowerPoint slides 9 to 25
- Let's grow! flash quiz
- Activity sheet 8 – let's grow!