

Name: _____

Date: _____

8 PS: Activity 1: Invisible Forces (10 Total Pts)

What are Invisible Forces? 🤖

A **force** is a push or a pull.

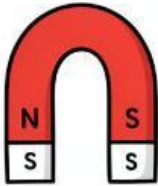
Usually, you have to touch an object to move it, like when you use your hand to push a heavy door open.

However, some forces can move objects from a distance **without touching** them! Scientists call the invisible space around these objects a **field**. When something enters this field, it feels a force pulling it in or pushing it away.



1. Comparing Forces Table (3pts)

Directions: Look at the pictures and read the descriptions. Fill in the empty boxes to compare how these three forces work.

The Force	The Object	Does it Push or Pull or Both?
Gravity (The Earth)	 Any object with mass (matter).	Gravity only pulls . It pulls objects together.
Magnetism (Magnets)	 Magnets have poles (North and South).	
Electric (Static Electricity)	 Objects with charge (+ and -).	



Hint: Like charges (+ and +) **push** away. Opposite charges (+ and -) **pull** together.

2. Circle the Right Word (3pts)

Directions: Read each sentence below. Circle the word in the parentheses that correctly completes the sentence.

1. Gravity is an invisible force that will always (**push / pull**) objects toward the ground.
2. A magnet can move a metal object even if the two objects (**touch / do not touch**).
3. If you try to put two North poles together, they will (**push / pull**) away from each other.
4. Because the Earth has a very large (**mass / charge**), it has a strong gravitational field.

3. Label and Draw! (4pts)

Directions: Write **N** and **S** on the ends of the magnet. **Draw lines to show the field.**

Space for sketching magnetic field lines



Field lines originate and return to the poles