

Forces Practice

1 Write down three things a force can do to an object.

(a)

(b)

(c)

2 Do you need a force to do these things? How did you decide?

(a) Stop a moving car,

(e) Float on water,

(b) Throw a basketball,

(f) Hold a car still on a flat road,

(c) Compress air for a tyre,

(g) Drive a van up a hill at a steady speed,

(d) Stretch a spring,

(h) Hold a weight above your head.

3 Fill in the table with the names and directions of the forces.

Example	Name of force	Direction
Force of gravity		
Force from engine		
Force which stops things slipping		
Force from wings		
Support force from the floor		
Floating force		

4 When drawing a force diagram,

(a) should force arrows point towards or away from the object?

(b) what does a long force arrow mean?

- 5 When drawing a force diagram,
(a) must the diagram be to scale?

(b) can you draw a cat like this?

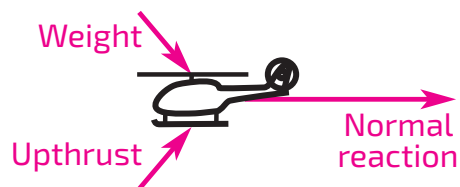
Cat

(c) if two objects touch in real life, how do you draw them in the diagram?

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- 6 The diagram shows a hovering helicopter.

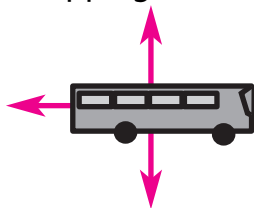
(a) What is wrong with this diagram?

(b) Make a better diagram

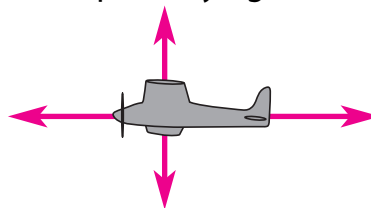


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- 7 Label the forces on the diagrams.

(a) A bus stopping



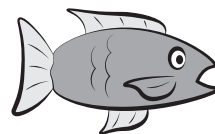
(b) An aeroplane flying



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- 8 Draw force arrows on the objects. Use longer arrows for stronger forces.

(a) A basketball being thrown.

(b) A stationary fish in water.



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- 9 Weight is a non-contact force. What does this mean?

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- 10 Name two other non-contact forces.

(a)

(b)