



## Art and Design Teaching Notes

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**for ages 5-7**  
with Cross Curricular links

These notes accompany the PaperWorks Pack 1 whiteboard presentation:  
<http://www.paper.org.uk/paperworks/presentation1/>  
and are free to use within the classroom.

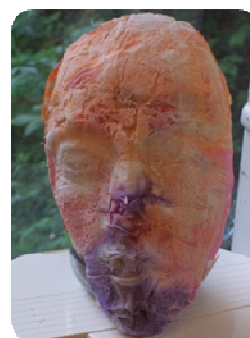
## Introduction

### Welcome!

PaperWorks Pack 1 is an interactive, themed educational resource designed to show pupils the value of paper.

Aimed at 5-7 year olds, the pack content explores the creative nature of paper, its versatility and the journey it makes from the mill to our homes, shops and offices.

Exploring the value of paper through imagery, video and an interactive game, pupils will see artists using paper. They will then have the opportunity to make their own paper-based toys.



© Faux Arts

### This pack contains:

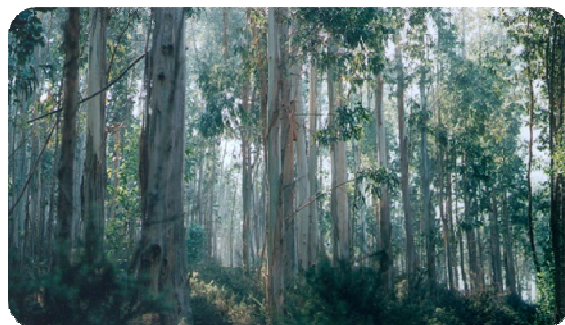
- Background information on paper production and the importance of paper
- Ideas for a themed week (page 9)
- Six Art and Design lesson ideas (pages 10-12) with curriculum links
- Lesson ideas for Literacy, Maths, Science, Geography, History and Computing (pages 13-14) with curriculum links
- Supporting notes for the Whiteboard Presentation and online worksheets

### You will need:

- A computer
- An audio system
- An Interactive Whiteboard to gain full value from this resource

## Paper: The Facts

- Of the fibres used to make paper in the UK, over 70% comes from recovered paper recycled by households and businesses. The rest comes mainly from virgin wood fibre from trees grown in sustainably managed forests. Pulp is a mixture of fibres and water.
- Waste paper sent for recycling is recovered and reused to make new paper. This paper is called "Recovered Paper" or the "The Urban Forest".
- Paper fibres can only be recycled around 4-7 times as they increasingly degrade in the recycling process, and eventually lose their papermaking qualities. Degraded fibres are replaced with new, virgin fibres, often from recovered paper that has not previously been recycled.
- Without virgin fibres from new trees, the paper cycle can neither begin nor continue.
- Almost any used paper can be recycled, including newspapers, cardboard, packaging, stationery, 'direct mail', magazines, catalogues, greeting cards and wrapping paper.
- Every year more than 10 million tonnes of paper and board are consumed in the UK.
- In 2011, 8.0 million tonnes of used paper and board was collected for recycling.
- In promoting the UK's paper recycling industry, jobs can be created in collection schemes, sorting plants, recycled paper mills, and the design, marketing, advertising and distribution of recycled paper products.
- The UK paper industry is the largest recycler in Europe and is the UK's most successful recycler.

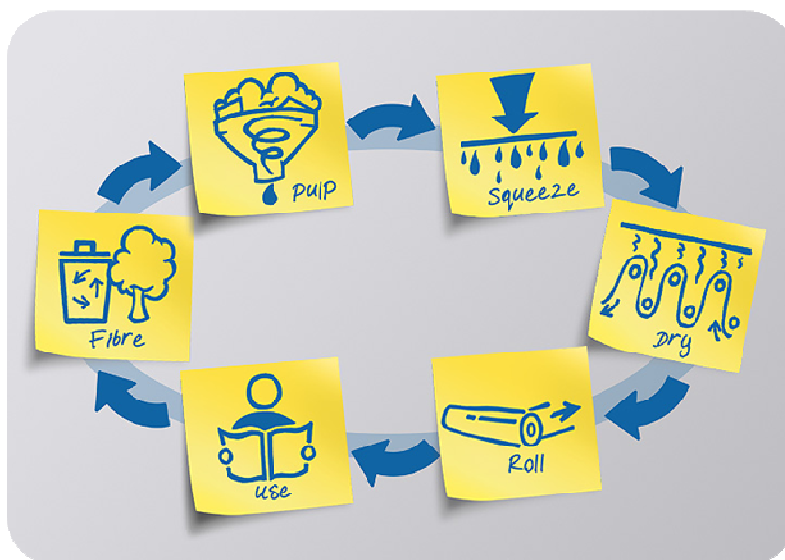


## Paper Production

Most of the paper made in the UK is made using recovered paper recycled by households and businesses. This used paper is taken to paper mills to be cleaned and turned into a pulp (in this case, a soggy mixture of shredded paper and water) ready for the next process of papermaking.

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Without virgin fibres, from new trees, the paper cycle can neither begin nor continue.



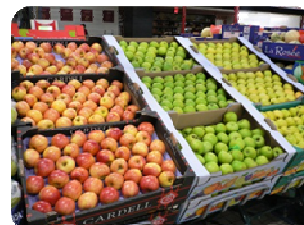
The pulp is passed through a papermaking machine in which it is squeezed, dried and rolled to make new paper. The paper is then converted into everyday products such as, newspapers, books, tissues and cardboard boxes/packaging.

## The Importance of Paper

It's difficult to imagine a world without paper. We use paper for writing, reading, packaging and absorbing liquids. Everything from nappies to birthday cards use paper.

Cardboard is used for protective packaging and to help make transporting goods easier. It also informs us of the details of the products inside the packaging so we can make purchasing decisions.

Artists and designers use paper because of its presentation qualities. It's cheap, convenient to use and environmentally friendly.



### Protecting with cardboard

Prevents insects feeding on fruit and vegetables

Makes transporting goods easier

Prevents goods being damaged

Provides information on the product

Reduces food and product waste

### Celebrating with paper

Celebration cards

Present wrapping

Tissue paper

Present boxes

Parcel bags




Whilst we have a digital version for just about anything now, we still use millions of tonnes of paper.

***Paper is here to stay and pupils should be aware of its importance in their lives. Would it be easy to live without it?***



## Presentation Notes

Below, you'll find an image of each slide found in the main whiteboard presentation and its accompanying notes.

<p style="text-align: center;"><b>Slide 1</b></p> 	<p><b>Paper is made from...</b></p> <p>Here you'll find images of the two main sources of the fibre used to make paper: recycled paper and wood. Explain the concept of recycling paper and mention how most paper items can be recycled.</p> <p>Explain that the fibres can only be reused to make new paper up to 7 times before they break apart. Fresh fibres are added to replace the broken fibres.</p> <p><i>You might like to ask pupils whether they recycle and how. How do they recycle in school and at home?</i></p>
<p style="text-align: center;"><b>Slide 2</b></p> 	<p><b>Paper is used for...</b></p> <p>This slide shows 4 images of every day paper objects: cards, cereal boxes, egg cartons and newspapers.</p> <p><i>Ask pupils to list all the items in their classroom that are made from paper. Ask them to cut out various paper objects they can see in magazines. They can stick their cut-outs on</i></p> <p><b>Worksheet 3.</b></p>
<p style="text-align: center;"><b>Slide 3</b></p> 	<p><b>The Paper Trail</b></p> <p>This video shows the main stages of paper production. You may wish to use the script below:</p> <p>Paper comes from mainly two sources: recycled paper and wood. Each piece of paper is reused when you put it in the recycling bin. It is taken to the paper mill where it is mixed with water to turn it into a pulp. It's washed, squeezed and dried</p>

and then wound onto a big roll ready to be made into something else. Mention again that the fibres can only be reused to make new paper up to 7 times before they break apart. Fresh fibres are added to replace the broken fibres.

*You might consider using 'talk for writing' techniques by repeating the papermaking process using hand actions. Stress words such as: recycling, pulping, rolling and using.*

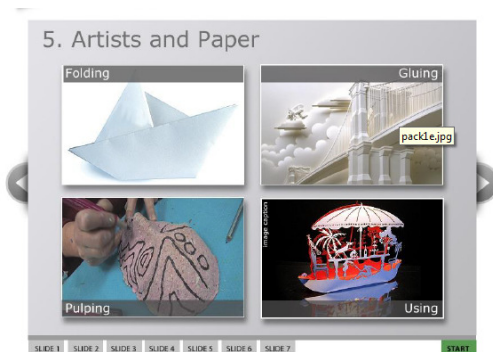
## Slide 4



## The Paper Game

Here is an unfinished diagram of the papermaking loop. Ask pupils to drag each post-it note to the correct place in the papermaking loop. We've done the first one to help you.

## Slide 5



## Artists and Paper

These images are the work of a variety of paper artists (*top right: Jeff Nishinaka, bottom left: Sue Faux and bottom right: Helen Snell*). Discuss how paper can be pulped, folded and cut and made into very creative objects.

*Discuss the work of Jeff Nishinaka on the links page of the PaperWorks website and how he uses paper creatively.*

## Slide 6

### 6. Fun with Paper



## Fun with Paper

This is a video of Sue Faux showing Meg, Hannah and Nelly how to have fun with paper. They shred used, coloured paper and put it into a bowl. They add water to the bowl and squeeze them together to make a paper pulp. Once the pulp is soggy and blended well, they make a mould of three objects by adding the pulp, squeezing out the water using a sponge and letting them dry.

## Slide 7

### 7. Summary



## Summary

This slide shows that if we put used paper in a recycling bin, it will be transported to the paper mill, pulped, squeezed, dried and rolled and made into new paper.

Summarise how paper is used in the classroom and at home, and the fun ways it can be made into various arts and crafts.

*You may wish to explore the images first by asking pupils what is happening in each picture and then clarify using the script above.*

## Using PaperWorks in the Classroom

PaperWorks offers a themed approach. The video-led presentations and interactive activities will help you inspire pupils by showing them:

- ♻️ How paper is made.
- ♻️ What its properties are.
- ♻️ How it can be used creatively.

PaperWorks can also be used within a themed week, by combining the ideas offered in packs 1 and 2.

Here's an example of how a school could offer a PaperWorks themed week:

Day/Week	Topics
1	<b>PLAYING WITH PAPER</b> Pupils will explore and describe different textures and uses of paper by: drawing on it, cutting it, painting it, folding and making simple structures (examples are shown in the Whiteboard Presentation)
2	<b>MAKING A PAPER HAT</b> Pupils will learn and implement various folding techniques to make a hat
3	<b>MAKING PAPER PULP</b> A simple activity making paper pulp following the techniques shown in the Whiteboard Presentations
4	<b>TALKING ABOUT PAPER</b> Pupils will create a word bank to describe paper and solve paper-based Maths problems
5	<b>SHOWING OUR WORK TO THE SCHOOL</b> A PaperWorks exhibition

## Art and Design Themes

### 1. Nature rubbings

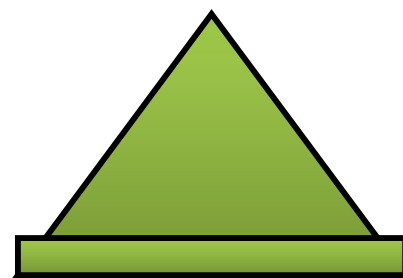
Paper is soft and strong enough to be used for making simple rubbings. For example:

- 🧐 Collect a range of leaves, stones or bark of a tree.
- 🧐 Pupils can make rubbings of these items using different grades of paper and colouring materials. See what the effects are and show children how the choice of paper will create different textures. Discuss which paper and colouring tool produces the best results.

### 2. Making a sailor's hat

Remind pupils that paper is flexible, strong and can be folded creatively to make various paper toys. For example:

- 🧐 Find a piece of *A3 paper*, ensuring the shortest sides are along the top and bottom.
- 🧐 Fold the piece of paper in half, from bottom to top.
- 🧐 Flip the paper so the folded edge is running along the top.
- 🧐 Fold the top corners into the middle so you see two triangles at the top.
- 🧐 Fold one of the bottom flaps up so it meets the triangles.
- 🧐 Flip the hat over and fold the other bottom flap up.
- 🧐 Flip it over again and tape the triangles down.



## 3. Decorating the sailor's hat

There are so many different paper types, colours and textures that can be used decoratively on many different objects. For example:

Create a theme for decorating the sailor's hat, such as 'The Seaside'. Ask pupils to bring in a mixture of paper types, weights, colours, textures and shapes from home that relate to the sea. Encourage pupils to plan their design and explain to you how their hat design relates to the seaside.

## 4. Criss-cross Christmas trees

Remind pupils that paper can be thin and therefore soft, like toilet paper, but can also be thicker, and tough enough to stand up - like a birthday card. Please use **Worksheet 1** for the Christmas tree templates.

- 🕒 Ask pupils to draw around the tree templates onto thick paper or card.
- 🕒 They need to draw and cut out two of these.
- 🕒 Follow the cutting guidelines on each tree.
- 🕒 Decorate the trees.
- 🕒 Fit each of the trees together by slipping one of them over the other.

This is a good activity to promote pupil discussion about the different uses of paper: from the softest tissues to heavy card. Pupils will encounter a wide variety of grades in their homes and a 'detective trail' could form the conclusion of this lesson.

## 5. My Paper Tree Collage

Remind pupils that paper can be produced in various textures, strengths and colours. Mention that designers use these different paper types to make collages before designing a room in a house, a garment or a product.

Describe to pupils what a collage is and the reasons why we use them (e.g. when designing the interiors for a house, clothes for a clothing line etc). Use the nature rubbings from page 7 to create a tree collage. Model how they can use their leaf, stick and bark rubbings to decorate a tree. Photocopy **Worksheet 2** for pupils to use as an outline for their collage.



*English curriculum link:* Ask pupils to examine their finished collages and write adjectives to describe the paper they used. Ask which is their favourite and why.

## 6. Making a paper mould

Paper pulp is soggy but can be dried to create paper that is hard, soft, floppy or shiny. Show pupils how paper pulp can be moulded around an object and how strong it becomes when dried.

Using Sue Faux's paper pulp technique, ask pupils to bring in an item from home that they want to recreate using paper pulp. You may wish to provide them with a list of options to ensure they choose an object that will not absorb the water e.g. a mug, a box, a plastic toy etc.

Once made, they can mould their pulp around their object, leave to dry and decorate it with felt pens or paint.



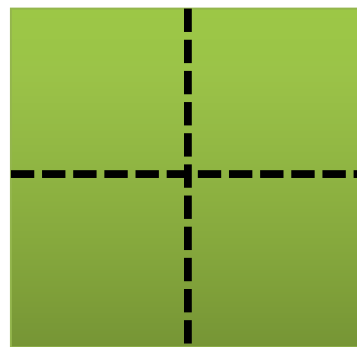
## Other Curriculum Links

### Literacy

- 🗎 In order for pupils to realise how often paper is used in one day, it may be useful for them to create a 'paper diary'. Ask them to list all the times they've used paper throughout their day from waking up until bedtime. You can use **Worksheet 4** for this exercise. As an extension, you may wish to ask pupils how they use paper on the weekends.
- 🗎 Ask pupils to think of various paper objects and to write an adjective on a post-it note to describe it. Use the words on each post-it note to create a word bank and ask pupils to think of paper objects that fit the description.
- 🗎 Use words from the post-it notes and make a poem about paper as a class.

### Maths

- 🗎 Fold paper into various equal parts to show the concept of fractions. Give pupils the challenge of folding paper in half and asking them to colour in 'one half'. You may wish to move onto quarters and ask them to colour in three quarters etc.
- 🗎 Practice money handling by creating a 'paper shop' on the interactive whiteboard. Ask pupils to think of paper objects that you could sell and allocate prices to them. Practice addition and the application of numbers by asking the price of items 'altogether'.



### Geography

- 🗎 Draw a simple plan of the school numbering various destinations. Ask pupils to follow the plan and note all the various paper objects at each location. This will test their directional and mapping skills. You can use **Worksheet 5** for this exercise.

### History

- 🗎 Discuss how we used to communicate before paper - show pupils some pictures of the Rosetta Stone, Dead Sea Scrolls (commonly made of animal skin), bamboo scrolls, messengers and the pyramids, for example. Discuss how paper allows us to communicate faster, more conveniently and more widely. Make a comparative list on whether the different means of communication have the same qualities (e.g. paper and animal skin are both soft but animal skin cannot easily be torn by hand).

## Computing

- Remind pupils all of the different qualities paper can have (e.g. it can be waterproofed, strengthened, softened, dyed, rolled etc). Using Microsoft Paint®, ask them to design a 'super-paper' - a piece of paper with special powers. Encourage them to think about the design, what uses it will have and why. Ask them to present their design to the class and describe all the special powers it has.

## Credits

The CPI wishes to thank the following for their invaluable contribution to these resources:

- ♻️ Smurfit Kappa SSK  
[www.smurfitkappa-paperuk.com](http://www.smurfitkappa-paperuk.com)
- ♻️ Sue Faux of Faux Arts  
12, High Street, Pewsey, Wiltshire SN9 5AQ (bio overleaf)
- ♻️ Jeff Nishinaka, paper artist  
<http://www.jeffnishinaka.com/>
- ♻️ Helen Snell, paper artist  
[www.axisweb.org/artist/helensnell](http://www.axisweb.org/artist/helensnell).

## Sue Faux

Sue Faux, best known for her fine art portrait figures, has exhibited nationally and internationally since leaving Aberystwyth University in 1991, where she specialised in fine art painting and fine art drawing.

In 1995, she lost her sight for 2 years and since it returned has had an increasing interest in sculpture and its relationship to painting and drawing. She now works alongside oils, in plaster, paper pulp, concrete and clay.

"I work in anything, with anyone, for anyone, and this means that I constantly experience new ways of working and new methods"

*In 2000 she started Faux Arts which uses all the experience of different medias and techniques to deliver arts experiences in a wide number of settings, amongst them, skate parks, urban streets, hospitals, schools, shops, youth centres, and out in the Wiltshire downs, where she lives.*