Objective

By the end of this lesson, Halen will understand the basic principles of magnetism, including what magnets are, how they work, and their various applications in daily life. Halen will also engage in hands-on activities to explore magnetic forces and properties.

Materials and Prep

- Various magnets (if available, otherwise any metal objects to test)
- Common household items (paper clips, coins, etc.)
- Notebook and pencil for observations
- Access to a computer or device for research (optional)

Before the lesson, ensure that Halen understands basic physical concepts such as force and attraction. Prepare a safe space for activities involving magnets and metal objects.

Activities

- **Magnet Exploration:** Halen will use magnets to test various household items to see which ones are magnetic. Halen will make a list of items that are attracted to the magnet and those that are not.

  This activity helps Halen discover which materials are magnetic and introduces the concept of ferromagnetism.

- **Magnet Art:** Halen can create art using magnets by placing them on a metal surface and arranging them in different patterns.

  This creative activity allows Halen to visualize the magnetic forces in action while having fun with art.

- **Magnetic Field Mapping:** If possible, Halen can use iron filings (or small metal objects) to visualize the magnetic field around a magnet by sprinkling them around the magnet on a piece of paper.

  This activity will help Halen understand how magnetic fields work and visualize the invisible forces at play.

Talking Points

- "Magnets have two poles: north and south. Opposite poles attract each other, while like poles repel each other."
- "Magnetism is a force that can attract or repel certain materials, like iron, nickel, or cobalt."
- "Did you know that Earth itself is a giant magnet? The magnetic field protects us from harmful solar radiation!"
- "Magnets are used in many everyday objects, like refrigerator doors, speakers, and even in medical devices!"
- "The strength of a magnet can vary based on its size, shape, and material. Let's see how different magnets behave!"