

Water

Grades 2-4

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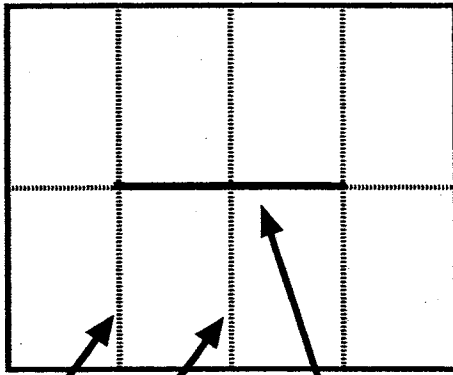


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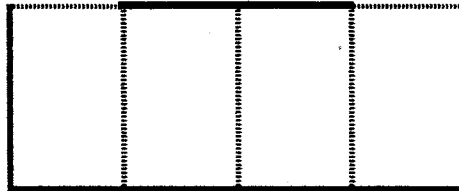
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Mini Book

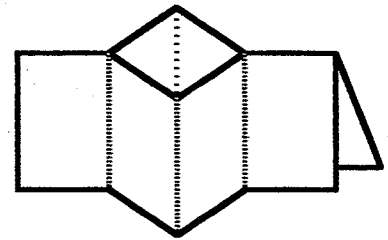
Make a mini book to tell the story of a drop of water. Use only one sheet of paper. Fold and cut your paper as show in the diagrams.



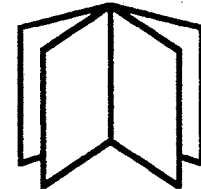
fold lines cut line



Use the eight sides of your book to make a story and draw pictures about the journey of a drop of water as it travels through the water cycle.



push ends together



fold to form a four leafed book

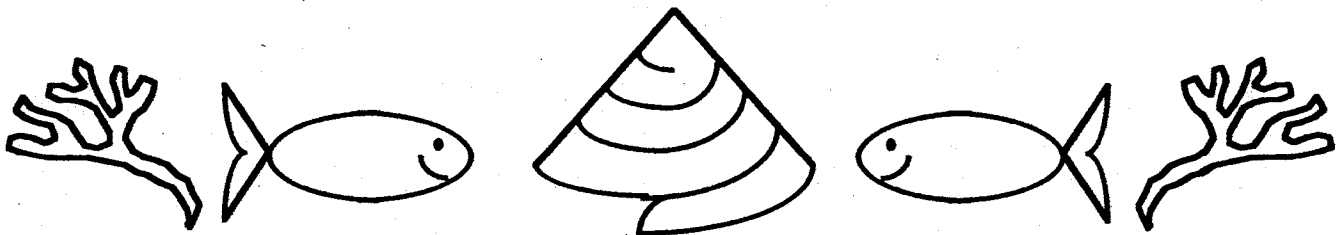
Water stories

Activity Card

Life in the Sea

Can you write your own 'watery' story? Using a very thin mixture of blue paint completely cover one side of a piece of white writing paper. When this 'wash' has dried, decorate the border of the paper by drawing small marine objects, eg. sea shells, seaweed, jelly fish, crabs, etc.

Now imagine you are a creature living in the ocean. Write a story on your 'sea' paper about your life as this creature.

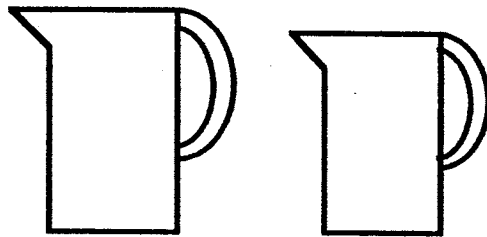


Water stories

Activity Card

Can you work out the answer to this problem?

Chad was making a fruit cocktail. He needed to put in 20 tsp. of orange juice, but he did not have a measuring jug. All he had were two jugs, one which held 80 tsp. of liquid and one which held 100 tsp. After a great deal of thought he realised that he could measure out exactly 20 tsp., using these two jugs. Can you work out how he did it?

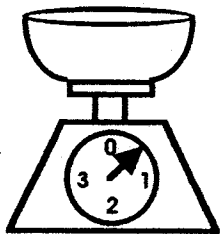


Water measure

Activity Card

How heavy is water? If you weigh a jug containing 1 litre of water, how can you find out the weight of the water only?

Now find out the weight of the following amounts of water. Copy out this chart and fill in the answers.



- 1 quart = _____ ounces
- 3 cups = _____ ounces
- 1 cup = _____ ounces
- 2 cups = _____ ounces
- 1½ cups = _____ ounces
- ¼ cup = _____ ounces



Do you think that other fluids will be the same weight as water? Try weighing milk, cola, fruit juice, and salt water solution. Record your results.

Water weight

Activity Card

In the western world, water is always available in houses, but in other countries it often has to be brought from a well or a standpipe. In Africa this job is usually done by children. On average, they walk the same distance as three circuits of your playground. Try it!

You will need:

- a bucket
- a measuring jug
- a timer



1. Fill your bucket with 4 quarts of cold water.
2. Go to the school playground.
3. Start the timer.
4. Walk three times round the playground, carrying the bucket of water.
5. How long did it take you? Did you still have the same amount of water in your bucket when you'd finished?

Water carrying

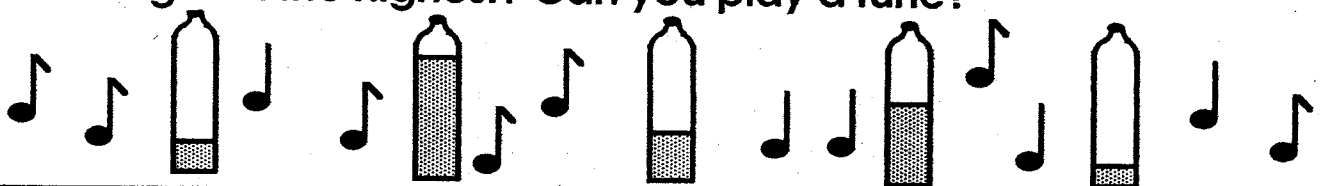
Activity Card

Sounds can be made using vibrations in water. Large amounts of water vibrate slowly and make a low sound; small amounts of water vibrate quickly and make a high sound. Try this experiment. You will need:

- several identical empty glass bottles
- some water
- a spoon

1. Pour a different amount of water into each bottle.
2. Tap the side of each bottle with the spoon.

What happens? Do they all sound the same? Which ones make the low notes and which ones make the high notes? Can you arrange them in order, starting with the lowest and finishing with the highest? Can you play a tune?

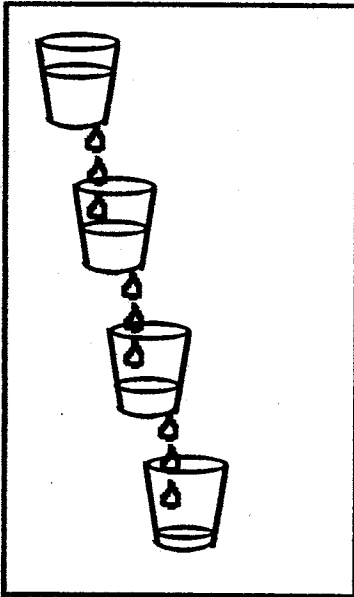


Water vibrations

Activity Card

Water Clock

Make a simple water clock by using plastic cups, thumb tacks and a piece of soft board.



Fix the plastic cups to the board by pushing a thumb tack through the cup just below the rim. Line them up so that the bottom of one cup just overlaps the rim of the one below it. Make a small hole in the bottom of the top three cups so that the drops will fall into the cup below. Pour a measured amount of water into the top cup and make up your own units of time.

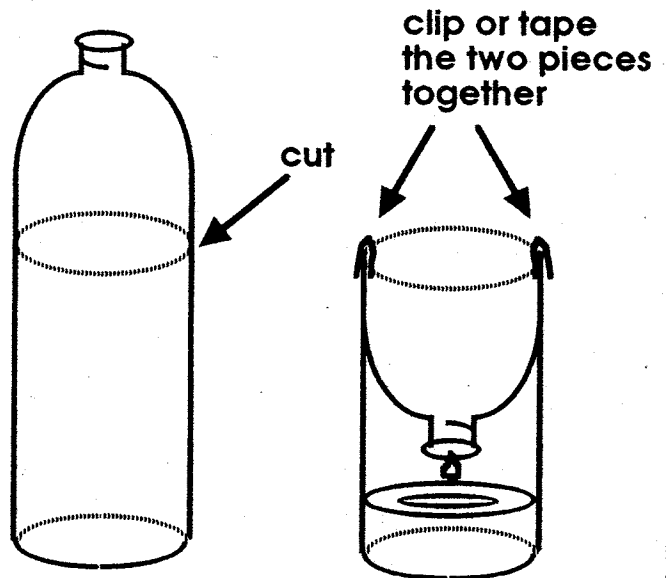
Water clock

Activity Card

Rain Gauge

Make a rain gauge from an empty, plastic drink bottle.

Cut the top off the plastic bottle as shown. Turn the top piece upside down and place it in the bottom piece. (This prevents the water from splashing out of the container if the rainfall is heavy). Mark off a strip of sticky paper in centimeters and stick it down the side of the bottle. Measure how much rain falls in a day, week, etc.



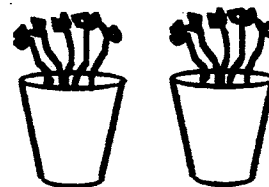
Water rain gauge

Activity Card

All plants need water in order to grow. Without water they will die. Try this experiment.

You will need:

- two small cartons
- some potting compost
- a packet of cress seeds



1. Fill the two cartons with compost.
2. Sow some of the cress seeds in each carton.
3. Cover the seeds with a thin layer of compost.
4. Put both of the cartons in a warm, sunny place.
5. Water one of the cartons every day, but do not water the other one at all.
6. What do you think will happen? Keep a daily diary, writing down what you notice about each of the cartons of cress. Draw a picture to show the growth of the plants.

Water growing

Activity Card

If the weather is very hot for a long period of time, say a few weeks, and there is no rain at all, then a drought occurs. This often happens in third world countries such as Ethiopia.

Make a list of all the things you think will happen there when there is a drought. Now try this experiment. You will need:

- an old saucer
- some soil
- some cold water
- an old tablespoon



1. Put a few tablespoons of soil on the saucer.
2. Pour on some water and mix it in until you have a saucer full of mud.
3. Put the saucer of mud on a sunny windowsill and leave it there for a few days.
4. Keep a daily diary, writing down what has happened to the soil. Draw a picture to show what it looks like each day.

Water drought

Activity Card