Natural Science unit 5 "Forces"

1. **Match the sentences:**

1. Opposite poles of a magnet…	• a magnetic field.
2. Same poles of a magnet…	• is a natural magnet.
3. Magnetism can be…	• attract.
4. Magnets create…	• a push or a pull force
5. The mineral magnetite…	• a north and a south pole
6. Magnets have two poles:…	• repel

2. **Read about gravity and tick true or false**

The Earth has gravity. The Moon and Sun also have gravity. In fact, every object with mass has gravity – even you! So why do we feel the effects of the Earth's gravity, but we don't feel the effects of our own gravity? Well, that's because the Earth is so big. The bigger an object is, the greater its gravitational force. So an object as big as a planet attracts much smaller objects, such as trees, buildings and people. The gravity of these much smaller objects isn't noticeable because the gravity of the planet is so much bigger.

a. All objects have gravity **T** **/ F**

b. The gravity of the Earth is the same as the gravity of the moon. **T** **/ F**

c. The gravity of small objects is easy to notice **T** **/ F**

3. These things are related to a force. Taking this into account, write: **BF** (balanced force), **UF** (unbalanced force), **M** (magnetism), **G** (gravity) or **U** (upthrust)

- Equal but opposite force
- Magnetic field
- Isaac Newton
- Archimedes
- Air and water
- No change
- North and south poles
- Change of shape
- Towards the centre of the Earth
- Opposite to gravity
- Attract and repel
- Newtons
- Sink
- Not equal
- Floating

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4. Collocate these answers with their correspondent questions:

It´s a force that acts on an object without touching it, for example when a magnet attracts a
The object doesn´t move because the forces are balanced, the cancel each other out.
Unbalanced forces can cause a change in shape or movement, for example they can cause an object to start moving, change direction, slow down, speed up, change shape, or break.
It´s a force created when an object touches another, for example when we push a shopping trolley.

A) What is a contact force? Give an example.

B) What is a non-contact force? Give an example.

C) What happens when two equal and opposite forces are applied to an object? Why?

D) What effects can unbalanced forces have? Name 5 changes.

5. Tick the correct options to complete the table.

			
Name of force	Push Pull	Gravity Magnetism	Gravity/upthrust Push
Type of force	Contact Non-contact	Contact Non-contact	Contact Non-contact

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