

# DT – Year 2 – Autumn 1

## Mechanisms: fairground wheels (4 lessons)

### Textiles: Pouches (lesson 1 and 2)

<p><b>Previous Learning / sticky knowledge</b></p>	<p><u>Year 1 – Mechanisms – wheels and axles:</u>            Explain that wheels move because they are attached to an axle.            Recognise that wheels and axles are used in everyday life, not just in cars.            Identify and explain vehicle design flaws using the correct vocabulary.            Design a vehicle that includes functioning wheels, axles and axle holders.            Make a moving vehicle with working wheels and axles.            Explain what must be changed if there are any operational issues.</p> <p><u>This unit:</u>            Design and label a wheel.            Consider the designs of others and make comments about their practicality or appeal.            Consider the materials, shape, construction and mechanisms of their wheel.            Label their designs.            Build a stable structure with a rotating wheel.            Test and adapt their designs as necessary.            Follow a design plan to make a completed model of the wheel.</p>	<p><u>Year 1 – textiles – puppets:</u>            Join fabrics together using pins, staples or glue.            Design a puppet and use a template.            Join their two puppets’ faces together as one.            Decorate a puppet to match their design.</p> <p><u>This unit:</u>            Sew a running stitch with regular-sized stitches and understand that both ends must be knotted.            Prepare and cut fabric to make a pouch from a template.            Use a running stitch to join the two pieces of fabric together.            Decorate their pouch using the materials provided.</p>	
<b>Curiosity questions</b>	<b>Substantive knowledge</b>	<b>Disciplinary Knowledge</b>	<b>Key Vocabulary</b>
<p>Wk 1 1</p> <p>What is a Ferris Wheel?</p>	<p>To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder.</p>	<p>Designing a wheel. Evaluating different designs.</p>	<p>axle axle holder design design criteria Ferris wheel Ferris wheel pod frame wheel</p>

	<u>Retrieval Practice Questions</u> Last week: Last term: Name a fruit. Last year: What part of a car turns?			
Wk 2	What materials will be suitable for my Ferris wheel?	To know that different materials have different properties and are therefore suitable for different uses. To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder.	Designing a wheel. Selecting appropriate materials based on their properties. Selecting materials according to their characteristics. Evaluating different designs.	stable strong waterproof weak
	<u>Retrieval Practice Questions</u> Last week: name the parts of a Ferris wheel and what they do. Last term: Name a vegetable Last year: picture of junk model. What shapes can they see.			
Wk 3	How can I adapt my work to make a frame and wheel?	To know that different materials have different properties and are therefore suitable for different uses. To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder. To know that it is important to test my design as I go along so that I can solve any problems that may occur.	Selecting a suitable linkage system to produce the desired motions. Designing a wheel. Selecting appropriate materials based on their properties. Selecting materials according to their characteristics. Following a design brief. Evaluating different designs. Testing and adapting a design.	mechanism stable strong test
	<u>Retrieval Practice Questions</u> Last week: Which materials would be good to make a Ferris wheel pods out of? Plastic, cardboard, sponge, pasta, fabric, wood, metal, glass, chocolate. Last term: Name a part of a plant we can eat. Last year: what shape does a wheel need to be and why? Show a square, circle and triangle.			
Wk 4	How can I attach the pods?	To know that different materials have different properties and are therefore suitable for different uses. To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder. To know that it is important to test my design as I go along so that I can solve any problems that may occur.	Selecting a suitable linkage system to produce the desired motions. Designing a wheel. Selecting appropriate materials based on their properties. Selecting materials according to their characteristics.	decorate evaluation test

			Following a design brief. Evaluating different designs. Testing and adapting a design.	
<u>Retrieval Practice Questions</u> Last week: think about 5 things you can remember about Ferris wheels from the last lesson. Once you have thought of 5, tell your partner and then give them a high 5! Last term: What do I use to cut fruit? Last year: what is a lever?				
Wk 5	How can I join fabric?	Threading a needle. Sewing running stitch, with evenly spaced, neat, even stitches to join fabric.	To know that sewing is a method of joining fabric. To know that different stitches can be used when sewing. To understand the importance of tying a knot after sewing the final stitch. To know that a thimble can be used to protect my fingers when sewing.	Fabric Knot Needle Needle threader Running stitch Sew Thread
<u>Retrieval Practice Questions</u> Last week: What makes a Ferris wheel turn? Last term: picture of a car. Name the parts of a car. Last year: How do I join material?				
Wk 6	How is a template used?	Designing a pouch. Selecting and cutting fabrics for sewing. Neatly pinning and cutting fabric using a template. Troubleshooting scenarios posed by teacher.	To know that sewing is a method of joining fabric. To know that different stitches can be used when sewing. To understand the importance of tying a knot after sewing the final stitch. To know that a thimble can be used to protect my fingers when sewing.	Fabric Knot Needle Needle threader Running stitch Sew Template Thread
<u>Retrieval Practice Questions</u> Last week: show a needle, thread, scissors and thread. Name the different items and discuss how they are used. Last term: How can I make a lever turn? Last year: what is a template?				

	WOW Experience Days	<ul style="list-style-type: none"><li>•</li></ul>	
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