

## DT: Structures- Wheels and axles

Year 2

Summer

Working together to be the best that we can be

Golden Thread: Technological Advancement

## Two different ways to fix wheels **Dowel or paper sticks** Cardboard box used to make axle Wheel **Plastic** tubing or straw Tight fitting hole for axle, loosely Loose fitting hole fixed wheels for axle, tightly Plasticine or fixed wheels Can you identify the wheel masking tape

## Ways to hold moving axles

Use **pairs of clothes pegs** glued with PVA to the underside of a box.

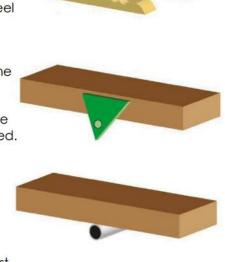
Check the peg holes are large enough to allow axles to move freely.

Make sure they are aligned carefully so the vehicle moves in a straight line when the wheel and axle mechanism is added.

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.

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.



## Glossary

- Axle a rod on which one or more wheels can rotate, either freely or be fixed to and turn with the axle.
- Axle holder the component through which an axle fits and rotates.
- Chassis the frame or base on which a vehicle is built.
- Friction resistance which is encountered when two things rub together.
- Dowel wooden rods used for making axles to hold wheels.