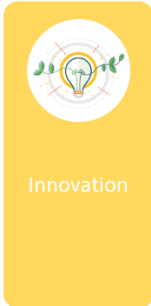




Enriching lives every day; enabling our school community to learn, achieve and flourish through living 'life in all its fullness'



Subject: DT
Year group: 2
Term: Autumn
Unit name: Mechanisms- wheels and axles

- National curriculum:
Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
Make- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

- Prior Knowledge -
Assembled vehicles with moving wheels using construction kits.
Explored moving vehicles through play.
Gained some experience of designing, making and evaluating products for a specified user and purpose.
Developed some cutting, joining and finishing skills with card.

Key vocabulary table with two columns: Vehicle (free, moving, mechanism, names of tools, equipment and materials, used, design, make, evaluate, purpose, user, criteria, functional) and Wheel (free, moving, mechanism, names of tools, equipment and materials, used, design, make, evaluate, purpose, user, criteria, functional)

Spiritual Development
2PE 1:12 Therefore, I will always be ready to remind you of these things, even though you already know them, and have been established in the truth which is present with you.

- Design Process
Investigative and Evaluative Activities (IEAs)
Focused Tasks (FTs)
Design, Make and Evaluate Assignment (DMEA)

Teaching aids		Key Learning- what will the children know by the end of the unit?
<p>Two different ways to fix wheels</p> <p>Types of wheels</p>	<p>Ways to hold moving axles</p> <p>Use pairs of clothes pegs glued with PVA to the underside of a box. Check the peg holes are large enough to allow axles to move freely. Make sure they are aligned carefully so the vehicle moves in a straight line when the wheel and axle mechanism is added.</p> <p>Use card triangles with holes for the axle. Check the holes are large enough to allow the axle to move freely. Make sure opposite triangles are aligned carefully so the vehicle moves in a straight line when the wheel and axle mechanism is added.</p> <p>Use large paper/plastic straws fixed with masking tape to the underside of a box. Check straws are positioned carefully so the vehicle will move in a straight line when the wheel and axle mechanisms are added. Make sure the straw hole is large enough to allow the axle to move freely. The wheels must be fixed tightly to the axle.</p>	<p>To be able to explore and evaluate a range of wheeled products such as toys and everyday objects, focusing on how wheels and axles are used in daily life, the number, size, position and methods of fixing wheels and axles.</p> <p>Children can draw an example of a wheeled product, stating the user and purpose, and labelling the main parts e.g. body, chassis, wheels, axles and axle holders.</p> <p>Using construction kits with wheels and axles, ask children to make a product that moves.</p> <p>Children can identify fixed axles and free axles (can be identified within construction lesson and diagrams)</p> <p>Children are aware of different ways of making axle holders and know about the importance of making sure the axles run freely within the holders. They can join materials and components correctly.</p> <p>To be able to add finishing techniques to their product with reference to their design ideas and criteria- incorporating ICT where possible- clip art, word art etc.</p>