Year 6

Design Technology: Construction

Learning to Recap:

- Know that a saw is used to cut wood
- Know that a saw uses a sawing motion which moved backwards and forwards
- Know that we measure length using a ruler
- Know that we can strengthen structures in a variety of ways.

1. Morrison Shelters

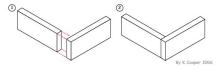
- Know that a Morrison shelter was strong and sturdy and built to protect people from falling debris in the Blitz: The History Press | Shelter at home in the Second World War
- Know that a Morrison shelter was sometimes referred to as a table shelter and looked like a cage.
- Know how a Morrison shelter was assembled

2. Sawing

- Know that a hacksaw has a short blade and is used to cut wood in straight lines
- Know that a bench hook is a 'stop' support which is used to help working on a bench or table – it helps to hold wood in place
- Know that a try square is used to mark right angles on wood
- Know how to measure and mark a line for cutting on wood using a ruler and try square
- Know how to safely handle and use a saw
- Know how to saw a straight cut

3. Joints

- Know that a joint is where two edges meet (often at right angles)
- Know that a butt joint is a simple joint where two pieces meet at right angles



- Know that other types of joint exist including the mitre joint and the dowel joint
- Know that most simple joints can be attached using glue
- Know that joints can be strengthened by using triangles over the former or lengths of wood within the corner

4. Strengthening Joints

- Know that another way to strengthen a joint is to use additional components.
- Know that components include nails and screws
- Know that a dovetailed nails can strengthen a joint
- Know that screws can strengthen a joint
- Know that screws require a pilot hole
- Know that a hammer is used to tap in nails
- Know that a screwdriver is used to screw in a screw
- Know how to tap in a nail with a hammer
- Know how to screw in a screw with a screwdriver

5. Design

The Imperial War Museum at Duxford has a new exhibition about life during the Blitz as part of this exhibition they plan to reproduce an actual size Morrison Shelter. They have asked school children to attempt to produce a scaled down version and provide them with instructions/top tips for the build.

Design a miniature Morrison Shelter after testing ways to join and strength wood.

6. End of Unit Outcome and Evaluation

Design, make and evaluate a miniature Morrison shelter using your design from last week

- Cut square section wood to size
- 2. Join wood to produce two rectangular frames
- 3. Join frames to produce a cuboid
- 4. Cut chicken wire to size
- 5. Attach chicken wire to the frame
- 6. Measure and cut a lid and base of the shelter
- 7. Attach the lid and base to the shelter

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Recap: Talk Partners

What is a saw and how to you use it?

How to build a Morrison Shelter:

Recap:

Session 2: Talk Partners: What is a Morrison Shelter

Session 3: Jibber Jabber: How do you safely handle and use a saw?

Session 4: True or False

A butt joint joins edges at 45 ^o	
A butt joint is a fairly weak joint	
A butt joint requires a dowel	

Using a Saw

Draw a diagram to show the apparatus/tools and set up needed to saw a straight cut in a piece of wood.



See the photo pages at the back of this booklet for me using a saw to cut a straight edge, joining wood using a butt joint and strengthening the butt joint using dovetailed nails.

Recap: Butt Joint

Draw a diagram of a butt joint

My Design

Draw a picture of your design including measurements, materials and tools needed.

Recap: Define 'taut'		
	 	

Notes

Use this space to note down any observations or findings from the making/production process. These notes may help with your evaluation.



See the photo pages at the back of this booklet for images of me making my woven bag.

Evaluation

Are you pleased with the appearance of your bag? Does it look like your design?	
Does your product function as a bag?	
What are the best features of your product? What has worked well?	
What could be improved about your product? What didn't worked well during the production?	

Weaving Assessment

	You	Teacher
I can independently weave using plain weave		
I can independently weave using twill weave		
I can independently weave using satin weave		
I can independently create a loom		

Because, But, So - Use all of your learning to prepare your answer to the below statements. Please write your response in your writing book.

The industrial revolution changed how material is woven because...

The industrial revolution changed how material is woven but...

The industrial revolution changed how material is woven so...

How did the industrial revolution effect weaving and fabric production?