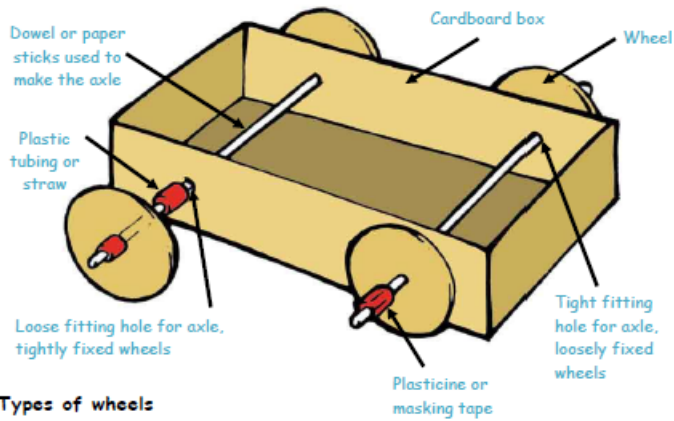
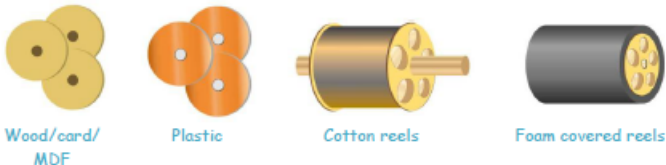


Techniques

Example of two different ways to fix wheels



Types of wheels:



Ways to hold free 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.

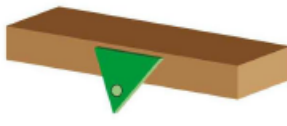
Make sure they are aligned carefully so the vehicle moves in a straight line when the wheel and axle mechanism is added.



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.



Vocabulary

vehicle	something used to carry and move people or things
wheel	a round frame that turns on an axle
axle	a rod that enables a wheel to rotate. The wheel can rotate freely on the axle 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
body	the main part of an object
cab	the enclosed part of a vehicle where the driver or operator sits
assemble	to construct by joining the parts of something together
cut	to divide something with a sharp tool such as a saw
join	to put, bring, or fasten together
shape	to give a certain form or shape to an object
fixed	firmly placed, fastened, or positioned; unmoving
free	able to move—not fixed in place
moving	producing or causing motion
mechanism	a device used to create movement in a product
design	to generate, develop and communicate ideas for a product
evaluate	to judge how a product meets chosen criteria
purpose	a reason or plan that guides an action, design or goal
user	the intended person in mind when designing a product
criteria	the precise goals that a project must achieve in order to be successful
functional	able to serve the intended purpose

Health and Safety

Pay close attention when using sharp tools

Stop what you're doing as soon as the teacher or your partner says "stop".