Pressure

Forces 3.1.4 | Part 2, usually Year 8 | 20 quick questions

KS3 science quick questions

Answer online, marked instantly

Activate 2: Motion and pressure | Exploring Science 8I

Name: _____ **Date:** _____ **Score:** _____ **/ 20**

1 Pressure tells you how much force acts on a certain what? Answer in one word.

2 Write the equation for pressure using the words force and area.

3 Pressure on a surface can be measured in newtons per square metre. How is this unit written in symbols?

4 A box weighing 200 N rests on an area of 2 m^2. What pressure does it put on the floor, in N/m^2?

5 A school bag weighing 60 N lies on a desk, touching an area of 0.2 m^2. What is the pressure on the desk, in N/m^2?

6 Snowshoes spread a walker's weight over a bigger area. Does this make the pressure on the snow bigger or smaller?

7 A sharp knife cuts better than a blunt one. Does the sharp edge touch the food over a small area or a large area?

8 A diver swims deeper into the sea. What happens to the water pressure on her? Answer in one word.

9 In a tall tank of water, where is the water pressure greatest: at the top or at the bottom?

10 What name is given to the pressure caused by the air all around us? Answer in two words.

11 A climber goes higher up a mountain. What happens to the air pressure? Answer in one word.

12 Deep under the sea, does water press on a submarine only from above, or from all directions?

13 Liquids and gases can flow and have no fixed shape. What one word describes both of them?

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14 A boat floats still on a lake. The upthrust on it is equal to which other force?

15 A stone sinks to the bottom of a pond. Is its weight bigger or smaller than the upthrust on it?

Year 9 stretch

16 A 600 N dancer balances on one foot, touching the floor over 0.02 m^2. What pressure does she put on the floor, in N/m^2?

17 A force of 50 N pushes on an area of 25 cm^2. What is the pressure in N/cm^2?

18 A pressure of 400 N/m^2 acts on an area of 3 m^2. What is the total force, in newtons?

19 A helium balloon rises when you let go of it. Is the upthrust from the air bigger or smaller than the balloon's weight?

20 Explain why water pressure is greater deeper down in a swimming pool.

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