Forces

Name: _____

1 What is friction?

_____

_____

What causes friction between two surfaces?

_____

_____

2 marks

2 A block moves along each of these surfaces.

Tick the surface that will cause the most friction.

ice	gravel	carpet	glass

1 mark

3 What is the difference between a contact force and a non-contact force?

_____

_____

Give an example of a contact force.

_____

Give an example of a non-contact force.

_____

3 marks

4 Here is a skydiver.



The skydiver opens the parachute when falling through the air.

What forces are acting on the parachute?

force A _____

force B _____

2 marks

5 Does air resistance act only on objects falling through the air? _____

Explain your thinking.

_____

_____

1 mark

6 Other than a parachute, give two examples of where air resistance may act on an object.

_____

_____

2 marks

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7 Racing car drivers want to reduce the effects of air resistance on their cars during a race.



Why is it important to reduce the effects of air resistance on the cars?

_____

_____

1 mark

8 How does water resistance affect objects moving through water?

_____

_____

1 mark

9 What does “streamline” mean?

_____

1 mark

10 Some animals are adapted to reduce the effects of water resistance.

Give one example.

_____

1 mark

11 Do heavier objects fall to the ground faster than lighter objects?

_____

Explain your answer.

_____

_____

1 mark

12 Tick the correct definition of “gravity”.

contact force between two surfaces that are trying to move across each other	
force that pulls things towards the centre of Earth	
force that slows down objects moving through water	

1 mark

13 Levers, gears and pulleys allow forces to have a greater effect.

Explain how gears, levers and pulleys work.

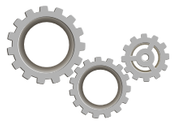
pulley



_____

_____

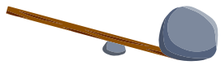
gears



_____

_____

lever



_____

_____

3 marks

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