# Contact forces

Answers

**KS3 science quick questions**

This topic online

Activate 1: Forces; Activate 3: Forces and motion | Exploring Science 7K

| Q | Answer | Remember |
|---|---|---|
| 1 | friction | Friction always acts against the direction something is moving. |
| 2 | air resistance | Air resistance is drag in air; in water it is called water resistance. |
| 3 | tension | Tension pulls things apart; its opposite, compression, squashes them together. |
| 4 | equilibrium | In equilibrium an object stays still or keeps moving at a steady speed in a straight line. |
| 5 | reaction force | The table squashes very slightly and pushes back up, like a stiff spring. |
| 6 | 5 N | The book is not moving, so the up and down forces must be equal. |
| 7 | 100 N | Forces in opposite directions: take the smaller from the bigger. |
| 8 | stays the same | Balanced forces do not stop things - a moving object just keeps going at the same speed. |
| 9 | speeds up | An unbalanced force changes the speed in the direction of the bigger force. |
| 10 | oil | Oil keeps the metal surfaces apart so they slide past each other. |
| 11 | bigger | The faster you go, the more water you push out of the way each second. |
| 12 | deformation | Forces can change an object's speed, direction or shape. |
| 13 | extension | Extension = stretched length minus original length. |
| 14 | Hooke's law | Double the force, double the stretch - until you stretch it too far. |
| 15 | 6 cm | Three times the force gives three times the extension: 3 × 2 cm. |
| 16 | 8 cm | Take away the starting length: 18 - 10 = 8 cm. |
| 17 | 14 cm | Half the force gives half the extension (4 cm), then add the original 10 cm. |
| 18 | elastic limit | Stretch beyond the elastic limit and the spring stays permanently longer. |
| 19 | 700 N | Steady speed means balanced forces, so the upward force equals her weight. |


Free for classroom and home use: print, photocopy and share. Not for resale or re-hosting.

| Q | Answer | Remember |
|---|---|---|
| 20 | The large parachute makes the air resistance much bigger than her weight, so there is an upward resultant force that slows her down. | A bigger surface area pushes against more air, so drag shoots up. |


Free for classroom and home use: print, photocopy and share. Not for resale or re-hosting.