

## Home Learning-Afternoon Activities

Spring Term 1 2021

Subject - DT

Topic -TRANSPORT

Week	Learning Objective	Activity
1	<p><b>DESIGN</b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking and drawing</p> <p><b>MAKE</b> select from and use a range of tools and equipment to perform practical tasks</p>	<p><u><b>Design and build a bridge</b></u></p> <p>Use LM powerpoint to introduce for ease of teaching and for home learning use.</p> <p>Look at pictures of different bridges and discuss whether they are built for Cars, people or trains to use (or a combination!)</p> <p>Discuss bridges that the children might have crossed/used eg Tamar Bridge / rope bridge at Heligan.</p> <p>Challenge children to design a bridge for either a toy car to drive over or a Lego figure to walk over. Can they label it to show their choice of materials?</p> <p>Children build bridge and evaluate it – can they improve it? What would they do differently?</p>
2 - 4	<p><b>EVALUATE</b> evaluate their ideas and products against design criteria</p> <p><b>TECHNICAL KNOWLEDGE</b> build structures, exploring how they can be made stronger,</p>	<p><u><b>Design and build a moving vehicle</b></u></p> <p>This activity can be done at school or at home and can take up to 3 or 4 sessions to complete.</p> <p>The amount of supported and independent work will depend on the age/ability of the children.</p>

stiffer and more stable

explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

## Design a Vehicle

You are going to design a vehicle. The vehicle will need to be able to carry heavy things and travel across bumpy, uneven surfaces.

### Things to think about:

- **Strength** – How can you make your vehicle strong enough to carry heavy things? What materials will you use to make your vehicle strong?
- **Wheels** – What type of wheels will travel best over bumpy, uneven surfaces? Small or big wheels? Smooth or textured? What should your wheels be made of?
- **Vehicle size** – As your vehicle needs to carry heavy loads across uneven surfaces, should it be tall and narrow or low and wide?

### Session 1

Children to think about features of tractors and other strong vehicles which are used to carry heavy loads.

Show/tell children what resources will be available eg empty food boxes, cardboard tubes, straws, wooden dowels and wheels.

Children to decide which resources they will need and draw a labelled diagram of their vehicle.

### Session 2

Watch ppt or adult to demonstrate how vehicles move through use of axles/wheels.

Gather materials and support children to build their vehicle.

### Session 3

Once the vehicle is dry/set the children can evaluate how successful they have been. What do they like about their vehicle? Would they change anything? What have they enjoyed about making their vehicle?