Science

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Question 1:

Draw magnetic field lines around a bar magnet. **Answer 1:**



Field lines around a bar magnet

Question 2:

List the properties of magnetic lines of force.

CAnswer 2:

Properties of magnetic lines of force (also known as magnetic field lines) are listed below:

- > Outside the magnet, the magnetic field lines are directed from N-pole of magnet towards S-pole. However, inside a magnet the field lines are directed from S-pole to N-pole. Thus magnetic field lines form a close loop.
- > The magnetic field line at any point points in the direction of magnetic field at that point.
- > The relative strength of magnetic fields is given by degree of closeness of the field lines. The magnetic field is strong in the region where the field lines are crowded.
- > No two magnetic field lines can ever intersect with each other.

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Question 3:

Why don't two magnetic lines of force intersect each other?

Answer 3:

No two field-lines are found to cross each other. If they did, it would mean that at the point of intersection, the compass needle would point towards two directions, which is not possible.

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