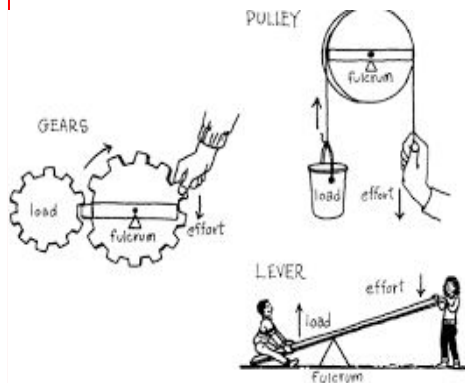


## Why are pulleys, levers & gears useful?

They reduce the effort we have to put into lifting or moving something. They allow a smaller force to have a greater effect.



<b>gears</b>	a toothed wheel that works with others to change the speed of a driving mechanism
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<b>pulleys</b>	These use a rope running over a pulley wheel to increase a force
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<b>levers</b>	These use a long pole and a pivot point to increase a force
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## Year Five Science Forces



### Key Knowledge

<b>What is a force?</b>	A force is either: a push or a pull. Forces can make things speed up, slow down, change shape or change direction
<b>What is gravity?</b>	Gravity is the force that pulls objects down towards the centre of the Earth. Gravity stops things from floating away into space. When things go up into the air (like a football) gravity pulls them back down.
<b>What is friction?</b>	Friction is a force caused by two surfaces sliding past each other; gripping each other. Types of friction include air resistance and water resistance.
<b>Magnetism</b>	Magnets attract or repel each other or other objects. North and South attract. But North and North or South and South will repel.

### What forces are acting on this powerboat?



### Significant person: Mae Carol Jemison

Mae Carol Jemison, born in 1956 was an engineer, medic and astronaut. She became the first black woman to go into space when she flew aboard Space Shuttle Endeavour in 1992.



### Key vocabulary

<b>force</b>	A push or a pull
<b>gravity</b>	Gravity is a force acting between the earth and an object that pulls the object towards the centre of the earth
<b>friction</b>	A force caused by two surfaces sliding or trying to slide past each other.
<b>air resistance</b>	A kind of friction that slows objects down when they travel through air
<b>water resistance</b>	A kind of friction that slows objects down when they travel through water
<b>buoyancy</b>	An object's ability to float
<b>upthrust</b>	A force that pushes objects up in water or air
<b>streamline</b>	To shape an object in a way that reduces the effect of air resistance or water resistance