Chacewater School – LEAP Into Learning – Summer 1 – Red Oaks
SCIENCE: Forces

What I might already know:
The planets and the Sun do not touch and the planets stay in orbit around the Sun

KEY QUESTIONS:

How does the surface area of an object affect the speed of a toy car?

Comparative and Fair Testing

How does the surface area of a parachute affect the time it takes to fall?

Pattern Seeking

How does the design of your parachute slow down a falling object?

???

Key Vocabulary:
forces
gravity
mass
weight
friction
resistance
buoyancy
streamline
mechanisms

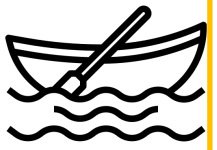
What we will be learning:

Forces make things begin to move, get faster or slow down.

Air resistance *is a force that acts in the opposite direction to gravity.*

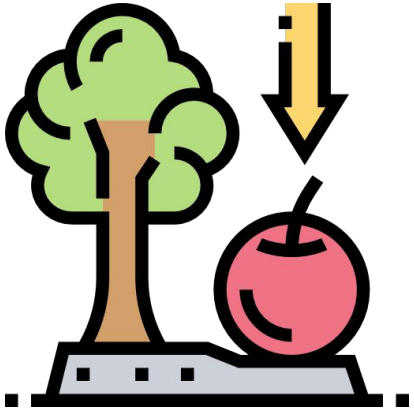
It acts between a moving object and the air molecules around it, slowing the object down.

Water resistance *is the force responsible for making it difficult for us to move through the water.*

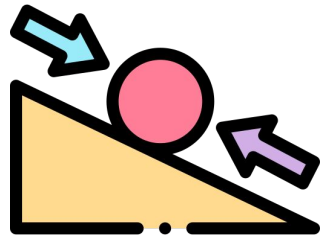


It acts between a moving object and the water molecules around it, slowing the object down

Unsupported objects fall towards the Earth because of the force of ***gravity*** *acting between the Earth and the falling object. (link back to earth and space)*



Some objects require large forces to make them move; ***gears, pulley and levers*** *can reduce the force needed to make things move. They allow a smaller force to have a greater effect.*



Friction *is a force that slows or stops moving objects and is caused by two surfaces rubbing against each other.*