

Year 6 - Unit 5 - Matter and Energy - Exam

1. Choose the correct options to complete the information:

A mixture is a combination of

In a homogeneous mixture we see the different components. An example of a homogeneous mixture is

In a heterogeneous mixture we see the different components. An example of a heterogeneous mixture is

2. Choose the correct name of each method of separating mixtures

Used to separate solid particles from a liquid or a gas

Used to separate a metal from a non-metal

Used to separate liquids of different densities

Used to separate solid particles of different sizes

Used to separate liquids with different boiling points

3. Select the sentences that are **true**

- ☐ In a solid, the particles are moving quickly
- ☐ A gas has a stable volume
- ☐ The particles of a material in liquid state have more energy than the particles in a solid state
- ☐ The particles in a solid are very close together
- ☐ Liquids have a fixed shape and a stable volume
- ☐ Solids have a fixed shape and a stable volume
- ☐ The particles of a gas move quickly in every direction

4. Drag and drop the type of change next to its definition

FERMENTATION

OXIDATION

CHANGE OF STATE

EXPANSION

CHANGE OF SHAPE

RUSTING

COMBUSTION

Milk becomes cheese

Liquid water becomes water vapour

A boy makes a plasticine (plastilina) model

A metal bar gets bigger because it is hot

A cut apple goes brown

Wood burns

Metal goes orange

5. Match the types of energy to their names

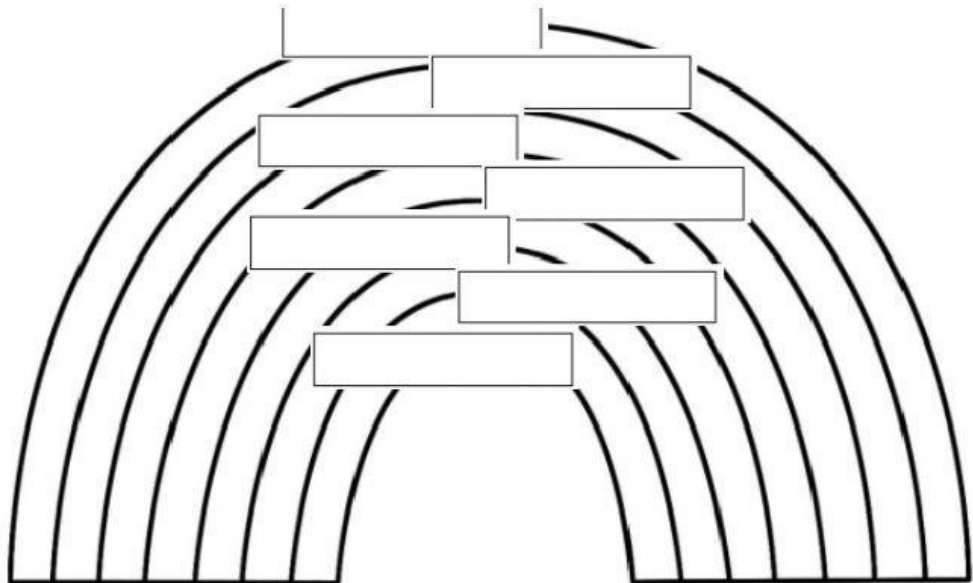
- | | |
|---|-------------------|
| ★ The energy stored in matter,
released in a chemical reaction | potential energy |
| ★ The energy of a moving object | mechanical energy |
| ★ The energy of an object at rest | chemical energy |
| ★ The sum of potential and kinetic energy | kinetic energy |
| ★ Vibrations of the air | light energy |
| ★ The energy produced by a light source | sound energy |

6. Select the correct sentences about light

- ☐ Light is a force
- ☐ Light travels at 100 000 km per second
- ☐ Light is formed of 5 colours
- ☐ Light is a form of energy
- ☐ A red object reflects all the colours of light except red light
- ☐ A red object absorbs all the colours of light except red light
- ☐ Light travels in straight lines called rays
- ☐ Light passes through transparent objects
- ☐ The colour black absorbs all the colours of light
- ☐ The colour black reflects all the colours of light

7. Drag and drop the colours into the correct order on the rainbow

RED
BLUE
INDIGO
ORANGE
GREEN
YELLOW
VIOLET



8. Fill in the gaps about heat. Use these words (you can repeat the words):

contact liquids solids rises quickly slowly energy
temperature dense sinks current gases

The temperature of an object depends on how much the particles have.
When an object is hot the particles are moving more and when it is cold the
particles are moving more

The three ways heat passes: Conduction, convection and radiation:

- Conduction:

The way heat passes through

when hot particles are in with cold particles, the hot particles pass
..... to the cold ones until all the particles have the same

- Convection:

The way heat passes through or

When the material heats up it becomes less and so it

When it cools down it This creates a cycle called a convection
.....

- Radiation:

Heat passes from one object to another with no

9. Write which image represents conduction, which represents convection and which
represents radiation

