

Ncert Solutions Class 6 Science Chapter 13

Ncert Solutions For Class 6 Science Chapter 13 Fun with Magnets

1. Fill in the blanks in the following

- (i) Artificial magnets are made in different shapes such as _____, _____ and _____.
- (ii) The Materials which are attracted towards a magnet are called _____.
- (iii) Paper is not a _____ material.
- (iv) In olden days, sailors used to find direction by suspending a piece of _____.
- (v) A magnet always has _____ poles.

Answer

- (i) Artificial magnets are made in different shapes such as bar magnets, horse-shoe magnet and cylindrical or a ball-ended magnet.
- (ii) The Materials which are attracted towards a magnet are called magnetic materials.
- (iii) Paper is not a magnetic material.
- (iv) In olden days, sailors used to find direction by suspending a piece of magnet.
- (v) A magnet always has two poles.

2. State whether the following statements are true or false

- (i) A cylindrical magnet has only one pole.
- (ii) Artificial magnets were discovered in Greece.
- (iii) Similar poles of a magnet repel each other.
- (iv) Maximum iron filings stick in the middle of a bar magnet when it is brought near them.
- (v) Bar magnets always point towards North-South direction.
- (vi) A compass can be used to find East-West direction at any place.
- (vii) Rubber is a magnetic material.

Answer

- (i) False
- (ii) False
- (iii) True
- (iv) False
- (v) True
- (vi) True
- (vii) False

3. It was observed that a pencil sharpener gets attracted by both the poles of a magnet although its body is made of plastic. Name a material that might have been used to make some part of it.

Answer

The blade of the sharpener is made up of iron which is a magnetic substance which gets attracted by both the poles of a magnet although its body is made of plastic.

4. Column I shows different positions in which one pole of a magnet is placed near that of the other. Column II indicates the resulting Acids

Column I	Column II
----------	-----------

N-N	_____
N-_____	Attraction
S-N	_____
_____-S	Repulsion

Answer

Column I	Column II
N-N	Repulsion
N-S	Attraction
S-N	Attraction
S-S	Repulsion

5. Write any two properties of a magnet.

Answer

Two properties of a magnet:

- (i) Magnet aligns in North-South direction when suspended freely.
- (ii) A magnet has two magnetic poles.

6. Where are poles of a bar magnet located?

Answer

Poles of a bar magnet located at its two ends.

7. A bar magnet has no markings to indicate its poles. How would you find out near which end is its north pole located?

Answer

To locate its north pole, we would do the following steps:

- (i) A bar is taken and suspended freely from the middle with the help of thread.

(ii) Allow the magnet to come into rest.

(iii) The North pole of the magnet will face the north direction and South pole will face the south direction.

(iv) Mark the north pole of the magnet with the marker.

8. You are given an iron strip. How will you make it into a magnet?

Answer

Steps to make an iron strip into bar magnet:

(i) A flat strip of iron is taken.

(ii) On the iron strip, a bar magnet is placed and rubbed against it horizontally only in one direction.

(iii) When you reached the end of the strip, lift the magnet and again start rubbing from the initial position.

(iv) This process is repeated more than 40-50 times.

(v) After this, the iron strip will attain the property of magnet.

9. How is a compass used to find directions?

Answer

A compass has a magnetic needle attached to it which can rotate freely. The magnet always points to north-south direction which is marked on compass and thus helps in finding direction.

10. A magnet was brought from different directions towards a toy boat that has been floating in water in a tub. Affect observed in each case is stated in

Column I. Possible reasons for the observed affects are mentioned in

Column II. Match the statements given in Column I with those in Column II.

Column I	Column II
Boat gets attracted towards the magnet	Boat is fitted with a magnet with north pole towards its head

Boat is not affected by the magnet	Boat is fitted with a magnet with South pole towards its head.
Boat moves towards the magnet if North pole of the magnet is brought near its head.	Boat has a small magnet fixed along its length.
Boat moves away from the magnet when North pole is brought near its head.	Boat is made of magnetic material.
Boat floats without changing its direction.	Boat is made up of non-magnetic material.

Answer

Column I	Column II
Boat gets attracted towards the magnet	Boat is made of magnetic material.
Boat is not affected by the magnet	Boat is made up of non-magnetic material.
Boat moves towards the magnet if North pole of the magnet is brought near its head.	Boat is fitted with a magnet with South pole towards its head.
Boat moves away from the magnet when North pole is brought near its head.	Boat is fitted with a magnet with North pole towards its head.
Boat floats without changing its direction.	Boat has a small magnet fixed along its length.