



Accelerations



Task 1 – Acceleration

Use the words in the box to complete the sentences below.

force *acceleration* *resultant* *speed* *direction*

We know that if a resultant _____ acts on an object, then that object will move in the _____ of the force. In fact, as long as the _____ force continues to act on the object, its _____ will increase in that direction. This increase in speed is called an _____.

e.g.



The car will accelerate in the direction of the 3000N force

Task 2

Describe what will happen in each of the situations below. Use the term 'accelerate', as well as mentioning the names and directions of the forces involved.

Example: *A stone is released over a cliff.*

Answer: *The weight of the stone will cause it to accelerate downwards.*

- a. The fuse of a firework rocket is lit _____

- b. A ping-pong ball is released under water _____

- c. The throttle of a motorbike is opened up _____

- d. A helicopters rotor blades stop in mid-air _____

- e. A ball is thrown in the air _____

- f. A skydiver opens a parachute _____
