




# DAY 2 - KPSI: MATTER AND FORCES

|  | <br>I don't know | <br>I know a little | <br>I could explain it |
|--|---|---|---|
| Can you define the term " <b>matter</b> "?   |   |   |   |
| Can you describe the <b>general properties</b> of matter?  |   |   |   |
| Can you define the term " <b>force</b> "?  |   |   |   |
| Can you explain the <b>types of forces</b> ?   |   |   |   |
| Can you describe how <b>forces can change an object movement</b> ?                                   |   |   |   |
| Can you describe <b>how forces affect materials</b> ?  |   |   |   |
| Can you classify <b>objects</b> depending on <b>how they change</b> when a force is applied to them? |   |   |   |
| Can you explain the <b>properties of materials</b> ?   |   |   |   |

# ACTIVITIES 2: FORCES

1. Watch the video "[What is force? – Part 2](#)" and complete the following questions by choosing the correct answer.

**1.1. What is "force"?**

- ☐ It is only a human pushing or pulling on an object.
- ☐ It is a push or pull upon an object resulting from its interaction with another object

**1.2. What are the two types of forces?**

- ☐ Contact forces and non-contact forces.
- ☐ Pulling or pushing an object.

**1.3. What are contact forces?**

- ☐ When an object pushes or pulls another object.
- ☐ When a force acts on an object without touching it.

**1.4. What kind of force is "friction"?**

- ☐ It is a non-contact force.
- ☐ It is a contact force.

**1.5. What are non-contact forces?**

- ☐ When an object pushes or pulls another object.
- ☐ When a force acts on an object without touching it.





**1.6. What kind of force is "gravity"?**

- ☐ It is a non-contact force.
- ☐ It is a contact force.

**1.7. What are the effects of forces?**

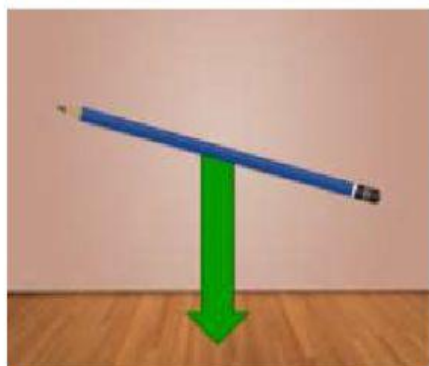
- |  |  |
|--|--|
| <input type="checkbox"/> Start a movement. | <input type="checkbox"/> Cooking.          |
| <input type="checkbox"/> Evaporation.      | <input type="checkbox"/> Change direction. |
| <input type="checkbox"/> Change the shape. | <input type="checkbox"/> Condensation.     |
| <input type="checkbox"/> Watching TV.      | <input type="checkbox"/> Stop movement.    |

2. Choose the correct words to complete the diagrams about forces.

| <h2>TYPES OF FORCES</h2>   |   |
|--|---|
| <h3>_____ forces</h3> <p>When one object is in contact with another that pushes or pulls it.</p> <p><u>Example:</u></p> <ul style="list-style-type: none"><li>• when you _____ a door to open it. </li><li>• when you _____ a door to open it. </li></ul> | <h3>_____ forces</h3> <p>When a force acts on an object without touching it.</p> <p><u>Example:</u></p> <ul style="list-style-type: none"><li>• a magnet attracts paper clips without touching it (_____). </li><li>• Earth's _____ attract us to the planet's core. </li></ul> |

**3. Classify the next examples as contact or non-contact forces.**

**3.1.** When a pencil falls to the floor (gravity).



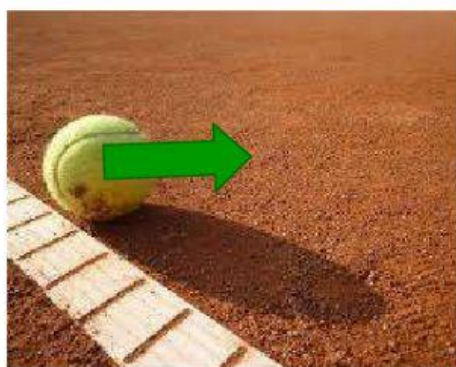
\_\_\_\_\_

**3.2.** When you kick a ball while playing football.



\_\_\_\_\_

**3.3.** A ball moving on the floor (friction).



\_\_\_\_\_

**3.4.** A magnet attracts some nails (magnetism).



\_\_\_\_\_

**3.5.** A compass always points north (magnetism).



\_\_\_\_\_

**3.6.** When you catch a ball (and stop it).



\_\_\_\_\_



#### 4. Complete the sentences and match them with their image.

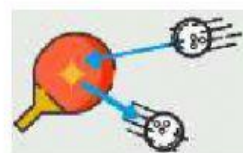
It can change s\_\_\_\_\_. •



It can change d\_\_\_\_\_. •



It can start m\_\_\_\_\_. •



#### 5. Complete the sentences and match them with their image.

malleable

elastic







rigid

**a)** An \_\_\_\_\_ object returns to its original shape when you stop applying a force to it.

**b)** A \_\_\_\_\_ object breaks when you apply a force to it.

**c)** A \_\_\_\_\_ objects changes shape but doesn't return to its original shape when you stop applying a force to it.

**6. Tick the feature of these objects regarding how they change when a force is applied.**

|   |  |
|---|--|
| <p>Hair bands    They are ELASTIC _____</p>  <p>They are RIGID _____</p> <p>They are MALLEABLE _____</p> | <p>Hair bands    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p> |
| <p>Plasticine    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p>          | <p>Balloons    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p>   |
| <p>Steel ruler    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p>         | <p>Slime    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p>      |
| <p>Clay    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p>                | <p>Rubber    It is ELASTIC _____</p>  <p>It is RIGID _____</p> <p>It is MALLEABLE _____</p>     |