

8 PS: 1. Exploring the Concept of a Field Guided Notes

Key Vocabulary

- **Field:** An object's _____ force area.
- **Force:** A _____ or a pull that acts on an object.
- **Non-contact:** Force acting at a _____ without touching.
- **Interaction:** When two objects _____ each other through a force.

What is a Field?

- A field is a _____ of _____ surrounding an object.
- If another object enters this region, it feels a _____.
- The force happens because of where the object is _____.

Non-Contact Forces

- Have you ever seen a magnet snap onto a fridge or watched an apple fall from a tree?
- These are examples of **non-contact forces** because the objects **did not touch** before they started moving.

Three Types of Fields

1. Gravitational Fields

- Caused by _____
- Earth's field pulls everything with mass toward the _____ of Earth
- Gravity always _____ (never pushes away)

2. Electric Fields

- Caused by _____
- Can _____ or _____
- Like charges push apart. Opposite charges pull _____

3. Magnetic Fields

- Caused by _____ (North and South)
- Can **attract** or _____
- North attracts South. North repels _____

Detecting Invisible Fields

Since fields are invisible, we use _____ to detect them.

- **For Gravity:** We _____ a ball. If it falls, a gravitational field is present.
- **For Magnetism:** We use _____ or a _____

Position Matters

- Objects can experience a force due to an external _____.
- The force depends on the object's _____ within the field.
- If you move the object to a different spot, the force might get _____ or _____

Summary

- A **field** is a _____ where a _____ force is felt.
- _____, _____, and _____ fields are all around us.
- We detect them using _____.

- An object's _____ in the field determines the _____ it feels.



DON'T FORGET THE QUESTIONS!!