

## Wool the Wonder Fabric

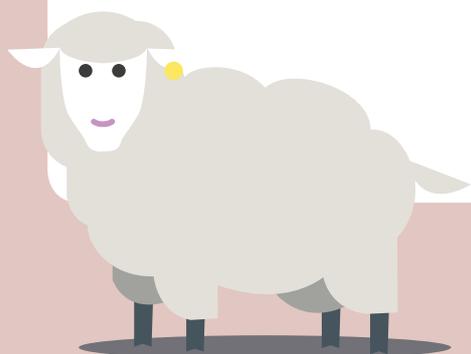
### Introduction

These materials are intended to provide lesson ideas for Science, Design & Technology and English. The ideas and materials are suitable for children at KS1 and KS2 although some differentiation will be necessary for the youngest children.

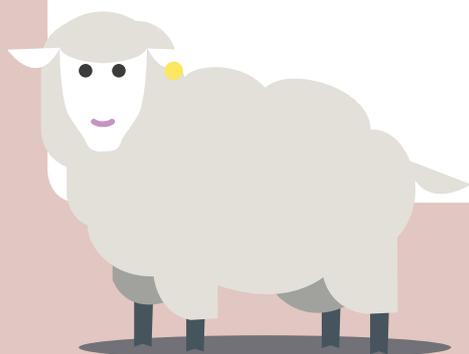
### Project overview

Design a unique clothing product using wool, the wonder fabric, as the main material.

Stage	Overview
Introduction	<p>This provides an overview of the project for children to see the stages they will go through and introduces the challenge.</p> <p>What are sheep used for in the UK?</p> <p>History of sheep and their uses – meat, wool, milk</p>
1: Properties of materials investigation	<p>Children are challenged to design and carry out a fair test to explore properties of a range of fabrics that would make them suitable as a 'wonder fabric'.</p> <p>KS1: Set the scene.</p> <p>Some children are being asked to wear some very uncomfortable clothing believe it or not made from a range of materials.</p> <p>Some children are being asked to wear new school uniforms made from some strange materials. Some of them look rather uncomfortable!</p> <p>What other investigations could be carried out to test for suitability e.g. pull test, twist test, softness test.</p> <p>KS2:</p> <p>Investigation 1: How do the insulation properties of wool compare with other fabrics?</p> <p>Investigation 2: How do the waterproof properties of wool compare with other fabrics?</p> <p>Investigation 3: How do the sound insulating properties of wool compare with other fabrics?</p> <p>Children complete product testing planning sheet to plan their ideas.</p> <p>Children complete an investigation summary task to contribute to their wool design and evaluation sheet and to use in the marketing task.</p>



Stage	Overview
<p>2: Lesson on how to use wool to complete simple DT techniques</p>	<p>Link into craft techniques:</p> <p>Wet felting to create a flower or mini hat around a table tennis ball.</p> <p>Weaving using a cardboard base etc to create a patterned piece of fabric.</p> <p>Pompom making.</p>
<p>3: Product development planning</p>	<p>How does wool compare to other materials tested – synthetic / man-made, natural etc? Rate it against the other materials.</p> <p>Why use wool? Video links about wool v synthetic and the plastic pollution ideas <a href="http://www.campaignforwool.org/2019/04/18/choose-the-world-choose-wool/">http://www.campaignforwool.org/2019/04/18/choose-the-world-choose-wool/</a></p> <p>KS1 and KS2: Children complete product development planning sheet to plan their ideas (sheets will be differentiated and editable so that teachers can adapt them to the needs and ages of their class).</p>
<p>4: Advertising</p>	<p>Marketing</p> <p>Discuss features of explanation writing and challenge children to write their own detailed explanation for how effective wool is as a material for a coat / gloves / hat etc. Then use this as a starting point for a promotional video / advert for the new wonder wool products.</p> <p>KS1 children could write instructions for how to make a flower. Depending on time of year, it could be how to make a red flower as a poppy for Remembrance Day.</p> <p>Discuss features of persuasive writing and challenge children to write their own persuasive advert or speech to explain how their product solves a problem and why it should win. This could be presented as a speech video, power point, radio / TV / magazine / stop motion advert, persuasive letter etc. See <a href="https://www.youtube.com/channel/UC-glo52BMvZH9PPUamjGlcw">https://www.youtube.com/channel/UC-glo52BMvZH9PPUamjGlcw</a> for ideas of simple adverts that are very persuasive.</p>



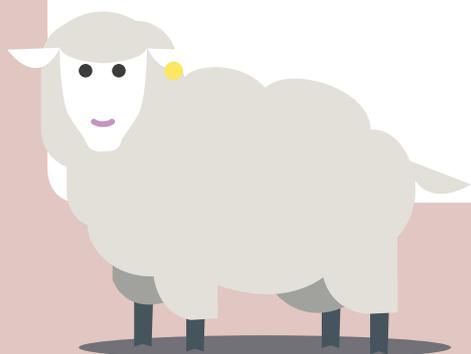
## Presentation notes

### Resources

- PowerPoint presentation
- Internet

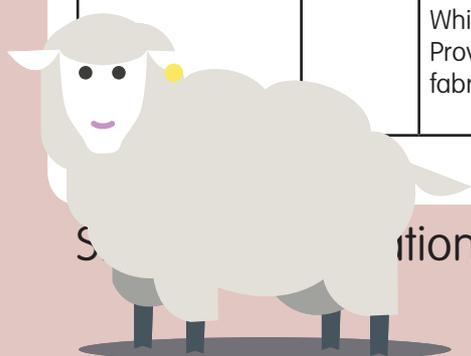
These notes also appear on the PowerPoint 'notes' pages.

Slide 1:	Landing slide
Slide 2:	<p>History of sheep</p> <p>For more information on sheep breeds and sheep farming in the UK use these links:  <a href="https://www.nationalsheep.org.uk/know-your-sheep/sheep-breeds/">https://www.nationalsheep.org.uk/know-your-sheep/sheep-breeds/</a>  <a href="https://www.nationalsheep.org.uk/know-your-sheep/uk-sheep-farming/">https://www.nationalsheep.org.uk/know-your-sheep/uk-sheep-farming/</a></p> <p>What do you already know about sheep?            Where do they live?            What are they used for?</p>
Slide 3:	<p>Wool, meat and milk</p> <p>Milk, wool and meat are the main commercial uses for sheep around the world.</p> <p>Discuss what the children know already or where they already use the three main products from a sheep.</p> <p>General sheep husbandry video: <a href="https://www.youtube.com/watch?time_continue=2&amp;v=t504SAEMuVE">https://www.youtube.com/watch?time_continue=2&amp;v=t504SAEMuVE</a></p> <p>Watch this video for sheep shearing to remove the fleece as it explains and shows both how and why it is important to remove the fleece from the sheep each year: <a href="https://www.youtube.com/watch?v=LZ111JSyE2I">https://www.youtube.com/watch?v=LZ111JSyE2I</a></p> <p>Sheep are milked just like cows in many countries and their milk is used to produce delicious cheeses.</p> <p>If you want to contact a farmer to discuss this actually on the farm, you could look for a farm using this link <a href="https://www.countrysideclassroom.org.uk/places">https://www.countrysideclassroom.org.uk/places</a> or even Facetime (or Skype) a farmer, which you can arrange via this link <a href="https://www.facetimeafarmer.com">https://www.facetimeafarmer.com</a> Always remember, if you are visiting a farm check the safety code of practice <a href="https://bit.ly/2Mu9xRp">https://bit.ly/2Mu9xRp</a></p>
Slide 4	<p>What is wool used for? This slide describes five uses of wool.</p> <p>Wool shoes - <a href="https://www.allbirds.co.uk/pages/our-materials-wool">https://www.allbirds.co.uk/pages/our-materials-wool</a></p> <p>To view a video where wool is used for house insulation, see: <a href="https://www.youtube.com/watch?v=ub6v4nZziok&amp;t=36s">https://www.youtube.com/watch?v=ub6v4nZziok&amp;t=36s</a></p> <p>Surfboards <a href="https://www.newshub.co.nz/home/rural/2018/12/kiwi-ingenuity-develops-world-s-first-wool-surfboard.html">https://www.newshub.co.nz/home/rural/2018/12/kiwi-ingenuity-develops-world-s-first-wool-surfboard.html</a></p>
Slide 5:	Your challenge



## Stage 1 Lesson Overview

Activity	Time	Overview
1: Presentation	10-15 mins	<p>A presentation to review current knowledge and understanding about insulation properties and terminology.</p> <p>Why do we need insulators?</p> <p>How do we use insulators?</p>
2: Activities – choose one or more	30-60 mins	<p>KS1 Activity: Which materials are the most suitable for clothes? How many ways can you sort these materials?</p> <p>KS1 children could also investigate the KS2 investigations below with some adaptation to the recording element of the investigations and increased support.</p> <p>KS2 Activity 1: How do the insulation properties of wool compare with other fabrics?</p> <p>In this investigation the children can ask a question related to the insulating properties of different materials, including wool.</p> <p>Using prompts such as question starters the children can then set up their investigation: Which ...? What...? How does ....?</p> <p>Provide a range of resources such as: Bubble wrap, wool (woolly socks if you can't access a wool fleece), cotton, nylon, acrylic, paper, warm water, ice cubes, stop watch, bottles/containers, range of cups (with or without lids), tinfoil, other materials, data logger or thermometer, possibly hot jacket potato.</p> <p>KS2 Activity 2: How do the waterproof properties of wool compare with other fabrics?</p> <p>In this investigation the children can ask a question related to the waterproof properties of different materials, including wool.</p> <p>Using prompts such as question starters the children can then set up their investigation: Which ...? What...? How does ....?</p> <p>Provide a range of resources such as: Wool (woolly socks if you can't access a wool fleece), cotton, nylon, towelling, tights etc. graduated pipettes, containers of water, measuring cylinders, funnels.</p> <p>To research the answers to key questions:</p> <ul style="list-style-type: none"> <li>• What are the properties of wool that make it a good material for keeping out rain?</li> <li>• How does the wool keep the sheep dry?</li> <li>• Are different types of material more or less waterproof than wool.</li> </ul> <p>KS2 Activity 3: How do the sound insulating properties of wool compare with other fabrics?</p> <p>In this investigation the children can ask a question related to the sound insulating properties of wool.</p> <p>Using prompts such as question starters, the children can then set up their investigation: Which ...? What...? How does ....?</p> <p>Provide a range of resources such as: dB reader (data logger) or decibel meter, range of fabrics, alarm clock, bell / buzzer, or mobile phone.</p>



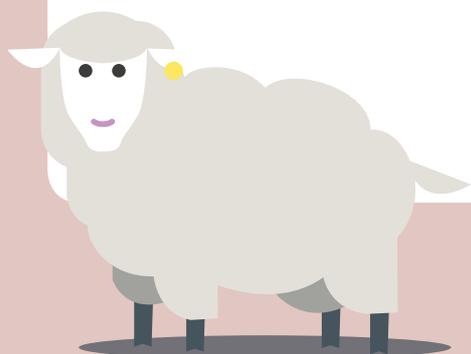
Summary of the lesson overview:

## Resources:

- PowerPoint presentation
- Investigation templates
- Pupil investigation sheets
- Range of fabrics including wool
- Data loggers and /or thermometers
- Containers such as beakers, or jacket potatoes
- Pipettes and measuring cylinders
- Funnels
- Bell / buzzer, mobile phone or alarm clock
- Sorting circles
- Elastic bands

These notes also appear on the PowerPoint 'notes' pages.

Slide 1:	Landing slide
Slide 2:	<p>What is an insulator?</p> <p>Examples of how we use insulating properties to help us in day to day life.</p> <p>Materials that are poor conductors of thermal energy are called thermal insulators. Thermal insulators are used to prevent the flow of heat moving from one place to another. Thermal insulators are used to keep our homes warm inside when there are cooler temperatures outside. A common type of thermal insulator is fibreglass, but other forms of plastic sheets or natural materials such as wool are also used. There are three main ways in which heat can travel: convection, conduction, and radiation. Typically, the phrase 'thermal insulator' refers to a material that blocks heat conduction. Polystyrene is a very good thermal insulator and efficiently keeps cool things cool and hot things hot. Metals are very good thermal conductors.</p>
Slide 3:	Investigation task overview and guidance.
Slide 4:	<p>How to use a data logger (KS2) - support.</p> <p>Using the scales on a thermometer (KS1) - support.</p>



Slide 5:

How might we set up this investigation? Ways to sort.

Outline ideas for modelling an investigation - grouping, classifying and identifying.

Which materials are the most suitable for clothes?

Some children are being asked to wear new school uniforms made from some strange materials. Some of them look rather uncomfortable!

Questions to pose to the children:

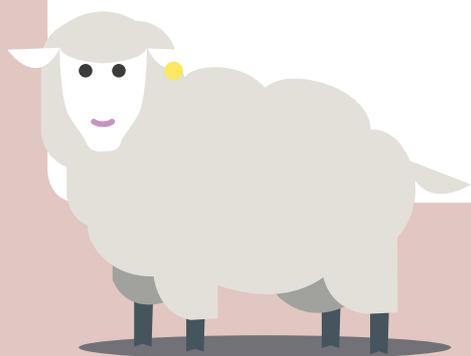
- What materials do you think your clothes are made from?
- How could you find out?
- Where would you look?
- Are any of them made from natural materials or are they all man made materials?
- Can you sort the materials that your teacher has given you into man-made and natural fabrics?
- Which is the biggest group?
- What are your natural fabrics made from?

Some fabrics are made from cotton, which comes from a cotton plant, others are made from silk, which is naturally made by a silkworm and the one which we are going to study for our project is wool, which comes from sheep.

Discuss with the children ways to investigate the various questions and how to show what you have found out, such as sorting and grouping materials according to criteria e.g. man-made or natural, waterproof or soft – some of these classifying and grouping activities may require the understanding of Venn diagrams. Encourage the children to consider criteria they decide, rather than setting criteria for them.

Look at these images and discuss with your partner what would be the advantages and disadvantages of each. These images will stimulate discussion about the properties of different materials.

You need to carry out a range of investigations so that you can decide which is going to be the most suitable material for your new school uniform.



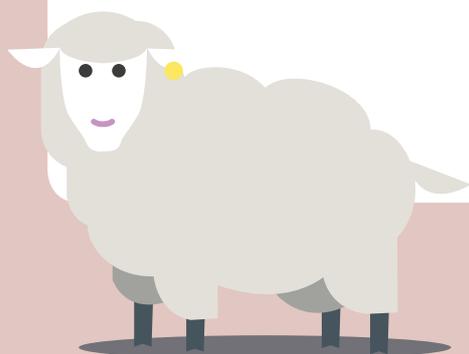
Slide 6:

Look at these images and discuss with your partner what would be the advantages and disadvantages of each. (You could find some more to compare to.) These images will stimulate discussion about the properties of different materials.

Discuss with the children ways to investigate the various questions and how to show what you have found out, such as sorting and grouping materials according to criteria e.g. man-made or natural, waterproof or soft – some of these classifying and grouping activities may require the understanding of Venn diagrams.

Questions to pose to the children to stimulate discussion around potential investigations:

- What investigations could we do?
- What material is that?
- What is it called?
- What is it made from?
- What does it look like?
- How does it feel?
- Why do you think that material was used to make that item?
- What properties does it have that make it suitable?
- Which material is the softest?
- Which material allows you to stretch it the most?
- Is one material stronger than another?
- Can you twist some of the materials more easily than others?
- Can you think of any other comparative tests that you could carry out on the materials?



Slide 7:

How do the insulation properties of wool compare with other fabrics?

Outline ideas for modelling an investigation: a fair test for KS2, but a simple comparative test for KS1.

Questions you could ask:

- What is an insulator?
- When have we used the word insulator before? (They may recognise it as an electrical insulator so make sure that you make it clear that is not an electrical insulator that you are talking about, but a thermal insulator.)
- Do you think wool is a good insulator? Why?
- How could you test how good wool is at keeping things warm?
- What other materials could you compare it to?
- Which scientific method will we use to carry out this test?
- How will you make it a fair test?
- Can the pupils come up with a way of testing the insulating properties of wool?
- What predictions can the pupils make? Remind them to draw on previous knowledge from real life situations to explain the reason for their predictions.

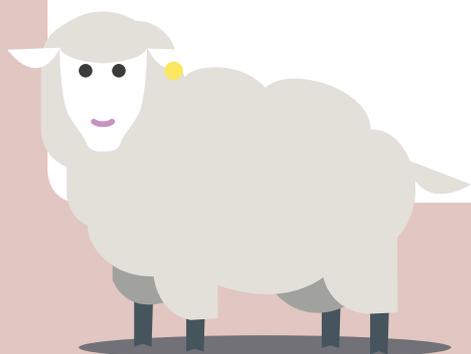
Questions to pose to the children to stimulate discussion around potential investigations:

- What investigations could we do?
- What will our actual question be?
- How will we carry this out?
- Are there safety considerations?
- What equipment could we use to make our recording more accurate?
- What method will we use for setting this investigation up?

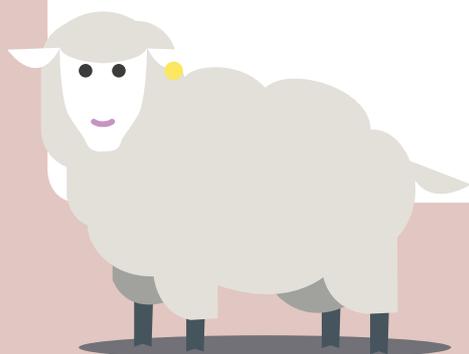
Depending on the working scientific ability of your children, you may allow them to design an investigation method rather than using the sample one given here.

- Wrap four beakers in different materials (e.g. knitted wool, felted wool, cotton, nylon, acrylic).
- Put the same amount of hot water in each beaker and leave them in the same place.
- Measure the starting temperature of each and place a lid on each.
- After a set time interval (such as every five minutes) measure the temperature of the water in each beaker with a thermometer or data logger.
- Record and discuss your findings.

Safety: The water temperature for the insulation investigation must not exceed 50°C (see CLEAPSS publication *P004: Safe heating for primary science* or the ASE publication, *Be Safe*).



<p>Slide 8:</p>	<p>How do the waterproof properties of wool compare with other fabrics?</p> <p>How might we set up this investigation?</p> <p>Outline ideas for modelling an investigation: a fair test for KS2, but a simple comparative test for KS1.</p> <p>Questions to pose to the children:</p> <ul style="list-style-type: none"> <li>• What do you think are the key properties of wool?</li> <li>• Clue: think where sheep live, what they need to survive in their normal habitats and how their fleece might help them.</li> </ul> <p>Children complete product testing planning sheet to plan their ideas.</p> <p>You need to consider how you will plan and carry out this investigation considering the variables/ factors that you can change, measure or keep the same.</p> <p>Questions to pose to the children to stimulate discussion around potential investigations:</p> <ul style="list-style-type: none"> <li>• What investigations could we do?</li> <li>• What will our actual question be?</li> <li>• How will we carry this out?</li> <li>• Are there safety considerations?</li> <li>• What equipment could we use to make our recording more accurate?</li> <li>• What method will we use for setting this investigation up?</li> </ul> <p>Possible KS1 questions to focus observations:</p> <ul style="list-style-type: none"> <li>• What happens to the materials when water is poured on them?</li> <li>• Do they go soggy?</li> <li>• Do they dip or flop in the middle?</li> <li>• How does the fabric behave when the water is dropped onto them?</li> <li>• Do some bend?</li> <li>• Does the fabric fall apart? If so, when? After how long?</li> <li>• Do some still appear dry?</li> </ul>
<p>Slide 9:</p>	<p>How do the sound insulating properties of wool compare with other fabrics?</p> <p>How might we set up this investigation?</p> <p>Outline ideas for modelling an investigation: a fair test for KS2.</p> <p>Felt is made by linking wool fibres together (see felting lessons) and creates a great soundproofing barrier, which is used to deaden the noise and acts to stop vibrations in cars.</p> <p>When do we need ear protectors?</p> <p>Why do we need ear protectors?</p> <p>Who usually wears ear protectors?</p> <p>Have some ear defenders/protectors for them to try on and see if they can tell the difference. Let them use this as a stimulus before they begin to set up and test their own ideas and thoughts.</p>
<p>Slide 10</p>	<p>What do our results look like?</p>



## Stage 2 Lesson Overview

Activity	Time	Overview
1: Presentation	10-15 mins	A presentation to give an overview of craft activities created with wool.
2: Activities	30-60 mins	Wet felting: creating a bookmark or flower.  Weaving: creating a patterned piece of fabric.  Pompoms: making a chick, owl etc.

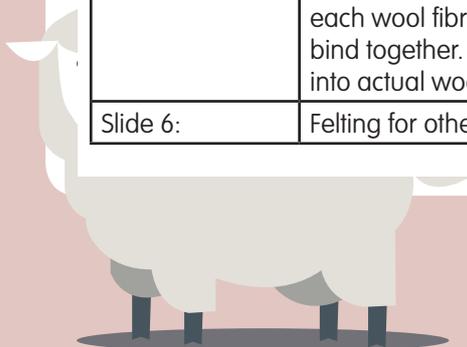
## Stage 2 Presentation Notes

### Resources

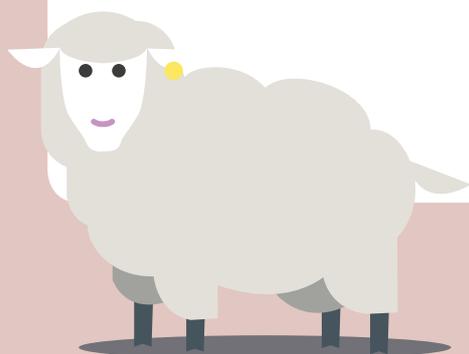
- PowerPoint presentation
- Internet
- Balls of wool for weaving and pompoms
- Wool top for felting (semi-processed wool ready for spinning)
- Soap
- Cardboard
- Craft instruction sheets (teacher)

These notes also appear on the PowerPoint 'notes' pages.

Slide 1:	Landing slide
Slide 3:	Introduction to wool based crafts Wool has many unique qualities as it is a natural sustainable material and offers many environmental benefits that man-made fibres do not have. Wool is flexible, dyed easily, shock absorbent, repels water, is a thermal and sound insulator and decomposes readily compared to synthetic materials.
Slide 4:	Images of different wool based crafts
Slide 5:	Introducing the crafts (wet felting) and how to make them with video links.  Felt is the oldest fabric known to man as there is evidence that it dates back to Turkey in 6500-3000 BC. Roman soldiers used felt for their tunics, boots and socks. Robin Hood was also thought to have worn a green felt tunic when rescuing Maid Marian. It is thought that the reason it was such an early fabric is because it was easy to make, could be made anywhere and so for the nomadic people of the time it was ideal. Wool was always easy to come by, either from sheep or goats, and could be readily dyed using natural plant dyes such those from as onion skins, berries, red cabbage and nettles. Felt has many good properties, some of which you may later investigate. It is easily dyed, flexible, can be shaped, repels water and, like all wool products, keeps you or an object insulated and warm. Felt is created by using soap and water on clean wool, which opens the scales on the outside of each wool fibre and then the action of rubbing and rolling ensures that the individual wool fibres bind together. The process of making felt is irreversible as the felt fabric cannot be changed back into actual wool fibres.
Slide 6:	Felting for other uses



<p>Slide 7:</p>	<p>Introducing the crafts (weaving) and how to make them, with video links.</p> <p>Weaving has been a skill and technique used for around 5000 years. Up until the 19th Century, weaving was carried out on small hand looms in cottages around the countryside using a range of materials including wool. The threads that come down are called the warp and the threads that run across are called weft. The weft threads go over and under each warp thread to create a woven fabric. With the Industrial Revolution and the introduction of steam and water driven looms, huge mill factories were built in cities such as Bradford and Manchester where fabric could be mass produced in large quantities.</p> <p>Some weaving is very intricate and is often classed as a tapestr. There are a number of famous tapestries that depict stories, such as the famous Bayeux Tapestry. The Bayeux Tapestry is an embroidered cloth nearly 70 metres long and 50 centimetres tall, which depicts the events leading up to the Norman conquest of England in 1066, concerning William, Duke of Normandy, and Harold, Earl of Wessex, later King of England, and culminating in the Battle of Hastings.</p> <p><a href="https://www.bayeuxmuseum.com/en/the-bayeux-tapestry/">https://www.bayeuxmuseum.com/en/the-bayeux-tapestry/</a></p> <p>Possible video links, Weaving video mass scale <a href="http://www.campaignforwool.org/2019/02/27/woven-in-time/">http://www.campaignforwool.org/2019/02/27/woven-in-time/</a></p> <p>Weaving on cardboard loom <a href="https://www.youtube.com/watch?v=QW2zwr6txdo">https://www.youtube.com/watch?v=QW2zwr6txdo</a></p> <p>Making a loom <a href="https://www.youtube.com/watch?v=jSjFF_5Nm0k">https://www.youtube.com/watch?v=jSjFF_5Nm0k</a> – ready made loom</p>
<p>Slide 8:</p>	<p>Introducing the crafts (pom pom) and how to make them, with video links</p> <p>The pompom origin can be traced back to Scandinavia from the age of the Vikings (800 - 1066). The Viking god, Freyr, is thought to be depicted wearing a hat or helmet bearing a pompom in a statuette that was discovered.</p> <p>Once again, there is a link with France because Napoleon's army wore pompoms on their uniform caps. The colour or shape of the pompom signified which regiment the soldier belonged to and his rank.</p> <p>In South America, traditional garments of both men and women were decorated with differently coloured pompoms as a signal of their marital status.</p> <p>In Scotland, pompoms were a part of traditional dress; men wore a floppy beret called a Balmoral bonnet that had a bright red pompom on the top known as a toorie. You can still see these today if you visit any tourist shop in Scotland or attend the Highland Games.</p> <p>If you are wanting to try a variety of different methods to create pompoms watch this: <a href="https://www.youtube.com/watch?v=RDahuw179K8">https://www.youtube.com/watch?v=RDahuw179K8</a></p>
<p>Slide 9:</p>	<p>Possibly retest the crafts using the investigations above.</p>



## Stage 3 Lesson Overview

Activity	Time	Overview
1: Presentation	10-15 mins	A presentation to explain the task: to develop and evaluate a wonder wool product.
2: Activities	20-90 mins	<p>Activity 1: Complete a product development planning sheet.</p> <p>Activity 2: Test out the new product using the investigation ideas in lesson 1.</p> <p>Activity 3: Evaluating, improving and documenting the new product.</p> <p>Remember to complete the competition entry after you have done the product development sheet.</p>

## Stage 3 Presentation Notes

### Resources

- PowerPoint presentation
- Internet
- Product template sheets – wool designs

These notes also appear on the PowerPoint 'notes' pages.

Slide 1:	Landing slide
Slide 2:	<p>How does wool compare to other materials tested - synthetic / man-made / natural etc? Rate it against the other materials.</p> <p>Why use wool? Video links about the wool vs. synthetic argument and plastic pollution:  <a href="http://www.campaignforwool.org/2019/04/18/choose-the-world-choose-wool/">http://www.campaignforwool.org/2019/04/18/choose-the-world-choose-wool/</a></p>
Slide 3:	<p>Environmental facts.</p> <p>Wool has inherent natural properties that benefit the planet in many ways. Following many Sir David Attenborough productions, including <i>The Blue Planet</i>, we are all aware that the planet is choking from waste plastic and man-made fibres that are being discarded in the oceans and on land.</p> <p>Man-made, synthetic or plastic fibres are all oil-based products that do not biodegrade and have a high environmental impact on the planet, yet few people realise that wool could be the answer to many of these problems.</p> <p>There is a campaign running to promote the use of wool and its environmental benefits in lots of ways: <a href="http://www.campaignforwool.org/">http://www.campaignforwool.org/</a></p> <p>It has been known for decades that wool biodegrades in soil, adding nutrients. However, more recent studies have shown that wool also biodegrades in the ocean and water, and so does not impact the planet with microfibre and plastic pollution. An estimated 35% of primary microplastics entering our oceans are released through washing fabrics.</p> <p>Around 60% of all clothing produced is synthetic.</p> <p>Half a million tonnes of plastic microfibres a year contribute to ocean pollution: Watch these videos <a href="https://www.youtube.com/watch?time_continue=60&amp;v=y6JllqHGbQ0">https://www.youtube.com/watch?time_continue=60&amp;v=y6JllqHGbQ0</a> / <a href="https://www.youtube.com/watch?v=BqkekY5t7KY">https://www.youtube.com/watch?v=BqkekY5t7KY</a></p>

Slide 4:	<p>Positives and negatives of each craft technique.</p> <ul style="list-style-type: none"> <li>• Which wool based design and technology technique would be most useful for creating a product?</li> <li>• Why?</li> <li>• How could you adapt or change the technique to make it more useful for your product?</li> </ul>
Slide 5:	<p>Outlining the task.</p> <p>Can you design a product that uses the properties of wonder wool to keep you dry and warm?</p>
Slide 6:	<p>Product development template / discussion.</p> <p>Using all these facts, investigation results and your own creativity complete your product development sheet.</p> <p>See design, make and evaluate sheets.</p>

## Stage 4 Lesson Overview

Activity	Time	Overview
1: Presentation	10-15 mins	A presentation to explain the task: Marketing a unique clothing product using wool the wonder fabric as the main material.
2: Activities	40-80 mins	Use the investigation conclusions and information from research (links provided) about the eco properties of wool to create an advert to promote the wool wonder product. (Example links provided).

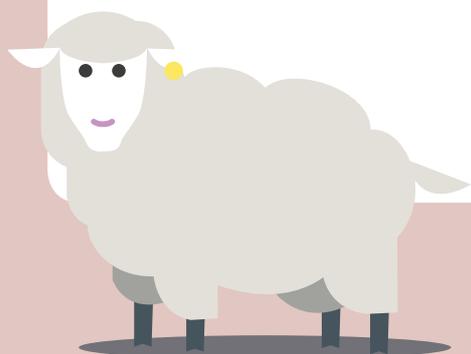
## Stage 4 Presentation Notes

### Resources

- PowerPoint presentation
- Internet
- Laptops
- Video equipment / tablets
- Features of persuasive writing

These notes also appear on the PowerPoint 'notes' pages.

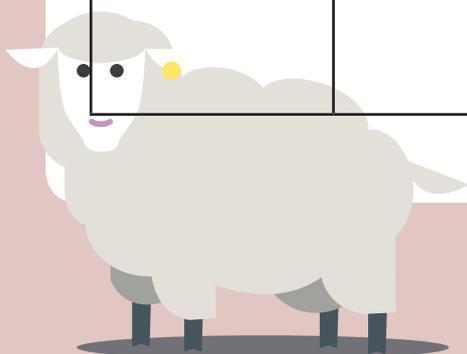
Slide 1:	Landing slide
Slide 2:	What is marketing?



Slide 3:	<p>Discuss their explanations and challenge children to write a detailed explanation for how effective wool is as a material for a coat / gloves / hat etc. Then use this as a starting point for persuasive writing for the new wonder wool products.</p> <p>Discuss features of persuasive writing and challenge children to write a persuasive advert or speech that explains how their product solves a problem and why it should win.</p> <p>Features of persuasive writing. See <a href="https://www.youtube.com/watch?v=Et41VFFgdxc">https://www.youtube.com/watch?v=Et41VFFgdxc</a> for ideas of simple adverts that are very persuasive.</p> <p>Features of persuasive adverts for clothing etc.</p>
Slide 4:	<p>If you want to link into the English curriculum more, KS1 children could write instructions for how to make a flower.</p> <p>Your findings and research could be presented as a speech video, PowerPoint, radio / TV / magazine / stop motion advert, persuasive letter etc.</p>
Slide 5:	Key features of a good presentation.
Slide 6:	Effects and fonts.
Slide 7:	What is advertising?
Slide 8:	Features of a good advert.
Slide 9:	Activity overview.

## Possible links to the national curriculum:

Key Stage/ Subject	Topic	National Curriculum statements
KS1 Science	Yr1 Everyday materials	<ul style="list-style-type: none"> <li>distinguish between an object and the material from which it is made</li> <li>identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>describe the simple physical properties of a variety of everyday materials</li> <li>compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>
	Yr1 Animals including humans	<ul style="list-style-type: none"> <li>identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> </ul>
	Yr2 Uses of everyday materials	<ul style="list-style-type: none"> <li>identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul>
	Working scientifically	<ul style="list-style-type: none"> <li>asking simple questions and recognising that they can be answered in different ways</li> <li>observing closely, using simple equipment</li> <li>performing simple tests</li> <li>identifying and classifying</li> <li>using their observations and ideas to suggest answers to questions</li> <li>gathering and recording data to help in answering questions.</li> </ul>



KS1 Design and Technology	<p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</li> <li>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</li> <li>explore and evaluate a range of existing products</li> <li>evaluate their ideas and products against design criteria.</li> </ul>
LKS2 Science	Yr 4 Sound	<ul style="list-style-type: none"> <li>identify how sounds are made, associating some of them with something vibrating</li> <li>recognise that vibrations from sounds travel through a medium to the ear.</li> </ul>
	LKS2 Working scientifically	<ul style="list-style-type: none"> <li>asking relevant questions and using different types of scientific enquiries to answer them</li> <li>setting up simple practical enquiries, comparative and fair tests</li> <li>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>using straightforward scientific evidence to answer questions or to support their findings.</li> </ul>
UKS2 Science	Properties and changes of materials	<ul style="list-style-type: none"> <li>compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</li> <li>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</li> </ul>



	UKS2 Working scientifically	<ul style="list-style-type: none"> <li>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>using test results to make predictions to set up further comparative and fair tests</li> <li>reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>identifying scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>
KS2 Design and Technology	Design	<ul style="list-style-type: none"> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> </ul>
	Make	<ul style="list-style-type: none"> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li> <li>select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</li> </ul>
	Evaluate	<ul style="list-style-type: none"> <li>investigate and analyse a range of existing products</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>understand how key events and individuals in design and technology have helped shape the world.</li> </ul>
Language and literacy	Section 6.3 Reading and Writing:	<ul style="list-style-type: none"> <li>The writing they [pupils] do should include narratives, explanations, descriptions, comparisons, summaries and evaluations: such writing supports them in rehearsing, understanding and consolidating what they have heard or read.</li> </ul>

### Useful links:

British wool - [www.britishwoollearning.com](http://www.britishwoollearning.com)

Promoting wool - [www.campaignforwool.org](http://www.campaignforwool.org)

National sheep organisation - <https://www.nationalsheep.org.uk/know-your-sheep/>

