



# Accelerations



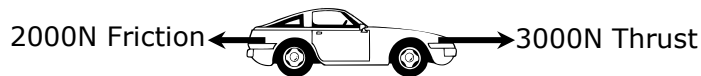
## Task 1 – Acceleration

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 \_\_\_\_\_  
\_\_\_\_\_