



Science		Year 5	
Focus: Forces			
Age related vocabulary			
Air resistance	Air resistance is a type of friction between air and another material.	Friction	Friction is a force that slows objects down and it can occur when an object moves through water or air.
Water resistance	Water resistance is a type of friction between water and another material.	Gravity	Gravity is a force which pulls things towards the centre of Earth. It was discovered by Sir Isaac Newton.

Carlton Assessment Grid			
Success Criteria	Pupil Reflection		Teacher Assessment
I can identify different forces.	Before <input type="checkbox"/>	After <input type="checkbox"/>	
I can accurately measure the force of gravity pulling on an object.	Before <input type="checkbox"/>	After <input type="checkbox"/>	
I can plan and conduct an investigation into the effects of air resistance.	Before <input type="checkbox"/>	After <input type="checkbox"/>	
I can explore the effects of water resistance on objects.	Before <input type="checkbox"/>	After <input type="checkbox"/>	
I can investigate the effects of friction with different materials.	Before <input type="checkbox"/>	After <input type="checkbox"/>	
I can research different mechanisms.	Before <input type="checkbox"/>	After <input type="checkbox"/>	

Key Knowledge

- Objects fall to Earth due to the pull of gravity.
- Sir Isaac Newton was an English mathematician and one of the most influential scientists ever. He created laws on gravity and motion which would be used for 300 years.
- The weight of an object is caused by gravity pulling it down. Objects with more mass have a greater weight as the force of gravity pulls them down more strongly.
- Gravity pulls objects down with a force of approximately 1N for every 100g.
- Friction is a force that occurs between two materials – it slows objects down.
- Air resistance occurs between air and another material and water resistance occurs between water and another material.
- Some mechanisms, including levers, pulleys and gears allow a smaller force to have a greater effect.

