

Mechanical systems

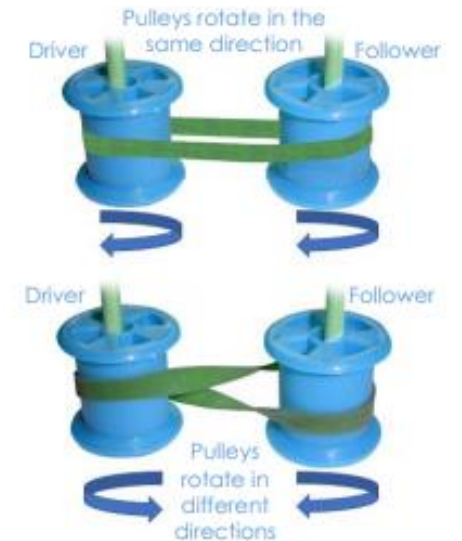
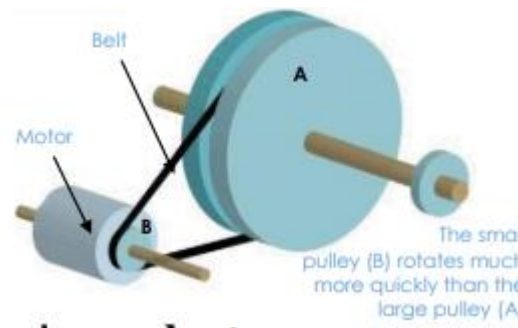
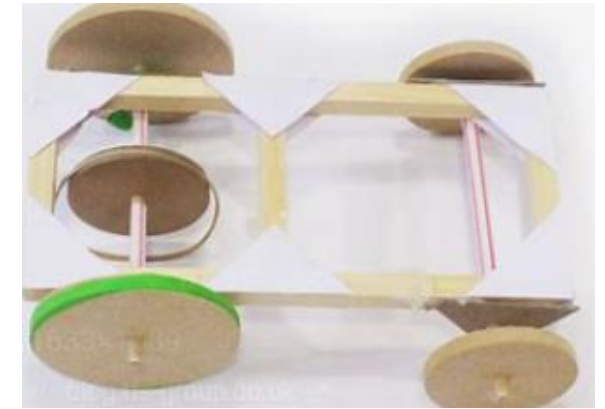
Pulleys or Gears



	Key Vocabulary
Pulley	A grooved wheel over which a drive belt can run.
Gear	A wheel with teeth around its circumference.
Drive Belt	The belt which connects and transfers movement.
Gearing up or down	Changing the rotational speed of a product by the use of pulleys or gears. When a small pulley or gear is used to drive a larger one, the rotational speed is reduced and the product has been geared down.
Mechanical system	A set of related parts or components used to create movements.
Driver	The gear or pulley that provides the input movement to the system.
Follower	The gear or pulley that provides the output movement to the system.
Mesh	The point where two gears join together and transfer movement.
Motor Spindle	The rod on the end of the motor onto which a gear or pulley is attached.

Gears and Pulleys

- Mechanisms are the parts that make something work.
- Mechanisms are all around us. A set of related mechanisms used to create movements is called a mechanical system.
- Gears are toothed wheels (cogs) that lock together and turn one another. When one gear is turned, the other turns as well.
- The wheels are usually different sizes so that one gear speeds up to slow down the next gear. They, therefore, increase the power of a turning force.
- Pulleys are like gears, but the wheels do not lock together. The wheels are instead joined together by a drive belt. Pulleys can be used to affect the speed, direction or force of a movement.



Designing,
making and
evaluating