

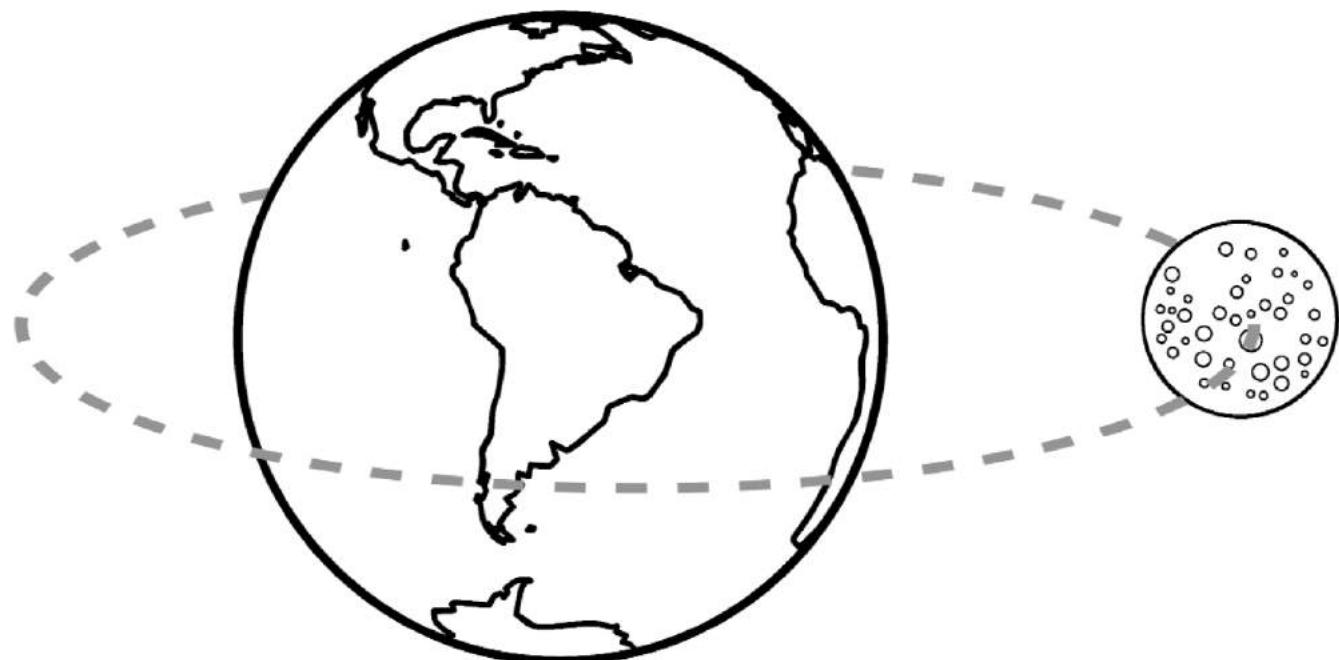
# Primary Science

Resource Pack for Year 5 and Year 6

This Primary Science Resource Pack includes resources on topics from Year 5 and Year 6 Learning Outcomes.

## The moon

Colour the Earth blue and green, and colour the Moon grey. Trace the path the Moon takes around the Earth. Then fill in the blanks below.



- The moon is a \_\_\_\_\_ of Earth. The moon \_\_\_\_\_ around our planet.
- Planet Earth has \_\_\_\_\_ moon. Some of the other planets in our \_\_\_\_\_ have moons too. Mercury and \_\_\_\_\_ do not have any.
- The moon does not shine by itself but \_\_\_\_\_ light from the Sun.
- When we look at the sky at night we see the moon in different \_\_\_\_\_. This is because the moon has different \_\_\_\_\_.
- The moon takes about \_\_\_\_\_ days to orbit the Earth.
- The moon has no \_\_\_\_\_.
- The first men to land on the moon in 1969, were \_\_\_\_\_ and \_\_\_\_\_ .



Venus,	reflects,	satellite,	Neil Armstrong,
phases,	one,	atmosphere,	orbits,
shapes,	Buzz Aldrin,	Solar System,	28



# Forces Crossword

Use your knowledge of forces to complete this crossword.

## Use these words to help you:

force

friction

streamlined

moving

same

opposite

gravity

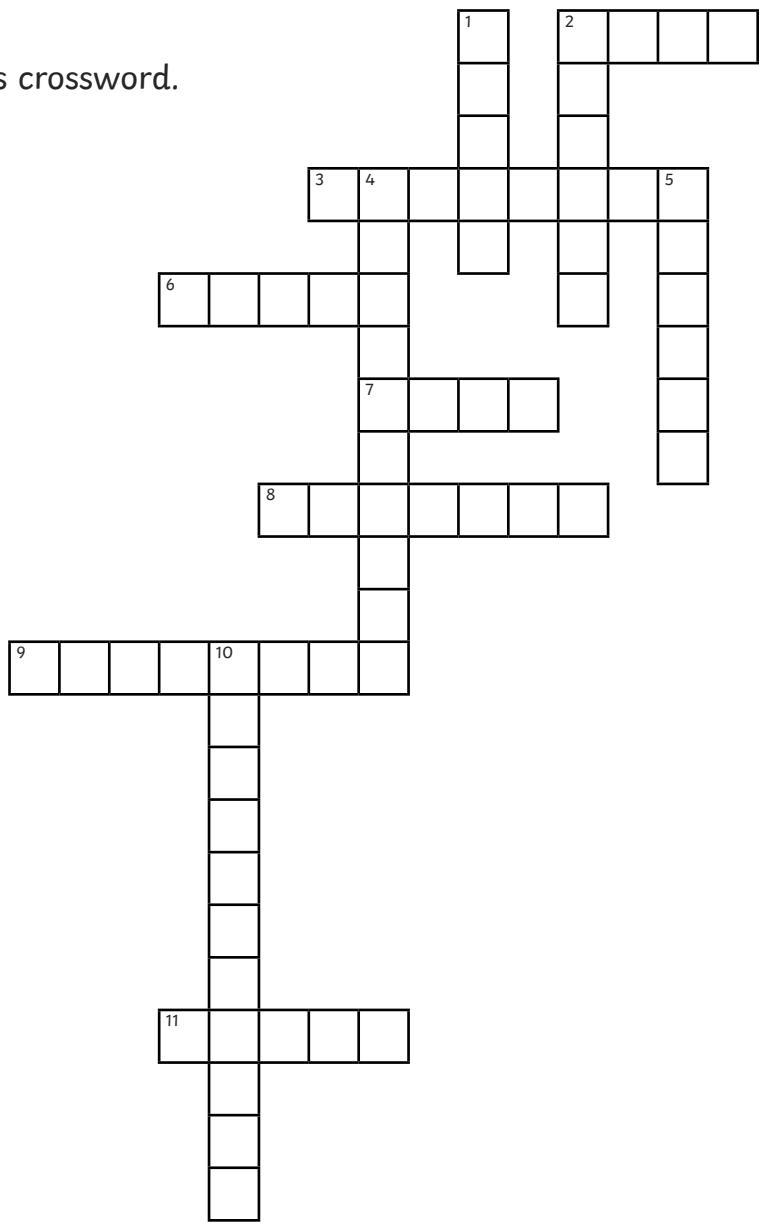
pivot

resistance

mass

slows

Newton



## Across

2. Scientifically, \_\_\_\_\_ is measured in kilograms and weight is measured in newtons.
3. All surfaces create \_\_\_\_\_ on an object moving across them.
6. Friction \_\_\_\_\_ moving objects down.
7. Galileo Galilei conducted an experiment to prove that all objects fall at the \_\_\_\_\_ rate, no matter what their mass is.
8. \_\_\_\_\_ is a pulling force exerted by the Earth.
9. When two gears are connected, they always

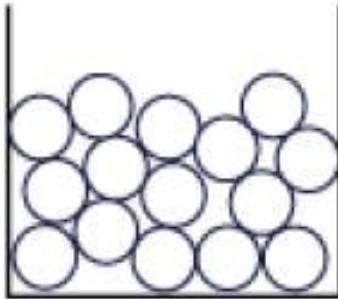
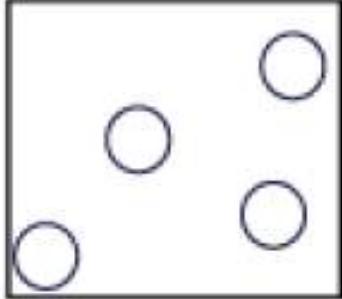
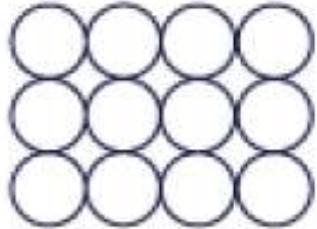
turn in \_\_\_\_\_ directions to one another.

11. A lever always rests on a \_\_\_\_\_.

## Down

1. A lever can be used to make a smaller \_\_\_\_\_ lift a larger load.
2. Air pushes against any object \_\_\_\_\_ through it.
4. Aeroplanes are streamlined so they do not experience much air \_\_\_\_\_.
5. Isaac \_\_\_\_\_ discovered more about gravity.
10. Objects that do not experience much air or water resistance are called \_\_\_\_\_.

Cut out the following and stick them in the table in the next page:

Solid	Liquid	Gas
		
Particles are spread out, and can move about quickly in all directions.	Particles are closely-packed in a regular pattern. They vibrate on the spot.	Particles are close together, but random. They can move over each other.



State	Particle Arrangement	Particle Properties



# Liquid Tower

## Resources required:

A highball glass or a tall glass; liquids: vegetable oil, rubbing alcohol, dishwashing soap, coloured water (with any food colouring of your preference), milk and honey.

## Description of investigation:

1. Arrange your liquids in order with the one that you think will go to the very bottom first and the one which you think will stay at the top last (from most dense to less dense).
2. Pour a centimetre of your first liquid in your glass. Try to avoid the walls of the glass.
3. Now pour the rest of the liquids one by one each time observing how the liquids settle on top of each other.
4. You may decide to add small solids as well to your liquid tower such as a bolt, a corn kernel or a bead.

## More info:

- <https://www.stevespanglerscience.com/lab/experiments/density-tower-magic-with-science/>
- <https://www.activewild.com/density-for-kids/>

## Investigation Questions:

- ✓ How did the liquids settle?
- ✓ Did the liquids settle the way you predicted?
- ✓ Where did the small solids settle?



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# Make a Balloon Rocket

## Resources required:

1 balloon (round ones will work, but the longer 'airship' balloons work best), 1 long piece of nylon thread, 1 plastic straw and tape.

## Description of investigation:

- 1) Tie one end of the string to a chair, door knob, or other support.
- 2) Put the other end of the string through the straw.
- 3) Pull the string tight and tie it to another support in the room.
- 4) Blow up the balloon (but don't tie it). Pinch the end of the balloon and tape the balloon to the straw as shown here.
- 5) You're ready for launch!!!! Let go and watch the rocket fly!



## How does it work?

It's all about air ... and thrust. As the air rushes out of the balloon, it creates a forward motion called THRUST. Thrust is a pushing force created by energy. In our experiment, our thrust comes from the energy of the balloon forcing the air out. Different sizes and shapes of balloon will create more or less thrust.

## More info:

<https://kids.kiddle.co/Thrust>

## Investigation Questions:

- ✓ Does the shape of the balloon affect how far (or fast) the rocket travels?
- ✓ Does the length of the straw affect how far (or fast) the rocket travels?
- ✓ Does the length of the string affect how far (or fast) the rocket travels?
- ✓ Does the type of string affect how far (or fast) the rocket travels? (try fishing line, nylon string, cotton string, etc.)
- ✓ Does the angle of the string affect how far (or fast) the rocket travels?

