

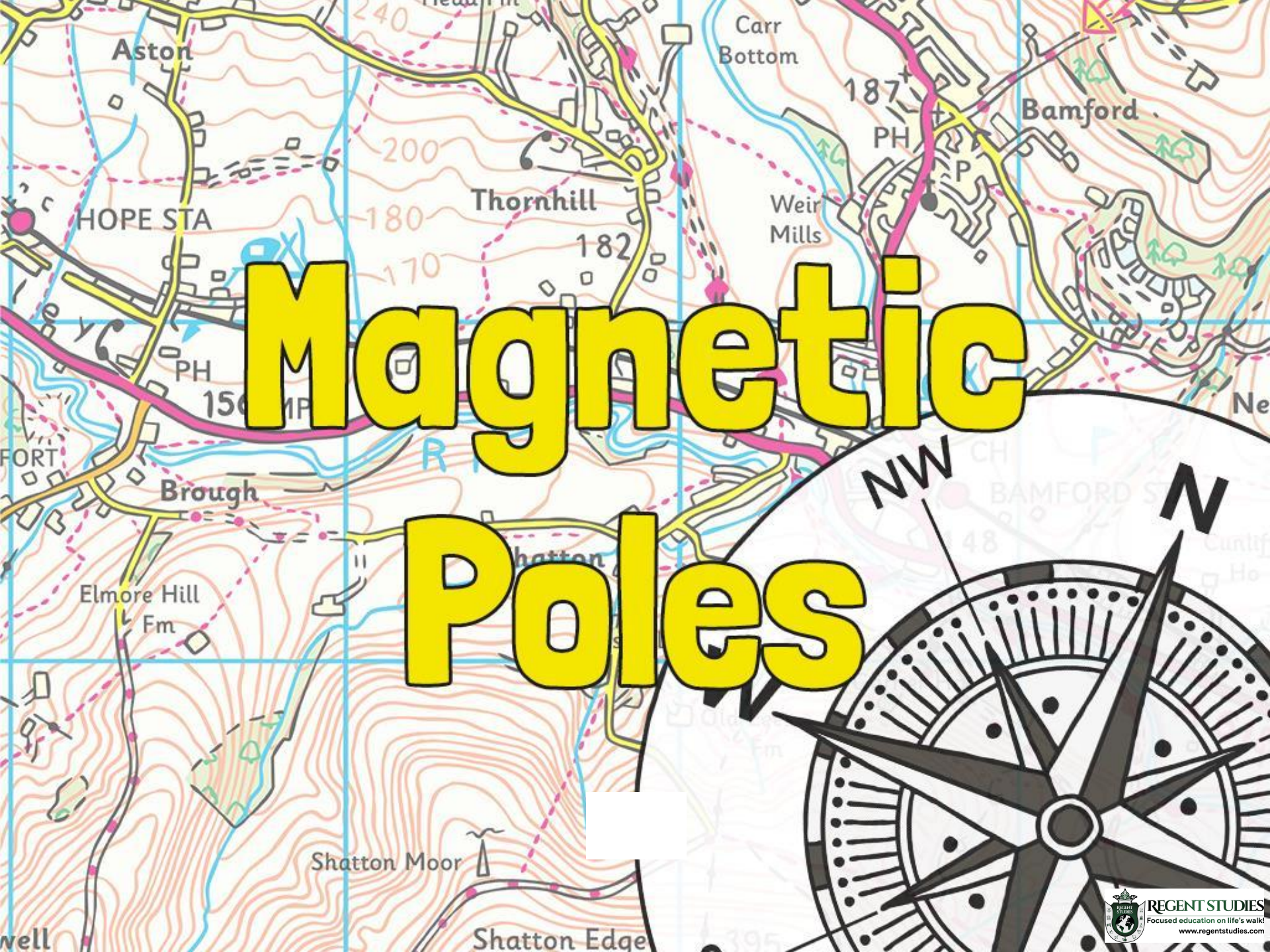


# Science

## Forces and Magnets



# Magnetic Poles





# Aim

- I can explore magnetic poles.

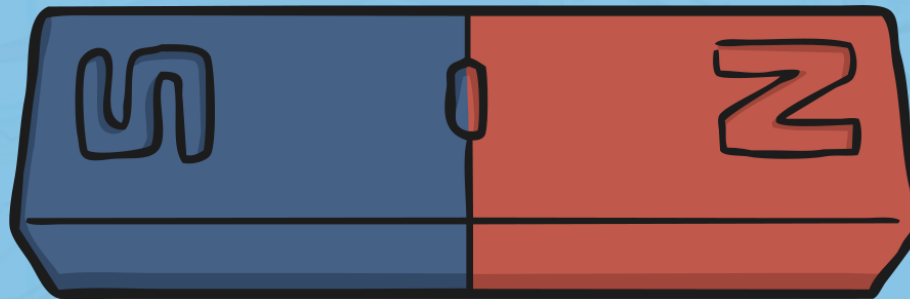
# Success Criteria

- I can identify the poles of a magnet.
- I can look at poles to say whether two magnets will attract or repel each other.
- I can explain that a compass always points north-south.

# Magnets and Their Invisible Force



Look at this bar magnet.



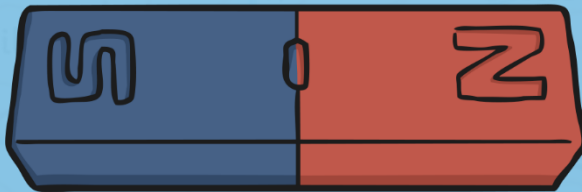
It has two different sections, which are often coloured red and blue.  
But what are these sections?



# Magnets and Their Invisible Force



Click the magnet to find out.



While you are watching, can you listen for the answers to these questions?

What happens when two magnets repel each other?  
What are the different parts of a magnet called?  
Which way will a compass always point?

# Magnets and Their Invisible Force

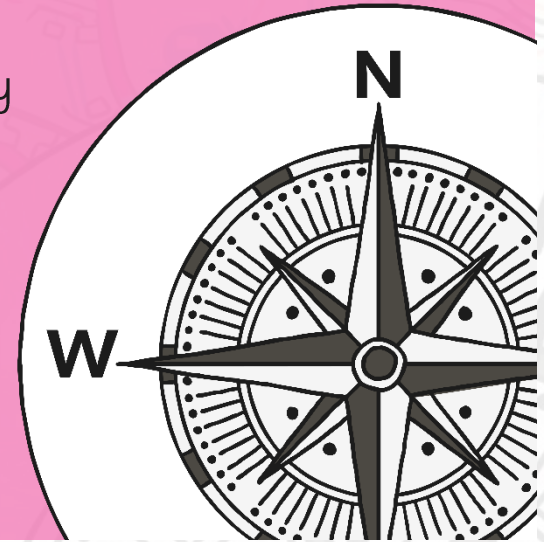


What did you find out?

When two magnets repel each other, they push away from each other.

The different parts of a magnet are called the **poles**. There is a north pole and a south pole.

A compass always points north-south.



## Did You Know...?

The three metals that are attracted to magnets are iron, cobalt and nickel.



# Attract and Repel



Explore the poles of two magnets and feel them repel and attract.

Take two magnets and place them so the two north poles are facing each other. Try to make them touch. What do you feel?

Try this with the two south poles. What do you feel this time?

You should feel the two magnets pushing away from each other – they are **repelling** each other.

Now try to make the north pole of one magnet touch the south pole of another magnet. What do you observe this time?

Did the two magnets stick together? They are **attracted** to each other.

**Remember: Like poles repel, opposite poles attract.**

# Attract and Repel



Complete your **Magnetic Poles Activity Sheet** by deciding whether the magnets pictured will attract or repel each other.

## Magnetic Poles

The north pole of a magnet will always attract to the south pole of another magnet. If two north poles or two south poles are put together they will repel each other. When this happens the magnets will move away from each other. Write whether you think the magnets shown below will attract or repel each other.

N S N S

I think these magnets will \_\_\_\_\_

S N N S

I think these magnets will \_\_\_\_\_

S N S N

I think these magnets will \_\_\_\_\_

N S S N

I think these magnets will \_\_\_\_\_

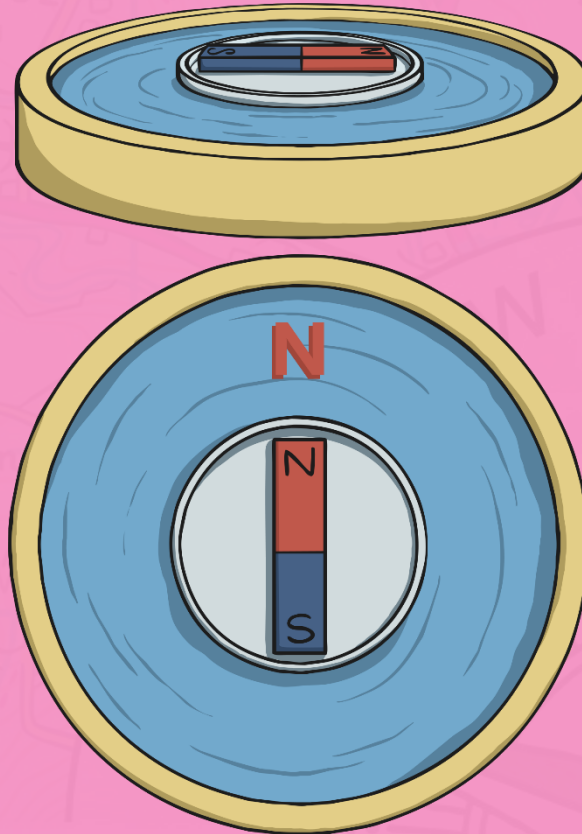


# Treasure Hunt



Use the force of magnetic attraction to make your own compass!

Follow the instructions on your **Make a Magnetic Compass Activity Sheet**.



# Treasure Hunt



Test out your compass by turning the bowl around slowly. The north pole of the magnet should always point the same way, north, even if the bowl moves.

**You can now use your compass to find your group's treasure!**

Treasure has been hidden in different locations around the playground. Each group's treasure is in a different direction. Your teacher will give you a Direction Card so you will know which way you need to go to find your group's treasure.

Stand in the centre of the playground and use your compass to find the correct direction. Slowly walk in that direction until you find your treasure!

Good luck!



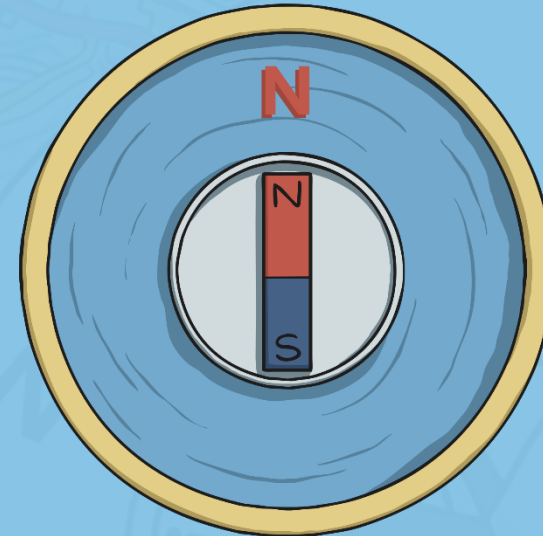
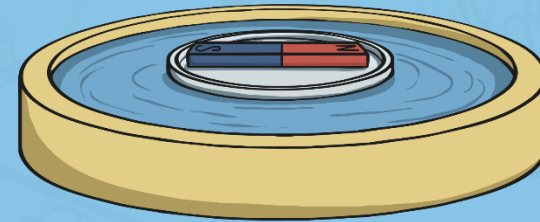
# Evaluation and Explanation



Did you manage to use your compass to find your treasure?

How did your compass work?

Talk to a partner to explain how your compass worked to enable you to find your treasure.



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