Textiles:
Trash to treasure

Year 6

How can you transform old materials into something new and useful?

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Skills

Core skills

Researching upcycled textile products by analysing how materials are reused, considering user needs and understanding how design can reduce waste and support sustainability

Building technical knowledge by practising stitches, exploring how different textiles behave and learning how to join and reinforce materials to improve strength and durability

Designing a cushion by developing design criteria, selecting recycled materials and planning features that meet a user's needs and purpose

Making a cushion by measuring, cutting and joining textiles accurately, applying techniques to construct a functional and durable product using recycled materials

Evaluating the finished product by testing it against design criteria, considering function, durability and sustainability, and suggesting improvements

Supporting skills

Solving problems creatively by adapting designs, selecting appropriate materials and refining ideas during the making process

Collaborating effectively by supporting others with practical tasks such as pinning, holding fabric, threading needles and checking accuracy, while sharing tools and working safely

Innovating and creating by generating original ideas, adapting designs and using recycled textiles in new and purposeful ways

Communicating clearly by explaining design ideas, justifying material choices and evaluating finished products using appropriate vocabulary

Considering cultures and ethics by understanding the environmental impact of textile waste and making responsible, sustainable choices

Applying mathematics practically by measuring, cutting and working with dimensions to ensure accuracy and fit

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Vocabulary

Lesson 1

	consumption	How much we use or buy.
	industry	A group of businesses that make the same type of product or provide the same service.
	recycle	To turn waste into new materials.
	reduce	To use less of something to avoid waste.
	reuse	To use something again.
	sustainable	Made or used in a way that protects the environment and reduces waste.
	textiles	Materials made from fibres, such as fabric, used to make products.
	upcycle	To reuse old materials to create a better or more useful product.
	waste	Things that are not needed or used and are thrown away.

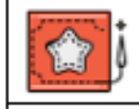
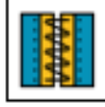
Lesson 2

	attach	To fasten or join something firmly.
	durable	Strong and able to last a long time.
	reinforce	To make something stronger.
	seam	The line where two pieces of fabric are sewn together.
	structure	How something is put together so it stays strong.

Lesson 3

	adapt	To change something to improve it or make it more sustainable.
	design criteria	A list of rules a product must have or must be able to do.
	embellish	To add extra decoration to make something more attractive.
	function	The job or purpose of a product.
	personalise	To make something suitable for a specific user.
	repurpose	To use something again in a new way.
	user	The person who will use the product you are designing.
	durable	Strong and able to last a long time.
	sustainable	Using materials in a way that is better for the environment.

Lesson 4

	attach	To fasten or join something firmly.
	reinforce	To make something stronger.
	adapt	To change something to improve it or make it more suitable.
	applique	A technique where fabric shapes are sewn or attached onto another piece of fabric.
	fray	When the edges of fabric start to come apart into threads.
	seam	Where two pieces of fabric are joined together.

Lesson 5

	durable	Strong and long-lasting.
	function	The job or purpose of a product.
	repurpose	To use something in a new way.
	sustainable	Using materials in a way that is better for the environment.
	upcycle	To reuse old materials to create a better or more useful product.
	user	The person who will use a product.

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I Now Know...

1
- Turning old products into a different, more useful product is called upcycling.

2
- Backstitch creates a strong, secure line.
- Smaller, even stitches usually create a stronger and neater result, while large uneven stitches can make the product weaker and less tidy.

3
- Annotated diagrams clearly explain ideas, including materials, stitches and how the design meets the user's needs.

4
- The seam allowance leaves space for sewing so the fabric does not come apart.

5
- Testing a product allows us to check how well it works and find improvements.
- To support sustainability you can use recycled fabric and reinforce the seams.

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Links

Previous Learning	Future Learning
KS1 -Explore textiles by cutting, layering and joining fabrics to create simple collages. -Basic sewing techniques, including threading needles and simple stitches. **Lower KS2** -Design and make more complex textile products using templates and a wider range of stitches. -Develop ability to join and reinforce materials, improving strength, durability and function. **Year 5** -Using techniques such as applique and decorative stitching. -Focus on improving the quality of products, balancing function and appearance and beginning to consider aesthetics and sustainability.	**KS3** -Build understanding of textiles and sustainability to design and make more complex products for a range of users. -Develop detailed specifications, use more advanced tools and materials with precision. -Test and refine their ideas, considering needs and environmental impact.

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Learning Objectives

Lesson 1: How are materials reused in the textiles industry? LO: I can explore how textiles are recycled and upcycled and explain why this is important.	Researching
I can describe the properties of different textiles	
I can group materials based on their characteristics	
I can explain how a material's properties affect how it can be used	
I can suggest how a material could be reused or upcycled	
I can justify my ideas using clear reasoning	

Lesson 2: How can sewing techniques be used to make a textile product strong and durable? LO: I can practise and apply stitches to join, strengthen and decorate textiles.	Technical knowledge
I can use running stitch and backstitch to join fabric	
I can create neat, even and secure stitches	
I can use different stitches for different purposes	
I can explain how stitches affect strength and durability	
I can describe how my technique affects the appearance of my work	

Lesson 3: How can we design a textile product that meets a user's need? LO: I can design a cushion using recycled textiles that meet a user's needs.	Designing
I can identify a user and explain their needs	
I can create a design criterion for my product	
I can design a cushion that meets it function	
I can choose suitable recycled materials for my design	
I can label and annotate my design to explain my ideas	
I can explain how my design will be strong and durable	

Lesson 4: How can we create a high-quality textile product? LO: I can construct my cushion accurately using appropriate tools and techniques.	Making
I can follow a sequence of steps to make a textile product safely	
I can join fabric pieces securely using appropriate stitches	
I can apply applique to create a design	
I can measure and maintain a consistent seam allowance	
I can work carefully to create a strong and durable product	

Lesson 5: What makes a textile product successful and sustainable? LO: I can evaluate and improve my cushion by testing how well it meets design criteria and user needs.	Evaluating
I can test my product to check how well it works	
I can identify areas to improve my product	
I can make simple improvements to strengthen my product	
I can evaluate my product against my design criteria	
I can explain how my product meets the needs of the user	
I can describe how I have used recycled materials	
I can suggest improvements to make my product more sustainable	

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Post Assessment

Why can fast fashion be harmful to the environment? Write your answer below.



_____

_____

_____

Which statement best explains upcycling? Circle your answer.

a. throwing old materials away and replacing them

b. reusing materials creatively to make something more useful or valuable

c. using only brand-new materials in a design

Tick all the features of a successful sustainable textile product.

- ☐ durable and long-lasting
- ☐ suitable for the user
- ☐ thoughtful use of recycled materials
- ☐ weak seams that can be repaired later
- ☐ secure stitching and strong construction

Explain below why durable products are often more sustainable.



_____

_____

Which design criteria would be MOST important for a cushion designed for a younger child? Circle your answer.

a. delicate decoration and tiny beads

b. dark colours and rough texture

c. strong seams and comfortable fabric

Explain below why designers should think carefully about the user when designing a textile product.



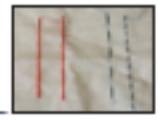
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_____

Match the stitch to its description by drawing a line between the two.

running stitch	creates strong, durable seams
backstitch	used to attach appliqué shapes securely
overstitch	simple stitch for seams and decoration

Why might a designer choose backstitch instead of running stitch for a seam? Write your answer below.



_____

_____

_____

Put the following steps in the correct order (1–6).

- add the cushion filling ☐
- sew the cushion pieces together ☐
- cut out appliqué shapes ☐
- attach appliqué to the fabric ☐
- turn the cushion the right way around ☐
- prepare the fabric pieces ☐

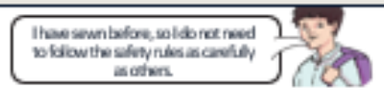
Complete the missing words in the sentence below. Use the word bank to help you.

Designers check their work against the design _____ to help create products that are functional, durable and _____.

Word bank

user criteria sustainable brief

Is Jamie correct? Explain your answer below.



_____

_____

_____

Is the following statement true or false? Write your answer below.



Testing and evaluation should only happen when the product is finished.

_____

Which feedback would be useful for improving the product? Tick all that apply.

- ☐ "The design suits the user well."
- ☐ "Improving the overstitching would help secure the appliqué more effectively."
- ☐ "The cushion is neat and comfortable."
- ☐ "The opening could be strengthened to stop filling falling out."

Name two improvements you could make to a cushion after testing it.

1. _____

_____

2. _____