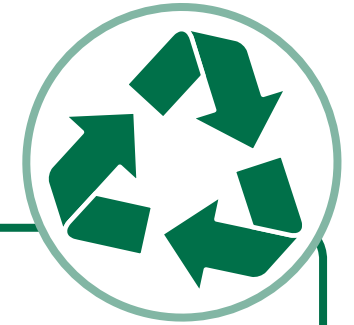




# Recycle, reuse

## ★ What do I do?



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1. Read the ACTIVITY CARD to familiarise yourself with the activity.
  2. Check the Resources list – see overleaf.
  3. Set the scene by discussing the article. What do the children already know about paper-making? Does the story give them some ideas?
  4. Encourage the children in small groups to try to work out why there is a damaging effect on the environment by not recycling paper (see Background information).
  5. Let children look closely at the fibres in different samples of paper (you could use a digital microscope to share images with the whole group).
  6. Each group can make their own paper following the instructions provided.
  7. Let children experiment on their own but give help to any children who seem to be struggling.

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8. An iron can be used to speed up the drying process.
  9. For more guidance about paper making go to [www.britishtscienceassociation.org/creststar](http://www.britishtscienceassociation.org/creststar)
  10. You or the children could take photographs of the process.
  11. Give the children time to compare their paper samples and think about what has made a difference. Talk about which papers are good for recycling.
  12. Children could display their paper once it is dry. They could write messages on it. Crayons and pencils are generally better than ink.
  13. There are extra challenges on the ACTIVITY CARD. These can be used if there is spare time or the children want to carry on investigating at home and earn a bonus sticker.



## ★ Handy hints

### Background information

- ★ Paper is made from cellulose fibre as well as wood pulp. It can also be made from straw, rags, grass, even elephant dung! In 2004, 74% of UK paper was recycled.
- ★ As paper is made from sustainable forests, recycling is carried out for environmental benefits, not to save trees. Paper in landfills produces methane, which is a potent greenhouse gas. Recycling 1 tonne of paper saves 30,000 litres of water, 3,000-4,000 kwh of electricity and 95% of air pollution, compared to the production of 1 tonne of new paper.

### Resources

- ★ Used paper e.g. newspaper, coloured paper, sugar paper
- ★ Magnifying glasses or microscope
- ★ Washing up bowls and warm water
- ★ Hand whisks (PAT tested electric whisks or blenders can also be used) or mashers
- ★ Metal coat hangers shaped into a rough rectangle covered with old tights or nylon stockings to make a sieve
- ★ Absorbent material – e.g. blotting paper, layers of newspaper or cloth
- ★ Rolling pins, bottles and/or iron (PAT tested) to help to dry the paper
- ★ Starch (optional)
- ★ Colouring, glitter, bits of foil etc. to add to the paper. Leaves, buttons, string etc. to place on top of the paper, before it is dried, to make patterns.
- ★ Crayons, pencils etc.
- ★ See website for more information about paper making resources  
[www.britishtscienceassociation.org/creststar](http://www.britishtscienceassociation.org/creststar)

### Things to look out for

- ★ Homemade paper can take many days to dry naturally.
- ★ Ensure pulp evenly covers the frame.
- ★ If the pulp is very thick the paper will be lumpy.
- ★ Homemade paper is sometimes difficult to write on. It can be too bumpy and too absorbent.
- ★ You can add a little starch to paper to improve its texture.

### Safety

- ★ Irons, electric blenders or whisks are best used by an adult. Keep the iron at a low temperature.

