

Unit 6 Natural Science Test

1. Press the correct words to complete the sentences

- Non-contact forces **touch** / **do not touch** the objects they act on.
- **Gravity** / **Magnetism** attracts all objects to the centre of the Earth.
- There is **less** / **more** gravity at the top of a tall mountain.
- Two of the same poles on magnets **attract** / **repel** each other.
- Isaac Newton is known for the theory of **magnetism** / **gravity**.

2. Press the photos which show non-contact forces



3. Press TRUE or FALSE

- Friction is a contact force. TRUE FALSE
- Buoyancy is a force which exists only in liquids. TRUE FALSE

- Friction pushes objects upwards. TRUE FALSE
- Buoyancy acts in the opposite direction of gravity. TRUE FALSE

- Friction occurs when two moving objects with different speeds come in contact. TRUE FALSE

4. Press the correct sentences

- Two smooth objects produce more friction between each other.
- Forces can produce changes in state and position.
- Gravity and buoyancy are non-contact forces.
- Contact forces are produced between two or more objects touching.
- All magnets have a north pole and a south pole.

5. Press the photos which show non-contact forces

- | | | | |
|---|---------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> pulley | <input type="checkbox"/> It tightens or joins two objects together. | <input type="checkbox"/> |
| 2 | <input type="checkbox"/> wedge | <input type="checkbox"/> It can lift or lower objects more easily. | <input type="checkbox"/> |
| 3 | <input type="checkbox"/> screw | <input type="checkbox"/> It can cut or hold objects in place. | <input type="checkbox"/> |

6. Label the photos of simple machines



Wheel and axle

Lever

Inclined plane

7. Complete the sentences

- An _____ helps move objects from one level to another.
- A _____ help transport objects more easily.
- A _____ helps push or move an object with less force.

Wheel and axle

Inclined plane

Lever

8. Put the words in the correct place



screws

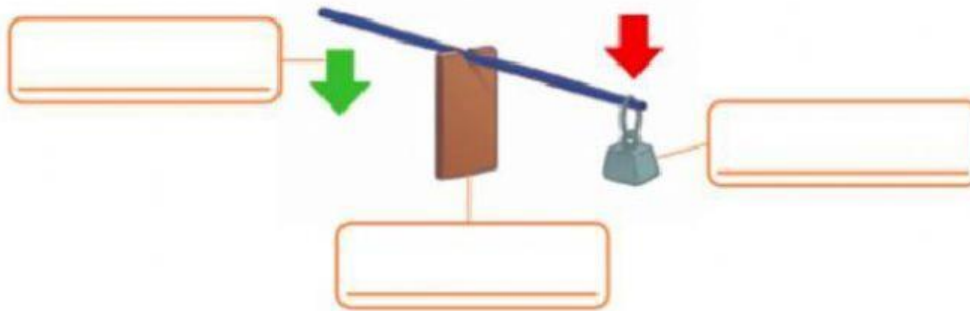
pulley

wedge

9. Press TRUE or FALSE

- A lever is a bar which moves on a fixed point.
 TRUE FALSE
- The fixed point is called the effort. TRUE FALSE
- There is one class of lever. TRUE FALSE
- The type of lever depends on the position of the fulcrum, load and effort. TRUE FALSE
- A class three lever has the effort in the middle of the lever.
 TRUE FALSE

10. Label the picture. Answer the question



- Which class of lever does the picture show?

Class:

Fulcrum

Load

Effort

11. Choose the correct word

- Many **complex** / **simple** machines require energy from sources other than people.
- Complex machines perform work **faster** / **more slowly** than simple machines.
- **Mechanical** / **Thermal** machines normally apply force to move an object.
- **Thermal** / **Information processing** machines produce or remove heat.

12. Press the correct sentences

- Complex machines consist of many simple machines working together.
- Information processing machines apply force to make large calculations.
- An engine converts energy into motion.
- Thermal machines can produce cold air.
- Mechanical machines normally have an engine.

13. Complete the table

Mobile phone

Car

Oven

Computer

Lift

Fridge

Mechanical	Thermal	Information Processing

14. Order the words and write the sentences

- function / machines / All / energy / to / need
_____.
- from / Energy / can / in nature / come / sources
_____.
- convert / Solar panels / sunlight / electricity / into
_____.
- generate / water / can / moving / electricity
_____.