

Teacher Guide

Programme Overview

Affinity Water's Stream Savers programme will inspire your pupils to become Water Smart through an interactive assembly and lesson, where they'll explore:

- Why it's important to save water
- Chalk streams
- Ways to save water
- The water cycle
- How small water saving actions can have a big impact on their unique local environment

Pupils will also be invited to enter our exciting competition to design a Water Smart poster with exciting prizes up for grabs.

Eco Schools Status

Running the Stream Savers initiative in your school is a brilliant way to achieve or embrace your Eco-School Status. Your Save Our Streams Champions could start an Eco Council at your school (if you don't have one already) to help save water at school.

For more on Eco Schools, visit the link below:

<https://www.eco-schools.org.uk>

Learning objectives

- Explore our local ecosystems
- Understand why it's important to protect our natural environment
- Identify ways to save and protect water at home, in school and in our communities

Learning outcomes

- Understand what and where chalk streams are
- Know the different ways to save water and be able to share these with people at home
- Know about technologies that can provide sustainable drainage
- Become a Stream Savers champion and water campaigner by entering the competition

Curriculum links

Science: Living things and their habitats (Y4); Evolution and inheritance (Y6)

Geography: human and physical geography (KS2)

PSHE: Community and shared responsibilities; Use personal strengths, skills and interests to problem solve (KS2)

Free Water Butts for all

Running the Stream Savers initiative in your school is a brilliant way to save water. Your Stream Savers could even start an Eco Council at your school (if you don't have one already) to help save water at school.

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Competition

- Challenge your pupils to become eco-campaigners and help more people to understand why it's important to save water and protect the chalk streams.
- Pupils are challenged to create an amazing eye-catching poster that persuades people that small actions to save water can have a big impact on our important chalk streams.
- **Winning entries will be seen across the region on the side of a digibus and on digital posters. Winning schools will receive a water saving garden up to the value of £5,000 and eight further schools will receive £500 towards school supplies. All entries receive a Water Smart badge.**

Assembly

Slides 2-6
Our Water
[2 mins]



Explore how important water is to us all and why we need to ensure we don't waste water

Slides 4-13
Chalk Streams
[5 mins]



Introduce pupils to the chalk streams and explain why they're so unique.
Ask pupils to identify some of the rare biodiversity that inhabit the chalk streams.
Share the interesting facts about these species.
Test pupils' understanding by playing the true or false game.

Slide 14-15
Ben Fogle video
[2 mins]



Play the video featuring Ben Fogle. Briefly discuss with pupils the importance of chalk streams and how we can help protect them.

Slides 16-41
Stream Savers
[4 mins]



Ask pupils to share the water saving tips they already know.
Reveal any of Affinity Water's water saving tips that pupils haven't shared yet.
Play the How Water Smart Are You? quiz
Read the fact accompanying each water saving tip to share the potential impact of our actions.

Slides 42-51
Competition
[2 mins]



Introduce the Water Smart poster competition
Share the exciting prizes and explain that the winning entry will be displayed locally on digital posters and on the side of a digibus! Your school could also win a £5,000 water saving garden!

Lesson

Slides 2-7
Intro
[2 mins]



Recap the information shared in the assembly.

Slide 8-11
The Water Cycle
[3 mins]



Explore the basic water cycle.
Introduce the urban water cycle.

Slides 12-24
Becoming Water Smart
[5 mins]



Revise water saving tips to help Stream Savers.
Explores ways we can be Water Smart in school.
Explain the concept of Sustainable Drainage systems (SUDs).

Slides 25-26
Water Smart Houses
[20 mins]



Ask pupils to design and draw a Water Smart house using the template.

Slides 27-28
Competition
[5 mins]



Set the scene for the Water Smart poster competition and explain the prize.
Encourage pupils to be Stream Savers and design their own poster to share their top tips on how to save water.

Additional activities to complete with your class

Make a chalk aquifer!

Aim:

Pupils explore how an aquifer is formed and which materials are best suited to 'holding' water.

You will need:

- 6-10 kitchen sponges
- Clingfilm, foil or plasticine
- A clear plastic bowl or container
- Straw
- Syringe
- Water

Method:

Take two of the sponges and wrap them carefully and tightly in one of the impermeable materials; clingfilm, foil or plasticine. These will represent non-sedimentary rocks.

Layer up the sponges in a clear plastic container, adding in your wrapped-up sponges in various places. This is your ground.

Pour some water into the bowl or container to represent rainfall. Try not to swamp your aquifer!

Put your straw into your 'ground' to act like a borehole and use the syringe to carefully suck out water.

Can you suck water from the open sponges? What about the wrapped sponges?

Key observations:

The open sponges act like sedimentary rock (e.g. sandstone or chalk) while the wrapped sponges act like igneous or metamorphic rock (e.g. granite). In an aquifer, water seeps into the ground and is held, accessible, in sedimentary rocks. This is an aquifer.

Water Cycle in a Beaker

Aim:

Pupils conduct an experiment exploring the water cycle in a beaker

You will need:

- Marker pen
- A zip-lock sandwich bag
- A beaker or plastic cup
- Some water (coloured blue with food colouring)
- Clear tape

Method:

Use the marker pen to draw some clouds at the top of your zip-lock bag.

Add a beaker of water to your zip-lock plastic bag and close, taking care to make sure there are no gaps in the seal.

Tape the bag to a sunny window.

Monitor the bag throughout the day, making observations.

Encourage pupils to look for evidence of evaporation and condensation. Can they spot the water droplets in the clouds?

Key observations:

Encourage pupils to observe that when it is warm, water will evaporate, forming (invisible) vapour. When water vapour meets a colder surface, it will condense back into liquid water. These are the two key processes of the water cycle.

Chalk Stream Life

Aim:

Pupils research local animals and plants that live near the chalk streams and create a visual food web.

You will need:

- Access to the internet/devices
- Information books on British wildlife
- Paper and pens

Method:

Ask pupils to pick an animal or plant that lives near or in the chalk streams.

Get them to draw that animal or plant in the middle of a piece of paper.

Support them in finding out how that plant/animal contributes to the environment.

Ask them to draw their food web diagram.

Key observations:

The chalk stream ecosystem is a delicate one that needs protecting. By exploring the needs of plants and animals that live in and around this environment helps us to appreciate how important it is to be Water Smart!

