



# 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 \_\_\_\_\_  
\_\_\_\_\_