

Animal shelters

Challenge:

To make an animal shelter for a garden dwelling creature

Prior Knowledge

1	Children in Year 3 have worked with wood – measuring with a ruler, clamping with a vice before cutting to length with a hacksaw. The pieces are then glued together to make a picture frame.
2	Health and safety aspects of using a hacksaw, ruler, vice and glue.
3	Manipulating materials such as fabric, wood, card, glue and tape.

The Journey

Technical Knowledge	Design	Make	Evaluate
<p>What is a join?</p> <p>A join is when 2 pieces of material are joined together in a fixed position.</p> <p>To join 2 pieces of material together an adhesive will need to be used.</p> <p>How can we join materials together?</p> <p>Joining materials can take the form of: Gluing, Sticking, Compressing, Taping, Binding, Etc.</p>	<ol style="list-style-type: none"> Clearly understand the criteria for the project Explore a range of existing products Explore examples of joins Draft design of an animal shelter COMPLETE SKILLS PRACTICE Revisit design and adapt to create a final group design with jottings of materials needed and joins to use Create a detailed resource list of materials needed for the final design. 	<p><u>Skills Practice</u></p> <ul style="list-style-type: none"> Using cardboard make a simple join Use different adhesives to join 2 pieces of cardboard together Using chosen material accurately join them together so they are secure 	<p><u>Before Making</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. Evaluate learning from skills practice and use this to adapt the final design.
		<ol style="list-style-type: none"> Use the design to build the basic structure for the challenge. Adapt the design to make more imaginative and relevant to a real life scenario. Evaluate and improve the design. 	<p><u>After Making</u></p> <ul style="list-style-type: none"> Use the final design as a shelter in the garden. How successful will it be?

Key Vocabulary

Join – unite to form one group

Material – matter from which a thing can be made

Animal shelter – where an animal can shelter and nest e.g. bird box, hedgehog house, bee box, bug hotel

Plogging

Challenge:

To make a litter picker to use whilst Plogging in the park i.e. picking up litter whilst exercising.

Prior Knowledge

1	Children in Year 3 have worked with wood – measuring with a ruler, clamping with a vice before cutting to length with a hacksaw. The pieces are then glued together to make a picture frame.
2	Health and safety aspects of using a hacksaw, ruler, vice and glue.
3	Manipulating materials such as fabric, wood, card, glue and tape.

The Journey

Technical Knowledge	Design	Make	Evaluate
<p>What is a claw?</p> <p>A claw grabs, or picks up another object and is often made of metal, plastic or wood.</p> <p>To use a claw, you provide effort and the claw closes to grab the object.</p> <p>What is direct force?</p> <p>A direct force is when one object touches another and makes direct contact.</p> <p>How can we join materials together?</p> <p>Joining materials can take the form of: Gluing, Sticking, Compressing, Taping, Binding, Etc.</p>	<p>8. Clearly understand the criteria for the project</p> <p>9. Explore a range of existing products</p> <p>10. Explore examples of claws</p> <p>11. Draft design of how a claw can pick up a piece of litter</p> <p>12. COMPLETE SKILLS PRACTICE</p> <p>13. Revisit design and adapt to create a final group design with jottings of materials needed and mechanisms to use</p> <p>14. Create a detailed resource list of materials needed for the final design.</p>	<p><u>Skills Practice</u></p> <ul style="list-style-type: none"> Using cardboard make a simple claw design Using plastic adapt the first design and improve it. Using chosen material accurately make a claw which will hold the weight of a larger piece of rubbish <p>4. Use the design to build the basic structure for the challenge.</p> <p>5. Adapt the design to make more imaginative and relevant to a real life scenario.</p> <p>6. Evaluate and improve the design.</p>	<p><u>Before Making</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. Evaluate learning from skills practice and use this to adapt the final design. <p><u>After Making</u></p> <ul style="list-style-type: none"> Use the final design to pick litter whilst Plogging in the park. How successful will it be?

Key Vocabulary

Plogging – picking litter whilst exercising

Claw – a mechanism that closes to pick up another object

Direct force – when one object touches another and makes direct contact

Material – matter from which a thing can be made

Anglo-Saxon Musical Instruments

Challenge:

To make an Anglo-Saxon musical instrument.

Prior Knowledge

1	Children in Year 3 have worked with wood – measuring with a ruler, clamping with a vice before cutting to length with a hacksaw. The pieces are then glued together to make a picture frame.
2	Health and safety aspects of using a hacksaw, ruler, vice and glue.
3	Manipulating materials such as fabric, wood, card, glue and tape.

The Journey

Technical Knowledge	Design	Make	Evaluate
<p>How can sound be made?</p> <p>Sound can be made by causing vibrations. Elastic bands or string could be plucked, a stretched skin could be hit, a tubular model could be blown</p> <p>What Anglo-Saxon instruments were there?</p> <p>Examples of Anglo-Saxon musical instruments were: Lyre, panpipes, horn, harp, Rebec, drum</p> <p>How can we join materials together?</p> <p>Joining materials can take the form of: Gluing, Sticking, Compressing, Taping, Binding, Etc.</p>	<p>Clearly understand the criteria for the project</p> <p>Explore a range of existing products</p> <p>Draft design of how their instrument will make music</p> <p>COMPLETE SKILLS PRACTICE</p> <p>Revisit design and adapt to create a final group design with jottings of materials needed</p> <p>Create a detailed resource list of materials needed for the final design.</p>	<p><u>Skills Practice</u></p> <ul style="list-style-type: none"> Using elastic bands and string make strings to be plucked Using a balloon or material stretch and secure it to make a drum skin Using a tubular model make holes in it to make a noise when blown through <p>Use the design to build the basic structure for the challenge.</p> <p>Adapt the design to make more imaginative and relevant to a real life scenario.</p> <p>Evaluate and improve the design.</p>	<p><u>Before Making</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. Evaluate learning from skills practice and use this to adapt the final design. <p><u>After Making</u></p> <ul style="list-style-type: none"> Use the final design to make music. How successful will it be?

Key Vocabulary

Anglo-Saxon musical instruments:

Lyre – like a small harp

Rebec – an early violin

Words related to sound – pluck, vibrations, blow, stretch, tubular