All about magnetism...

Grade 4 Science: Magnetism/Electricity
Investigation 1

- The rule is, if a magnet sticks to an object, that object is iron or steel. Remember, magnets do not stick to all metals (copper, aluminum, brass).
- When magnets come together or interact, two things can happen:
    - Sometimes they stick together (attract or pull).
    - Sometimes they push away (repel or push).
- This mysterious something you can't see, smell, taste, or grab, but that you can feel between the magnets, is a **force**.

- **Force**: a push or pull
- **Magnet**: an object that sticks to iron
- **Magnetism**: a specific kind of force
- When magnets pull together, we say they **attract**.
- When magnets push apart, we say they **repel**.
- When you touch a piece of iron to a permanent magnet magnetism is induced in the piece of iron, and it becomes a temporary magnet.
- The force of magnetism is stopped by thick objects and sheets of steel.
- Distance weakens the magnetic force between a magnet and another object or another magnet.

- **Temporary Magnet**: A piece of iron that behaves like a magnet when it is touching a permanent magnet.
- **Induced Magnetism**: The influence of a permanent magnet's magnetic field on a piece of iron, which makes the iron act like a magnet.
- The greater the distance between two magnets, the weaker the force of attraction.
- A **prediction** is an educated guess.
- A **detector** is something you use to gather evidence about something you can't see.
- Compasses, iron filings, and iron objects can be used to detect a magnetic field.