

# Grade 8



# SCIENCE



### Magnets

#### Types of magnets

##### Activity 1

Recall the things you have learnt in grade 6 about types of magnets. Name the types of magnets given below.



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#### Magnetic materials

##### Activity 2

Find any type of magnet that can be found at home. Hang it using a thread. Collect different materials. (Ex: piece of plastic, iron nail, copper wire, piece of wood etc..). Then bring the objects near the hanging magnet and observe well.

Materials that attracted to the magnet	Materials that didn't attract to the magnet

❖ Materials that attract towards magnets are known as magnetic materials.

Ex: Iron, Nickel, Chromium



### Poles of a magnet

#### Activity 3

Go to the garden with your magnet and collect iron fillings by placing a magnet on the ground. Now, remove the iron fillings from the magnet and put the magnet into a polythene bag. Then, place it on the iron fillings and observe.

Draw a rough sketch of the pattern that you could observe when doing the above activity.



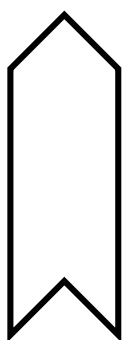
#### Activity 4

### Let us make a magnetic boat

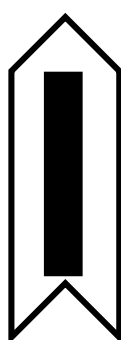
Take a piece of polystyrene, a magnet on which poles are not marked, a magnet on which poles are marked, glue & a basin of water.

Then make a simple boat as shown in the following figure. Now keep it in the basin of water.

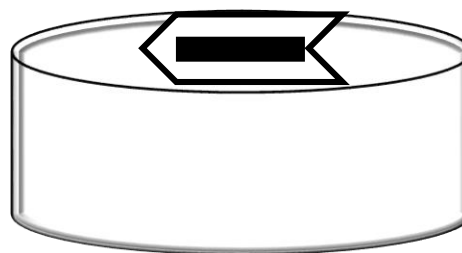
Then, take your magnet where poles are marked and bring one end of it closer to the boat. Observe well.



1. Cut the piece of polystyrene as shown in the figure.



2. Fix the magnet to the polystyrene.



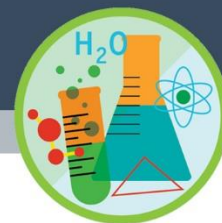
3. Place it on the water basin. Direct the marked magnet towards the front and back side of the boat you have made.

Observations:

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❖ Like poles will repel and unlike poles will attract.

North – North	→	Repel
North – South	→	Attract
South – South	→	Repel
South – North	→	Attract

### Magnetic field of a magnet

#### Activity 5

Put some iron fillings on to a cardboard / A4 sheet. Then place the magnet underneath the A4 sheet and observe the patterns. Draw a rough sketch of them.



What is known as magnetic field of a magnet?

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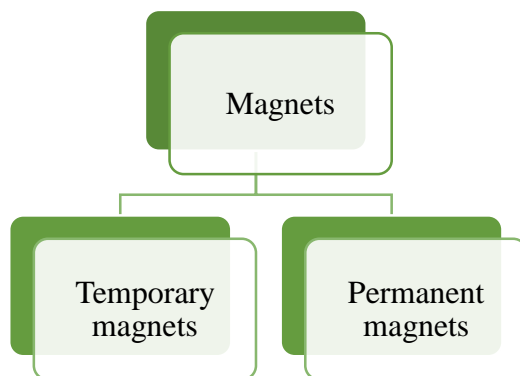
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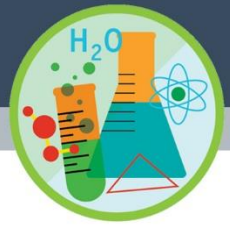
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#### Activity 6

Collect facts on geomagnetism and compass. Make an article to be post on school wallpaper.

### Temporary magnets and permanent magnets





Give an example for temporary magnets.

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State the methods to make a permanent magnet.

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Magnetic power of permanent magnets is lost due to various reasons. What are they?

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Draw a rough sketch to illustrate the method of storage of magnets.

