UKS2 forces (Year 5)

|  |
| --- |
| Prior Learning: Force is strength or energy as an attribute of physical action or movement and a mechanism is a system of parts working together. |

P.O.S – Forces

Concept – Physics - forces

|  |  |
| --- | --- |
| Facts | Vocabulary |
| 1. Definition of a force:
2. A force is any interaction that, when unopposed, will change the motion of an object
 | 1. Force - Middle English: from Old French force (noun), forcer (verb), based on Latin fortis ‘strong’.
 |
| 1. The action from a force can cause an object to:
2. move or speed up (accelerate)
3. to slow down (decelerate)
4. to stop
5. to change direction.
 |
| 1. Types of forces:
2. Gravity - the force by which a planet or other body draws objects toward its centre. The Earth’s gravity is what keeps you on the ground and makes things fall.
3. Air resistance - describes the forces that are in opposition to the motion of an object as it passes through the air thus slowing the object down.
4. Water resistance – A force that is cause by water with the force acting in the opposite direction to an object moving through the water.
5. Friction - the resistance that one surface or object encounters when moving over another.
 | Gravity Image result for water resistanceImage result for balanced and unbalanced forcesImage result for air resistance |
| 1. Balanced and Unbalanced forces:
2. Balanced forces do not cause a change in motion.
3. Unbalanced forces cause a change in the motion of an object .
 |
| 1. Simple machines that allow a smaller force to have a greater effect:
2. A lever - a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.
3. A pulley - a wheel with a grooved rim around which a cord passes, which acts to change the direction of a force applied to the cord and is used to raise heavy weights.
4. A gear - a toothed wheel that works with others to alter the speed of a driving mechanism and the speed of the driven parts
 |
| 6. Unit of measurement for forces:1. Newtons (N)
 |
| 7. Scientists who helped develop gravitational theory:1. Galileo Galilei
2. Isaac Newton
 |
| Websites:<https://www.bbc.com/bitesize/topics/znmmn39><https://www.schoolsofkingedwardvi.co.uk/ks2-science-year-5-5b-forces-gravity/><https://www.schoolsofkingedwardvi.co.uk/ks2-science-year-5-5c-forces-simple-machines/> |