

TERM: Autumn 2		YEAR GROUP: Year 2		SUBJECT: D&T- Mechanisms - fairground wheel
WEEK 1 DATE: WB 5.11.24	WEEK 2 DATE: WB 11.11.24	WEEK 3 DATE: WB 18.11.24	WEEK 4 DATE: WB 25.11.24	WEEK 5 DATE: 2.12.24
<p>LO: To explore wheel mechanisms and design a fairground wheel</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> I can describe how axles help wheels to move a vehicle I can evaluate different designs. I can design a label a working wheel. <p>Main event: display selection of wheels - ch have whiteboards and draw each item - show how wheels work and how the object moves to recap prior learning.</p> <p>Show the video link let's get rolling physics for kids display presentation wheels and axle images</p>	<p>paper plates straws lolly sticks, straws, cocktail sticks, cardboard, split pins, cotton reels, paper straws, egg cartons and yoghurt pots (a selection per table).</p> <p>LO: To celebrate materials with appropriate properties</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> Why can't describe the properties of different materials I can select appropriate materials for my wheel I can build a wheel on an axle <p>Main event: Presentation of properties of materials which of these properties may be useful for a fairground wheel? Where on the fairground we will each of the properties be needed?</p>	<p>LO: to build and test a moving wheel</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> I can build a stable structure I can test elements of my design I can adapt adapt my design as necessary I can make the wheel rotate <p>Main event: Explain to the class that you have had a telephone call from the class to build a fairground wheel models at the American decide which wants to pick hand out the wheel design sheets children design think about their design criteria stable frame allow children to choose a piece of food packaging to represent the frame of the fairground s wheel design reminder that there will need to rotate</p>	<p>Material for decoration.</p> <p>LO: To conduct a simple survey together opinions</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> I can call that a survey is used to find out what people like I can tally results. I can use my results to inform the design. <p>Main event: Display presentations surveying the residents read through suggested questions as a class and discuss some of the answers What colour should the wheel be? How should the wheel be decorated ? what material should the wheel be made from?</p>	<p>LO: To finish an evaluate A structure with rotating wheel</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> I can add pods for the correct number of people Why can't ensure that my pods stay upright when rotating around a fixed point I can explain my decisions for the pod design I can evaluate a wheel mechanism and adapt it as necessary. <p>Main event: Presentation . building a simple fairground wheel. Children make pods children decorate fairground wheels they have to finish creating their pods they decorate the frame using paint cans or by sticking on</p>

MEDIUM TERM PLAN

<p>Show presentation fairground</p> <p>children design wheel.</p> <p>Support: Ch to draw pictures Label of ideas. Refer to your knowledge organiser when designing fairground wheel use activity sheet for wheel design mixed ability pairs</p> <p>Challenge: Encourage to refer to the design of wheels axles and actual holders when justifying offering alternatives they'll find in Solutions should justify their choices for each aspect of their design including materials and shapes.</p>	<p>Children design their background wheel and decide what material they will use. Children make the wheel and axle.</p> <p>Support: Discuss ideas with a partner and have someone else describe thoughts for them on the design sheet</p> <p>Challenge: explain whether they have a fixed or free axle and just by where why they have chosen it and what material they have chosen and the properties they have</p>	<p>so they should ensure the frame is large enough to wear accommodate the wheel space-side 2 and show the presentation building a simple fairground wheel and how to children to plan allow long enough room for their wheel to spin</p> <p>Support: Talk through their plans before they start may need support with motor skills required for assembly cut the triangle shapes out to begin with and make the grooves for the axle to rest rather than piercing holes be provided with pre-prepared fairground wheel model to guide and inspire own buildings start</p> <p>Challenge: Children should justify the designer construction decisions using their knowledge of stable structures and mechanisms.</p>	<p>Support: Used design surveys support version to help children choose suitable answers</p> <p>Challenge: To come up with their own question and range of answers to serve other class about the fair ground wheel design.</p>	<p>pieces of colored paper or card reminding them to consider how the local area can be celebrated from the discussion and survey results</p> <p>Support: Stick pods directly onto the wheel without using further axles use pod shapes that have already been cut out encouraged to cater for eight people so that they could need four pods</p> <p>Challenge: Explain how they have modified their design throughout the planning and building protests and how they would make further improvement.</p>
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