 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Explore the magnetic field pattern around different types or combinations of magnets.



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| --- | --- | --- | --- | --- |
| Know | |  | Apply  2  1 | |
| Ideas | |  |  |  |
| K1 | Magnetic materials, electromagnets and the Earth create magnetic fields which can be described by drawing field lines to show the strength and direction. The stronger the magnet, and the smaller the distance from it, the greater the force a magnetic object in the field experiences. |  | A1 | Use the idea of field lines to show how the direction or strength of the field around a magnet varies. |
| A2 | Explain observations about navigation using Earth's magnetic field. |
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| Facts | |
| K2 | Two 'like' magnetic poles repel and two 'unlike' magnetic poles attract. |  |  |  |
| K3 | Field lines flow from the north-seeking pole to the south-seeking pole. |  |  |  |
|  | |  |  |  |
| Key words | |
| K4 | **Magnetic force:** Non-contact force from a magnet on a magnetic material. |  |  |  |
| K5 | **Permanent magnet:** An object that is magnetic all of the time. |  |  |  |
| K6 | **Magnetic poles:** The ends of a magnetic field, called north-seeking (N) and south-seeking poles (S). |  |  |  |
| 3 | Extend |  |  |  |
| E1 | Predict the pattern of field lines and the force around two magnets placed near each other. |  |  |  |
| E2 | Predict how an object made of a magnetic material will behave if placed in or rolled through a magnetic field. |  |  |  |
| E3 |  |  |  |  |
|  |  |  |  |  |
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| E4 |  |  |  |  |
|  |  |  |  |  |
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