

Plant Detectives

Activities for children aged 5–7 years

WWT has a well-established and well-loved education programme that we run across the UK at our ten wetland sites. We've designed these short activities based on one of our school activities. We've made it to connect you and your family to the natural world and help you to work with your children to feel great about nature and understand some of the things that WWT love and care about.

Why wetlands?

WWT works across the UK to save, conserve and build wetlands for wildlife and people. Wetlands are one of the most important habitats on earth – storing huge amounts of CO₂, providing a natural way of stopping flooding and serving as a home for huge numbers of different creatures.

This activity will help you and your children to explore how wetland plants grow and why they are so important to life on earth.

These activities link to the National Curricula for science in England, Northern Ireland, Scotland and Wales.

Stuff you need:

- Plants Visual
- Plant ID sheet (see final pages of this document)
- Celery with leaves still attached or white carnation flower on stem (optional)
- Food colouring – Red or dark blue work best (optional)
- Vase, jar or glass
- 3 small plants of the same type and approximately the same size and condition (in their pots)
- Sellotape
- Cardboard box

Note: Where you see a  this indicates a question to ask your child

Indoor activities

(60 minutes – Can be broken into three manageable sections)

Section 1: Plant parts

- Look at the Plants Visual. This shows two plants; a water lily and a dandelion.
- Get your child to cut out the labels and use them to label the following parts of each plant: **Roots; stem; leaves; flowers**. If they place them in the middle, between the two pictures, they can draw lines from each label to the correct part of both plants. Help your child with any they are unsure of.
- They can then stick these in place if they haven't already done so.

You can then discuss with your child what each part of the plant does:

Roots:

- Anchor the plant to the ground so it doesn't blow away. Also soak up water from the soil.

Stem:

- Carries water from the roots of the rest of the plant.

Leaves:

- Produce food for the plant.

Flower:

- Makes seeds to produce new plants.

Optional additional activity:

- Fill a vase or other container with water and food colouring (add several drops of food colouring – the more you can spare the better – red or dark blue work best).
- Cut a couple of centimetres off the bottom of the stalk of a stick of celery (with the leaves still on) or stem of a white carnation.
- Place the celery or carnation into the container with the coloured water.
- Keep observing over the next couple of days. You should see the celery leaves or carnation flower start to turn the same colour as the food colouring. This shows how the roots and stem soak up and transport water to the different parts of the plant. The colouring has been transported up through the roots and stem to the leaves / flower.

Section 2: What do plants need to stay healthy?

Q What do you think plants need to grow and stay healthy?

- Make a list of all the answers your child comes up with. Add water and light to the list if they haven't come up with these.
- We are now going to carry out an experiment to test whether plants need water and light to survive.

We are going to test how well each of the following plants grow / survive:

Plant 1:

Will have light, water and air.

Plant 2:

Will receive no water.

Plant 3:

Will receive no light.

Prepare and look after each plant as follows:

All plants:

- It is best if each plant is in its own plastic pot and has a saucer underneath to collect any water. Place them in a location such as a windowsill where they will get plenty of light.

Plant 1:

- Water each day.

Plant 2:

- Don't water at all.

Plant 3:

- Place a cardboard box over it and seal up any gaps where light might get in.
- Remove the box to water the plant each day.

- Keep an eye on your plants over the next week or so. You should see plant 1 surviving well but the other plants wilting and eventually dying. Discuss with your child why this is.
- Plants need both water and light to survive.

Section 3: The importance of plants

Q Why do animals need plants?

Discuss with your child how animals need plants to:

- Provide food. Without them there would be no life on earth!
- Provide shelter. Many animals live in and on trees and other plants. Many animals nest in them.

Take it outside:

(15 minutes)

Plant hunt

- Carry out a plant hunt. See how many of the common plants on our Plant ID Sheet you can find.

Q Which is your favourite plant? Why?

- Without plants animals wouldn't survive and there would be no life on earth.

Q How does this make you feel about plants? Aren't they amazing?

Plant parts

- Find a weed that can be uprooted. Uproot it and lie it on the ground. Get your child to point to each of the parts (**roots; stem; leaves; flowers**) and tell you what each does.



@WWTWorldwide



Have fun and do share your work to our social media accounts – we'd absolutely love to see it!

Plants visual



Plants visual cut outs

| | | | |
|--|-----------------------------|---|--|
| <p>Cut</p> <p><u>Stem</u></p> <p>Cut</p> | <p><u>Roots</u></p> | <p>Anchor the plant to the ground and soaks up water and nutrients from the soil.</p> | <p>Makes seeds to produce new plants.</p> <p>Cut</p> |
| <p>Cut</p> <p><u>Flowers</u></p> <p>Cut</p> | <p><u>Leaves</u></p> | <p>Carries water and nutrients from the roots of the rest of the plant.</p> | <p>Produce food for the plant.</p> <p>Cut</p> |

Plant ID sheet

