

1. Fascinating Facts - Water shortages
2. Drought Quiz
3. Drought Quiz - Answer Sheet

Aims

- To introduce pupils to key facts about drought.
- To assist in the development of informed attitudes about drought.

Materials

- A copy of Fascinating Facts and Drought Quiz and Answer Sheet for each pupil.

Method

- Ask pupils to explain what drought is and how/why a drought occurs.
- They will probably relate drought conditions to hot countries, however, explain that it is possible for drought conditions to appear in Scotland.
- Hand out Fascinating Fact sheet 1 and discuss the actions that Scottish Water can take.
- Ask pupils to work with a partner to think about how each of these actions would affect them and their families and write down their answers.
- Collate the class ideas on a large piece of paper.
(This will be useful when considering how to save water).
- The quiz may be used as a pre/post test to check pupils knowledge about drought.



Fascinating Facts - Water shortages



It may rain a lot in Scotland but there are limits to how much fresh water can be stored in lochs and reservoirs. A lack of rain or drought, as it is also called, can lead to a water shortage in as little as three weeks. That's why Scottish Water runs water saving campaigns all year around and not only during a time of drought.

When droughts do occur there are a number of actions that Scottish Water can take to prevent a water shortage.

These actions are listed in the order in which they would be introduced:

- Tell customers about the water shortage and ask them to use water even more carefully.
- Find and repair leaks in water supply system. This is the cheapest and most efficient way to protect water supplies.
- Enforce a hosepipe ban. 5% of the water that is used goes through hose pipes to water gardens in the summer.
- Pump water to a reservoir from a loch - if there is a pipe network in place.
- Pump water from one loch to another where one is short of water but only if there is a pipe network in place.
- Take more water from the river water reducing the water level in the river - Scottish Water have to ask for permission to do this
- Bring water in from another area - the Scottish Executive has to issue a drought order for this to happen.
- Water can be turned off for periods of the day.
- Bring in drinking water by tanker for people to fill bottles or buckets.
- Deliver bottled drinking water - as a last resort.



Drought Quiz

How much do you know about drought?

Try this short quiz:

Circle the answer.

1. A bath uses less water than a shower. **True or False?**
2. Which of the following will save water during a drought?
 - a. washing the car with a bucket. **Yes or No?**
 - b. washing the car with a hose. **Yes or No?**
 - c. watering the garden with a hose or a sprinkler. **Yes or No?**
 - d. watering the garden with washing up water. **Yes or No?**
 - e. turning off the tap when cleaning your teeth. **Yes or No?**
3. If there is a water shortage the first thing that Scottish Water will do is to turn the water off for a few hours each day. **True or False?**
4. The best way to ask the public to use water more carefully is a local radio advert. **True or False?**
5. It is possible to pump water from a loch to a reservoir if the water level in the reservoir is low. **True or False?**
6. The long range weather forecast is that it will remain dry and sunny for the next two weeks. The water level in reservoirs continues to fall. Which of these options would you choose? (You could choose either.)
 - a. Bring water in by tanker to increase the levels in the reservoir
 - b. turn off the water for 6 hours each day.



Drought Quiz - Answer Sheet

1. **False** - a bath uses at least twice as much water as a shower.
2. **a - yes**
b - no
c - no
d - yes
e - yes
3. **False** - Scottish Water would check for leaks in the pipe network first as finding and repairing leaks saves water and money. They would also ask the public to use water more carefully.
4. **False** - Leaflets delivered to every home are the best way to ask the public to use water more carefully as you know that everyone has seen the message, whereas not everyone listens to local radio.
5. **True** - Provided there is a pipe connection between the two.
6. **b** - This may be unpopular with the customer but it is less expensive and more efficient than bringing in water in a tanker.

4 - Activity 1 Saving Water Information Leaflet

Aims

- To increase pupils knowledge and understanding of the importance of saving water.
- To prepare a saving water information leaflet.

Materials

- A copy of Activity 1 for each pupil.
- A4 scrap paper.
- Art materials.
- Access to a computer.
- A computer graphics package.

Method

- Divide the pupils into small groups.
- Hand out the activity sheet and discuss with the pupils.
- Allocate sufficient time for the design and production of the leaflet. Each group should produce sufficient copies for distribution in the class.
- Pupils could send their designs to Scottish Water or alternatively you could invite a member of Scottish Water staff to school to discuss their designs.

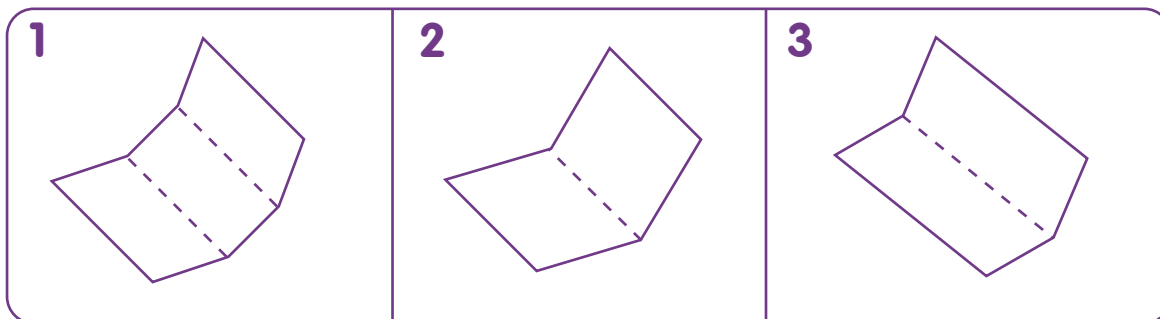


Activity 1 - Saving Water Information Leaflet

Scottish Water are looking for a general leaflet for families to explain how they can save water. It must be constructed out of one sheet of A4 paper and should be easily reproduced.

Writing a leaflet

Take a piece of A4 scrap paper and try folding it in a number of different ways. Here are some examples:



In your group discuss what you think the contents of the leaflet should be and write your ideas on the continuation sheet provided.

You might find the SEPA website useful (www.sepa.org.uk).

Think about the layout of your leaflet:

- Will you use a separate page for each piece of information?
- What drawings and graphics will you use?
- Collect some leaflets from the local library to see how other people have designed a leaflet.
- You can always copy a good idea!

Your leaflet should try to create

A - for Attention

It should be eye catching. The use of colours/graphics is important.

I - for Interest

It should be interesting to look at and be read quickly.

D - for Desire

It should make the people who read it want to prepare a flood kit.

A - for Action

It should encourage the people who read it to prepare a flood kit.

5 - Activity 2 Collecting Water

Aims

- To design and build a way of collecting water from an underground source.

Materials

- A copy of the Activity Sheet 2 for each pupil.
- Junk material.

Method

- Pupils find a partner to work with.
- Remind the pupils that people who live in hot countries such as Africa, do not have the rainfall that Scotland has (show comparison rainfall figures if available).
- Hand out Activity Sheet 2 and discuss the task. Set a dead line for completion of the task.
- Arrange an exhibition/demonstration of pupils' designs.



Activity 2 - Collecting Water

Many countries have lots of sunshine and very little rain.

This sounds lovely to people living in Scotland but living with hot dry weather can be very difficult.

1. If no rain comes from the sky, where do you think people in very warm countries have to look for water?

2. With a partner, make two drawings of ways of collecting this water.

3. Choose one of your ideas and build it using junk material.

Your model should have at least one moving part.

Write a set of instructions which explains how it works.



- 6 - Activity 3a Saving Water Campaign
- 7 - Activity 3b Saving Water Poster Campaign
- 8 - Activity 3c Saving Water Newspaper Campaign
- 9 - Activity 3d Saving Water Radio Campaign
- 10 - Activity 3e Saving Water TV Campaign
- 10 - Activity 3e Saving Water TV Campaign - Creating a Story Board
- 11 - Activity 3f Saving Water Talk

Aims

- For pupils to design and run a real Saving Water Campaign within the school and their community.
- To increase pupil's knowledge and understanding and develop informed attitudes to the use of water and the need to save it.

Materials

- Worksheets 6 - 11
- Art materials
- Access to a computer
- Computer graphics package
- Video cameras

Method

- Hand out Worksheet 6 to each pupil and as a class discuss the campaign.
- Note ideas for all parts of the campaign on a central board or large sheet of paper.
- Pupils select which part of the campaign they would like to work on and are given related task cards at the appropriate level.
- Agree a deadline and allocate time during the week for pupils to work on their task.
- Encourage pupils to speak to the Headteacher about how they could run the campaign in school.
- Discuss with the pupils what could be circulated within the community and how this might take place.

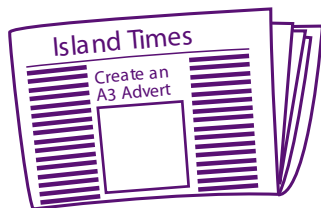


Activity 3a - Saving Water Campaign

Scottish Water would like to undertake an advertising campaign within schools and the community to encourage people in Scotland to save water.

They would like to use a number of different ways of advertising to support the campaign:

- Posters
- Newspaper advertisements
- Magazine advertisements
- Radio advertisements
- TV advertisements
- Talks/ displays



Your group will be asked to work on part of the advertising campaign.

You must prepare this part of the campaign by the deadline set by your teacher.



Activity 3b - Saving Water Poster Campaign

Your task is to produce a poster which will encourage people to save water. The poster will be displayed in school and in the community.

Your poster should try to create:

A - for Attention

It should be eye catching.

The use of colours/graphics is important.

I - for Interest

It should be interesting to look at and be read quickly.

D - for Desire

It should make the people who read it want to help save water.

A - for Action

It should encourage the people who read it to make changes and save water.



Presentation

When you have planned, drawn and coloured your poster you will have to present it to the rest of the class. Try to involve all your group in the presentation.

Helpful hints

- Before showing the poster introduce your work in a lively way.
- Say what your ideas were when planning the poster.
- Display your poster and point out to the class the ways in which it creates:

Attention

Interest

Desire

Action



Activity 3c - Saving Water Newspaper Campaign

Your task is to produce a full page (A3) newspaper/magazine advertisement for the Saving Water Campaign.

Your advertisement should try to create:

A - for Attention

It should grab people's attention when they are reading the newspaper/magazine.

I - for Interest

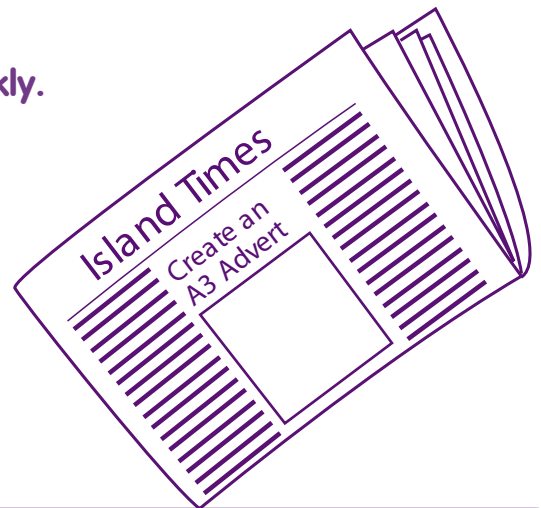
It should be interesting to look at and be read quickly.

D - for Desire

It should stimulate readers to want to save water.

A - for Action

It should inform readers how they can save water.



Presentation

When you have planned and created your advertisement you will have to present it to the rest of the class. Try to involve all your group in the presentation.

Helpful Hint

Introduce the advertisement in a lively way saying why you think it gets the message across.



Activity 3d - Saving Water Radio Campaign

Your task is to produce a 30 second radio advertisement for the Saving Water Campaign.

This advertisement should try to create the following reactions:

A - for Attention

It should make listeners sit up and listen.

I - for Interest

It should create interest in what is said and how it is said.

D - for Desire

It should stimulate listeners to want to save water.

A - for Action

It should tell readers how to save water.



Presentation

When you have planned your radio advertisement you will have to present it to the rest of the class. Try to involve all of your group in the presentation.

Helpful hint

Perform your advertisement 'live' to the class.



Activity 3e - Saving Water TV Campaign

Your task is to produce a 30 second TV advertisement for the Saving Water Campaign. One way of planning it is to use a storyboard. Look at the worksheet 'Creating a Storyboard' to see how to do this.

Your advertisement should try to create the following reactions:

A - for Attention

It should make viewers sit up and pay attention.

I - for Interest

It should create interest through what is said and how it is said.

D - for Desire

It should stimulate the viewers to want to save water.

A - for Action

It should inform viewers how to save water.



Presentation

When you have planned your TV advertisement you will have to present to the rest of the class.

Either act out your advertisement or film it and show the video.



Activity 3e - Saving Water TV Campaign - Creating a Storyboard

Your task is to produce a 30 second TV advert for the Saving Water Campaign.
One way of planning it is to use a storyboard.
Look at this example:

1

2

Each box shows/tells a different part of the story used in the advertisement.

Your advert should make viewers sit up and pay attention and want to save water.

Presentation

Either act it out or film it with a video camera and then show it.



Activity 3f - Saving Water Talk

Your task is to prepare a five minute talk about the Saving Water Campaign. It is important that you get the message across about saving water. To help you in your talk you may want to use support material e.g. flyers, posters.

Important points to include in your talk:

- Your name
- Information about the campaign
- Why we need to save water
- What people can do to save water
- Where people can get further information

Presentation

When you have prepared your talk you will be asked to present it to the rest of the class.

Helpful hints

- Introduce your talk in a lively way
- Try to include all of your group in the presentation
- Try to answer any questions