




Motors and Vehicles

EQUIPMENT	Strips of wood for chassis, Wood glue, Cardboard triangles, Cardboard triangles with holes (axle support), Dowels (for axles), Wheels with holes, Motor with small Pulley on spindle, Large pulley to fit dowel, Elastic band, Motor mounting clip, Battery and battery holder,
PREPARATION	Make a model beforehand Source materials
BACKGROUND INFORMATION	When an electric current passes through a motor the spindle turns around. The spindle turns too quickly for practical purposes for a vehicle. To slow down this movement a large pulley is attached to the 'axle' and is connected to the small pulley on the motor by an elastic drive band. The large pulley turns at a slower rate than the small pulley and so the wheels of the vehicle now turn at a slower and more practical speed.
SKILLS	Various technology skills – designing and making, construction skills, use of tools
ACTIVITY	<p>Design a vehicle which will move, using a motor and batteries:</p> <ul style="list-style-type: none">  chassis with axle supports,  axles and wheels,  motor, pulley and drive band system,  batteries <p>The length of the vehicle can vary, 15 cm – 20 cm works well.</p> <p>What alterations do you need to make to your design in order to make the vehicle run better?</p>
SAFETY	Use of tools
FOLLOW-UP ACTIVITIES	Can you design and make other objects/toys, which move, using the battery, motor, pulley and drive band system?

