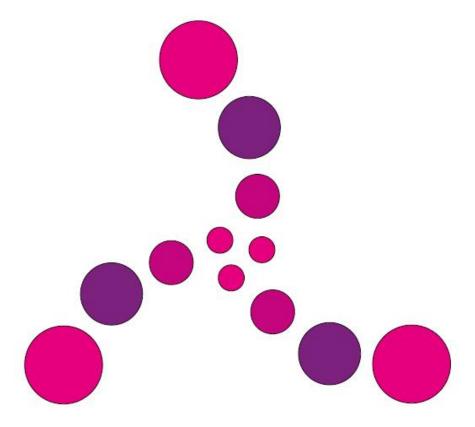


# Key Stage 3 Science Flash Cards





# Key Stage 3 Biology Flash Cards



#### Question

What organelles are found in a plant cell but not an animal cell?

KS3 Biology Cells



#### Question

What organelles are found in a plant cell but not an animal cell?

Chloroplasts, cell wall and vacuole

KS3 Biology Cells



#### Question

What is the role of the nucleus?

KS3 Biology Cells



Question

What is the role of the nucleus?

This controls what the cell does

KS3 Biology Cells



#### Question

What is the role of the cytoplasm?

KS3 Biology Cells



#### Question

What is the role of the cytoplasm?

This is where most of the chemical reactions occur

KS3 Biology Cells

Card: 3

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#### Question

What is the role of the cell membrane?

KS3 Biology Cells



#### Question

What is the role of the cell membrane?

This holds the cell together and controls what goes in and out

KS3 Biology Cells



#### Question

What is the role of the chloroplasts?

KS3 Biology Cells



#### Question

What is the role of the chloroplasts?

This contains chlorophyll and is the site of photosynthesis

KS3 Biology Cells



Question

What is photosynthesis?

KS3 Biology Cells



Question

What is photosynthesis?

The process where plants make their own food

KS3 Biology Cells



#### Question

What is the role of the cell wall?

KS3 Biology Cells



Question

What is the role of the cell wall?

To give support to the cell

KS3 Biology Cells



#### Question

What substance makes up the cell wall?

KS3 Biology Cells



#### Question

What substance makes up the cell wall?

Cellulose

KS3 Biology Cells



#### Question

A group of similar cells that come together is called?

KS3 Biology Cells



#### Question

A group of similar cells that come together is called?

A tissue

KS3 Biology Cells



#### Question

A group of different tissues that work together is called?

KS3 Biology Cells



#### Question

A group of different tissues that work together is called?

An organ

KS3 Biology Cells



#### Question

A group of organs that work together is called?

KS3 Biology Cells



#### Question

A group of organs that work together is called?

An organ system

KS3 Biology Cells



#### Question

What substances move into cells?

KS3 Biology Cells



#### Question

What substances move into cells?

Glucose and oxygen

KS3 Biology Cells



#### Question

What substances move out of cells?

KS3 Biology Cells



#### Question

What substances move out of cells?

Carbon dioxide and other waste products

KS3 Biology Cells



#### Question

By what process do materials like glucose and oxygen move into cells?

KS3 Biology Cells



#### Question

By what process do materials like glucose and oxygen move into cells?

Diffusion

KS3 Biology Cells



Question

What is meant by diffusion?

KS3 Biology Cells



Question

What is meant by diffusion?

The movement of substances from a high concentration to a low concentration

KS3 Biology Cells



#### Question

What is meant by respiration?

KS3 Biology Respiration



#### Question

What is meant by respiration?

A chemical process that releases energy from food (glucose)

KS3 Biology Respiration



#### Question

Give an example of where energy released from respiration is used.

KS3 Biology Respiration



#### Question

Give an example of where energy released from respiration is used.

Building proteins, muscle contraction and keeping warm

KS3 Biology Respiration



### Question

What is meant by aerobic respiration?

KS3 Biology Respiration



Question

What is meant by aerobic respiration?

Where oxygen is used for respiration

KS3 Biology Respiration



### Question

What is meant by anaerobic respiration?

KS3 Biology Respiration



#### Question

What is meant by anaerobic respiration?

Where respiration takes place with no oxygen

KS3 Biology Respiration



### Question

Where in the cell does respiration take place?

KS3 Biology Respiration



#### Question

Where in the cell does respiration take place?

Mitochondria

KS3 Biology Respiration



### Question

What are the products of aerobic respiration?

KS3 Biology Respiration



#### Question

What are the products of aerobic respiration?

Carbon dioxide and water

KS3 Biology Respiration



### Question

What are the reactants in aerobic respiration?

KS3 Biology Respiration



#### Question

What are the reactants in aerobic respiration?

Glucose and oxygen

KS3 Biology Respiration



### Question

Which type of respiration releases the most amount of energy?

KS3 Biology Respiration



#### Question

Which type of respiration releases the most amount of energy?

Aerobic respiration

KS3 Biology Respiration



### Question

In our bodies, when does anaerobic respiration occur?

KS3 Biology Respiration



#### Question

In our bodies, when does anaerobic respiration occur?

When we do exercise and can't get enough oxygen

KS3 Biology Respiration



### Question

What is produced in anaerobic respiration in humans?

KS3 Biology Respiration



#### Question

What is produced in anaerobic respiration in humans?

Lactic acid

KS3 Biology Respiration



### Question

What does lactic acid build up cause in humans?

KS3 Biology Respiration



#### Question

What does lactic acid build up cause in humans?

Cramp in the muscles

KS3 Biology Respiration



### Question

What does yeast produce when is carries out anaerobic respiration?

KS3 Biology Respiration



#### Question

What does yeast produce when is carries out anaerobic respiration?

Carbon dioxide and ethanol

KS3 Biology Respiration



### Question

What other name is given to the process of anaerobic respiration that produces ethanol?

KS3 Biology Respiration



#### Question

What other name is given to the process of anaerobic respiration that produces ethanol?

Fermentation

KS3 Biology Respiration



### Question

What are the main food groups of a balanced diet?

KS3 Biology Food and Digestion



#### Question

What are the main food groups of a balanced diet?

Carbohydrates, proteins, fats, vitamins, minerals, water and fibre

KS3 Biology Food and Digestion



### Question

What are carbohydrates needed for?

KS3 Biology Food and Digestion



#### Question

What are carbohydrates needed for?

Energy - active and growing.

KS3 Biology Food and Digestion



Question

What are proteins needed for?

KS3 Biology Food and Digestion



Question

What are proteins needed for?

Growth and repair

KS3 Biology Food and Digestion



Question

What are fats needed for?

KS3 Biology Food and Digestion



Question

What are fats needed for?

Store of energy, insulation

KS3 Biology Food and Digestion



Question

Why is fibre needed in your diet?

KS3 Biology Food and Digestion



Question

Why is fibre needed in your diet?

Helps move food through your digestive system

KS3 Biology Food and Digestion



### Question

An unbalanced diet, where you take in more energy than you use up can result in?

KS3 Biology Food and Digestion



#### Question

An unbalanced diet, where you take in more energy than you use up can result in?

Obesity

KS3 Biology Food and Digestion



### Question

Obesity can lead to which health problems?

KS3 Biology Food and Digestion



#### Question

Obesity can lead to which health problems?

High blood pressure, arthritis, heart disease

KS3 Biology Food and Digestion



### Question

What effect can a lack of food have upon a person?

KS3 Biology Food and Digestion



#### Question

What effect can a lack of food have upon a person?

Slow growth, more prone to infection and irregular periods in women

KS3 Biology Food and Digestion



### Question

What does a lack of vitamin C lead to?

KS3 Biology Food and Digestion



Question

What does a lack of vitamin C lead to?

Scurvy

KS3 Biology Food and Digestion



Question

What is meant by digestion?

KS3 Biology Food and Digestion



Question

What is meant by digestion?

The breakdown of food

KS3 Biology Food and Digestion



### Question

What are the two types of digestion by which food is broken down in humans?

KS3 Biology Food and Digestion



#### Question

What are the two types of digestion by which food is broken down in humans?

Chemical and mechanical

KS3 Biology Food and Digestion



### Question

In the mouth, what is produced to help aid digestion?

KS3 Biology Food and Digestion



#### Question

In the mouth, what is produced to help aid digestion?

Saliva which contains the enzyme amylase

KS3 Biology Food and Digestion



### Question

What is the name of the food pipe that links the mouth and stomach?

KS3 Biology Food and Digestion



#### Question

What is the name of the food pipe that links the mouth and stomach?

Oesophagus

KS3 Biology Food and Digestion



### Question

What is added to our food in the stomach to aid digestion?

KS3 Biology Food and Digestion



#### Question

What is added to our food in the stomach to aid digestion?

Hydrochloric acid and protease enzymes

KS3 Biology Food and Digestion



### Question

What is the role of the hydrochloric acid in the stomach?

KS3 Biology Food and Digestion



#### Question

What is the role of the hydrochloric acid in the stomach?

Break down food and kill harmful bacteria

KS3 Biology Food and Digestion



### Question

What is produced by the liver and used in the process of digestion?

KS3 Biology Food and Digestion



#### Question

What is produced by the liver and used in the process of digestion?

Bile

KS3 Biology Food and Digestion



### Question

What role does bile have in the digestive system?

KS3 Biology Food and Digestion



#### Question

What role does bile have in the digestive system?

Neutralises the stomach acid and emulsifies fats

KS3 Biology Food and Digestion



### Question

What happens in the large intestine during the digestion?

KS3 Biology Food and Digestion



#### Question

What happens in the large intestine during the digestion?

Water is absorbed

KS3 Biology Food and Digestion



### Question

What happens in the small intestine during the digestion?

KS3 Biology Food and Digestion



#### Question

What happens in the small intestine during the digestion?

Produces more enzymes (lipase, carbohydrase and protease) and this is where food is absorbed into the blood stream

KS3 Biology Food and Digestion



### Question

How is the small intestine adapted to aid absorption of food?

KS3 Biology Food and Digestion



#### Question

How is the small intestine adapted to aid absorption of food?

Has millions of villi that increase the surface area for absorption

KS3 Biology Food and Digestion



### Question

Why do villi help with absorption of food in the small intestine?

KS3 Biology Food and Digestion



#### Question

Why do villi help with absorption of food in the small intestine?

They provide a large surface area, have thin walls and have a rich blood supply

KS3 Biology Food and Digestion



### Question

The digestive system is helped by bacteria, how?

KS3 Biology Food and Digestion



#### Question

The digestive system is helped by bacteria, how?

They produce enzymes, useful hormones and vitamins. They also reduce the chance of harmful bacteria growing in your intestines.

KS3 Biology Food and Digestion



### Question

What is the role of the skeleton?

KS3 Biology Muscles and Bone



#### Question

What is the role of the skeleton?

To provide support, protection, movement and produce blood cells

KS3 Biology Muscles and Bone



Question

What tissues make up bone?

KS3 Biology Muscles and Bone



#### Question

What tissues make up bone?

Outer layer - hard and strong tissue. Inner layer - spongy and strong.

KS3 Biology Muscles and Bone



Question

What do tendons do?

KS3 Biology Muscles and Bone



Question

What do tendons do?

They attach muscles to bone which helps the bone move.

KS3 Biology Muscles and Bone



### Question

Muscles are found in pairs. What are these pairs called?

KS3 Biology Muscles and Bone



#### Question

Muscles are found in pairs. What are these pairs called?

Antagonistic

KS3 Biology Muscles and Bone



### Question

What is meant by antagonistic pairs in muscles?

KS3 Biology Muscles and Bone



#### Question

What is meant by antagonistic pairs in muscles?

Muscles that work together. As one contracts, the other relaxes and vice versa.

KS3 Biology Muscles and Bone



### Question

Where is the diaphragm found?

KS3 Biology Breathing



Question

Where is the diaphragm found?

Underneath the rib cage

KS3 Biology Breathing



### Question

What is the role of the diaphragm?

KS3 Biology Breathing



#### Question

What is the role of the diaphragm?

It is a muscle that moves up (relaxed stage) and moves down (contracted state) to help air move into the lungs

KS3 Biology Breathing



### Question

What is the name of the pipe that connects the mouth and lungs?

KS3 Biology Breathing



#### Question

What is the name of the pipe that connects the mouth and lungs?

Trachea

KS3 Biology Breathing



### Question

The trachea splits into two tubes, called?

KS3 Biology Breathing



#### Question

The trachea splits into two tubes, called?

Bronchi

KS3 Biology Breathing



### Question

The small air sacs in the lungs are called?

KS3 Biology Breathing



#### Question

The small air sacs in the lungs are called?

Alveoli

KS3 Biology Breathing



### Question

In gaseous exchange, what are the main gases that diffuse in and out of the blood steam?

KS3 Biology Breathing



#### Question

In gaseous exchange, what are the main gases that diffuse in and out of the blood steam?

In oxygen, out carbon dioxide

KS3 Biology Breathing



### Question

How are the lungs adapted for gaseous exchange?

KS3 Biology Breathing



#### Question

How are the lungs adapted for gaseous exchange?

They have lots of alveoli that provide a large surface area, they are moist and also have a very good blood supply

KS3 Biology Breathing



### Question

What happens, in terms of pressure, when we breathe in and out?

KS3 Biology Breathing



#### Question

What happens, in terms of pressure, when we breathe in and out?

When the diaphragm is down, the volume of the lungs increases which causes the pressure inside to decrease. This causes the air to move in. When the diaphragm relaxes, the opposite occurs and air leaves the lungs.

KS3 Biology Breathing



### Question

Why does our breathing rate increase with exercise?

KS3 Biology Breathing



#### Question

Why does our breathing rate increase with exercise?

More oxygen is needed for respiration

KS3 Biology Breathing



Question

What is asthma?

KS3 Biology Breathing



Question

What is asthma?

Where a person's lungs are sensitive to certain things like pollen. The muscles around the bronchioles respond by contracting and this narrows the person's airways.

KS3 Biology Breathing



### Question

What is the male human sex cell?

KS3 Biology Reproduction



Question

What is the male human sex cell?

Sperm

KS3 Biology Reproduction



### Question

What is the female human sex cell?

KS3 Biology Reproduction



Question

What is the female human sex cell?

Ovum/Egg

KS3 Biology Reproduction



Question

Where is sperm made?

KS3 Biology Reproduction



Question

Where is sperm made?

In the testes

KS3 Biology Reproduction



Question

What is sperm mixed with?

KS3 Biology Reproduction



Question

What is sperm mixed with?

Semen

KS3 Biology Reproduction



### Question

What are the sperm and egg cells also referred to as?

KS3 Biology Reproduction



#### Question

What are the sperm and egg cells also referred to as?

Gametes (sex cells)

KS3 Biology Reproduction



### Question

How often is an ovum (egg cell) released?

KS3 Biology Reproduction



Question

How often is an ovum (egg cell) released?

28 days

KS3 Biology Reproduction



### Question

Where are egg cells (ovum) found?

KS3 Biology Reproduction



Question

Where are egg cells (ovum) found?

In the ovaries

KS3 Biology Reproduction



Question

How long is the menstrual cycle?

KS3 Biology Reproduction



Question

How long is the menstrual cycle?

28 days

KS3 Biology Reproduction



### Question

What happens during the first stage of the menstrual cycle?

KS3 Biology Reproduction



#### Question

What happens during the first stage of the menstrual cycle?

The lining breaks down

KS3 Biology Reproduction



### Question

Why does the uterus need to be prepared during the menstrual cycle?

KS3 Biology Reproduction



#### Question

Why does the uterus need to be prepared during the menstrual cycle?

So that it is ready to receive a fertilised egg

KS3 Biology Reproduction



### Question

On approximately which day of the menstrual cycle is the egg (ovum) released?

KS3 Biology Reproduction



Question

On approximately which day of the menstrual cycle is the egg (ovum) released?

Day 14

KS3 Biology Reproduction



### Question

What name is given to the release of an egg from the ovary?

KS3 Biology Reproduction



#### Question

What name is given to the release of an egg from the ovary?

Ovulation

KS3 Biology Reproduction



### Question

What name is given to process where the nuclei of the sperm and egg (ovum) cells join?

KS3 Biology Reproduction



#### Question

What name is given to process where the nuclei of the sperm and egg (ovum) cells join?

Fertilisation

KS3 Biology Reproduction



### Question

What allows the exchange of food, oxygen and waste between the mother and child?

KS3 Biology Reproduction



#### Question

What allows the exchange of food, oxygen and waste between the mother and child?

Placenta

KS3 Biology Reproduction



### Question

What name is given to the liquid that surrounds the developing foetus?

KS3 Biology Reproduction



#### Question

What name is given to the liquid that surrounds the developing foetus?

Amniotic fluid

KS3 Biology Reproduction



### Question

What is the role of the amniotic fluid?

KS3 Biology Reproduction



Question

What is the role of the amniotic fluid?

To give protection

KS3 Biology Reproduction



### Question

What is meant by photosynthesis?

KS3 Biology Plants



#### Question

What is meant by photosynthesis?

A chemical process that takes place in every green plant that produces food.

KS3 Biology Plants



### Question

Photosynthesis produces what food?

KS3 Biology Plants



### Question

Photosynthesis produces what food?

Glucose

KS3 Biology Plants



### Question

What does a plant uses glucose for?

KS3 Biology Plants



#### Question

What does a plant uses glucose for?

Respiration, growth, convert to starch, form proteins

KS3 Biology Plants



### Question

What is needed for photosynthesis?

KS3 Biology Plants



#### Question

What is needed for photosynthesis?

Light, chlorophyll, water and carbon dioxide

KS3 Biology Plants



### Question

What is the word equation for photosynthesis?

KS3 Biology Plants



#### Question

What is the word equation for photosynthesis?

Carbon dioxide + Water ==> Oxygen + Glucose

KS3 Biology Plants



### Question

How is a leaf adapted for photosynthesis?

KS3 Biology Plants



#### Question

How is a leaf adapted for photosynthesis?

Large surface area to absorb light. Chloroplasts near the top of the leaf to absorb more light. Stomata at the base of the leaf for gaseous exchange.

KS3 Biology Plants



### Question

Which part of a flower are the male parts?

KS3 Biology Plants



#### Question

Which part of a flower are the male parts?

Stamen

KS3 Biology Plants



Question

The stamen is made up of?

KS3 Biology Plants



Question

The stamen is made up of?

Anther and filament

KS3 Biology Plants



### Question

Which part of the flower are the female parts?

KS3 Biology Plants



Question

Which part of the flower are the female parts?

Carpels

KS3 Biology Plants



Question

The carpels are made up of?

KS3 Biology Plants



Question

The carpels are made up of?

Stigma, style and ovary

KS3 Biology Plants



Question

What is the role of sepals?

KS3 Biology Plants



Question

What is the role of sepals?

Protection while the flower is in bud

KS3 Biology Plants



Question

What is the role of the petals?

KS3 Biology Plants



Question

What is the role of the petals?

To attract insects for pollination

KS3 Biology Plants



### Question

What are the different types of pollination?

KS3 Biology Plants



### Question

What are the different types of pollination?

Self pollination, cross pollination, insect pollination and wind pollination

KS3 Biology Plants



### Question

What are the different methods of seed dispersal?

KS3 Biology Plants



### Question

What are the different methods of seed dispersal?

Wind, animal, explosions and drop & roll.

KS3 Biology Plants



### Question

In a food chain, the direction of the arrow shows?

KS3 Biology Ecology



### Question

In a food chain, the direction of the arrow shows?

The direction of energy flow

KS3 Biology Ecology



### Question

What name is given to all plants in a food chain/web?

KS3 Biology Ecology



### Question

What name is given to all plants in a food chain/web?

Producer

KS3 Biology Ecology



### Question

What is meant by the term herbivore?

KS3 Biology Ecology



### Question

What is meant by the term herbivore?

An animal that eats plants only

KS3 Biology Ecology



### Question

What is meant by the term carnivore?

KS3 Biology Ecology



Question

What is meant by the term carnivore?

An animal that eats animals only

KS3 Biology Ecology



### Question

What is meant by the term primary consumer?

KS3 Biology Ecology



### Question

What is meant by the term primary consumer?

An animal that eats producers

KS3 Biology Ecology



### Question

What is meant by the term secondary consumer?

KS3 Biology Ecology



### Question

What is meant by the term secondary consumer?

An animal that eats primary consumers

KS3 Biology Ecology



### Question

What is meant by the term omnivore?

KS3 Biology Ecology



### Question

What is meant by the term omnivore?

An animal that eats both plants and animals

KS3 Biology Ecology



### Question

Where are chromosomes found?

KS3 Biology Genetics



### Question

Where are chromosomes found?

In the nucleus of a cell

KS3 Biology Genetics



### Question

What are chromosomes made up of?

KS3 Biology Genetics



### Question

What are chromosomes made up of?

Long, coiled lengths of DNA

KS3 Biology Genetics



### Question

A short section of a chromosome is known as?

KS3 Biology Genetics



### Question

A short section of a chromosome is known as?

A gene

KS3 Biology Genetics



Question

What do genes control?

KS3 Biology Genetics



Question

What do genes control?

Characteristics

KS3 Biology Genetics



### Question

How many chromosomes do humans have?

KS3 Biology Genetics



### Question

How many chromosomes do humans have?

46 (23 pairs)

KS3 Biology Genetics



## Question

Differences between the same species is known by what term?

KS3 Biology Genetics



#### Question

Differences between the same species is known by what term?

Variation

KS3 Biology Genetics



#### Question

Characteristics can be a result of what two factors?

KS3 Biology Genetics



#### Question

Characteristics can be a result of what two factors?

Genetics and environmental

KS3 Biology Genetics



#### Question

Blood group is an example of what type of variation?

KS3 Biology Genetics



#### Question

Blood group is an example of what type of variation?

Discontinuous

KS3 Biology Genetics



## Question

Height is an example of what type of variation?

KS3 Biology Genetics



#### Question

Height is an example of what type of variation?

Continuous

KS3 Biology Genetics



#### Question

What do plants and animals compete for?

KS3 Biology Genetics



#### Question

What do plants and animals compete for?

Space, food, water

KS3 Biology Genetics

## GCSE Revision Resources



Please find enclosed a range of revision resources.

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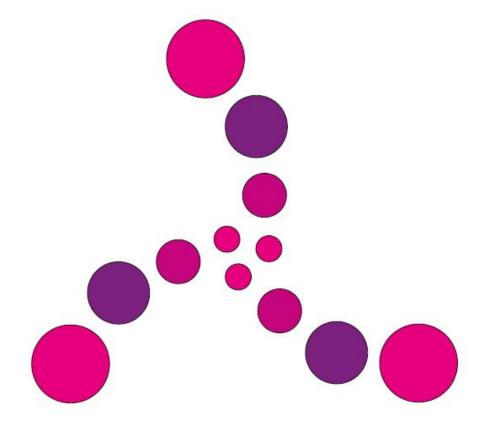
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# Key Stage 3 Chemistry Flash Cards



#### Question

What are the three states of matter

KS3 Chemistry Matter



Question

What are the three states of matter

Solid, liquid and gas

KS3 Chemistry Matter



## Question

Which state(s) of matter has a definite volume?

KS3 Chemistry Matter



Question

Which state(s) of matter has a definite volume?

Solid and Liquid

KS3 Chemistry Matter



## Question

Which state(s) of matter has a high density?

KS3 Chemistry Matter



Question

Which state(s) of matter has a high density?

Solid

KS3 Chemistry Matter



## Question

Which state(s) of matter has a shape that matches the container?

KS3 Chemistry Matter



#### Question

Which state(s) of matter has a shape that matches the container?

Liquid

KS3 Chemistry Matter



#### Question

Which state(s) of matter are not easily squashed?

KS3 Chemistry Matter



Question

Which state(s) of matter are not easily squashed?

Solids and Liquids

KS3 Chemistry Matter



## Question

Which state(s) of matter doesn't flow?

KS3 Chemistry Matter



Question

Which state(s) of matter doesn't flow?

Solids

KS3 Chemistry Matter



#### Question

Which state(s) of matter are known as fluids?

KS3 Chemistry Matter



Question

Which state(s) of matter are known as fluids?

Liquids and gases

KS3 Chemistry Matter



## Question

Which state(s) of matter will always fill the container they are in?

KS3 Chemistry Matter



#### Question

Which state(s) of matter will always fill the container they are in?

Gas

KS3 Chemistry Matter



#### Question

Which state(s) of matter are made of particles with the least amount of energy?

KS3 Chemistry Matter



#### Question

Which state(s) of matter are made of particles with the least amount of energy?

Solid

KS3 Chemistry Matter



#### Question

What are the forces of attraction between the particles in a solid like?

KS3 Chemistry Matter



#### Question

What are the forces of attraction between the particles in a solid like?

Very strong

KS3 Chemistry Matter



## Question

How does temperature affect pressure?

KS3 Chemistry Matter



#### Question

How does temperature affect pressure?

Increasing the temperature, increases the pressure

KS3 Chemistry Matter



#### Question

How does temperature affect a particles energy?

KS3 Chemistry Matter



#### Question

How does temperature affect a particles energy?

Increasing the temperature, increases the kinetic energy of each particle

KS3 Chemistry Matter



### Question

How can you increase the pressure on a liquid?

KS3 Chemistry Matter



#### Question

How can you increase the pressure on a liquid?

Increase the temperature, reduce the volume

KS3 Chemistry Matter



### Question

What is meant by the term diffusion?

KS3 Chemistry Matter



#### Question

What is meant by the term diffusion?

The spreading out of particles from a high concentration to a low concentration

KS3 Chemistry Matter



### Question

What is the change of state called when a solid changes to a liquid?

KS3 Chemistry Matter



#### Question

What is the change of state called when a solid changes to a liquid?

Melting

KS3 Chemistry Matter



### Question

What is the change of state called when a gas changes to a liquid?

KS3 Chemistry Matter



### Question

What is the change of state called when a gas changes to a liquid?

Condensation

KS3 Chemistry Matter



### Question

What is the change of state called when a liquid changes to a solid?

KS3 Chemistry Matter



#### Question

What is the change of state called when a liquid changes to a solid?

Freezing

KS3 Chemistry Matter



### Question

What is the change of state called when a liquid to a gas?

KS3 Chemistry Matter



#### Question

What is the change of state called when a liquid to a gas?

Evaporation

KS3 Chemistry Matter



### Question

At a substances boiling point, what is the energy being used for?

KS3 Chemistry Matter



#### Question

At a substances boiling point, what is the energy being used for?

To weaken the forces between particles.

KS3 Chemistry Matter



### Question

A substance that is made up of one type of atom only is called?

KS3 Chemistry Matter



#### Question

A substance that is made up of one type of atom only is called?

An element

KS3 Chemistry Matter



### Question

What is the chemical symbol for copper?

KS3 Chemistry Matter



Question

What is the chemical symbol for copper?

Cu

KS3 Chemistry Matter



### Question

What is the chemical symbol for iron?

KS3 Chemistry Matter



Question

What is the chemical symbol for iron?

Fe

KS3 Chemistry Matter



### Question

What is the chemical symbol for oxygen?

KS3 Chemistry Matter



#### Question

What is the chemical symbol for oxygen?

0

KS3 Chemistry Matter



### Question

What is the chemical symbol nitrogen?

KS3 Chemistry Matter



#### Question

What is the chemical symbol nitrogen?

N

KS3 Chemistry Matter



### Question

What name is given to the vertical columns of the periodic table?

KS3 Chemistry Matter



#### Question

What name is given to the vertical columns of the periodic table?

Groups

KS3 Chemistry Matter



### Question

What name is given to the horizontal rows of the periodic table?

KS3 Chemistry Matter



#### Question

What name is given to the horizontal rows of the periodic table?

Periods

KS3 Chemistry Matter



### Question

In the periodic table, in which groups would you find the most reactive elements?

KS3 Chemistry Matter



#### Question

In the periodic table, in which groups would you find the most reactive elements?

1, 2 and 7

KS3 Chemistry Matter



### Question

What are the elements in group 0 known as?

KS3 Chemistry Matter



Question

What are the elements in group 0 known as?

The noble gases

KS3 Chemistry Matter



#### Question

How does the reactivity of the elements change as you move down Group 1 of the periodic table?

KS3 Chemistry Matter



#### Question

How does the reactivity of the elements change as you move down Group 1 of the periodic table?

Reactivity increases

KS3 Chemistry Matter



#### Question

How does the reactivity of the elements change as you move down Group 7 of the periodic table?

KS3 Chemistry Matter



### Question

How does the reactivity of the elements change as you move down Group 7 of the periodic table?

Reactivity decreases

KS3 Chemistry Matter



### Question

A substance that is made up of two or more different elements, chemical combined is called?

KS3 Chemistry Matter



#### Question

A substance that is made up of two or more different elements, chemical combined is called?

Compound

KS3 Chemistry Matter



### Question

When Magnesium reacts with oxygen what is formed?

KS3 Chemistry Matter



#### Question

When Magnesium reacts with oxygen what is formed?

Magnesium oxide

KS3 Chemistry Matter



### Question

When Iron reacts with Sulfur what is formed?

KS3 Chemistry Matter



#### Question

When Iron reacts with Sulfur what is formed?

Iron Sulfide

KS3 Chemistry Matter



### Question

When sodium reacts with chlorine what is formed?

KS3 Chemistry Matter



#### Question

When sodium reacts with chlorine what is formed?

Sodium Chloride

KS3 Chemistry Matter



### Question

What elements are found in Iron Sulfide?

KS3 Chemistry Matter



#### Question

What elements are found in Iron Sulfide?

Iron and Sulfur

KS3 Chemistry Matter



### Question

What elements are found in Carbon Dioxide?

KS3 Chemistry Matter



#### Question

What elements are found in Carbon Dioxide?

Carbon and Oxygen

KS3 Chemistry Matter



### Question

What elements are found in Calcium Carbonate?

KS3 Chemistry Matter



#### Question

What elements are found in Calcium Carbonate?

Calcium, carbon and oxygen

KS3 Chemistry Matter



### Question

What is meant by the term mixture?

KS3 Chemistry Matter



#### Question

What is meant by the term mixture?

A substance that contains two or more different substances that can be separated easily using physical methods.

KS3 Chemistry Matter



Question

Give an example of a mixture

KS3 Chemistry Matter



Question

Give an example of a mixture

Air, salt water, sandy water

KS3 Chemistry Matter



### Question

A solid that is being dissolved is also known as?

KS3 Chemistry Matter



#### Question

A solid that is being dissolved is also known as?

A solute

KS3 Chemistry Matter



### Question

When dissolving a substance in a liquid, the liquid is known as?

KS3 Chemistry Matter



#### Question

When dissolving a substance in a liquid, the liquid is known as?

The solvent

KS3 Chemistry Matter



### Question

Something that can dissolve is known as?

KS3 Chemistry Matter



#### Question

Something that can dissolve is known as?

Soluble

KS3 Chemistry Matter



### Question

Something that does not dissolve is known as?

KS3 Chemistry Matter



#### Question

Something that does not dissolve is known as?

Insoluble

KS3 Chemistry Matter



### Question

What is meant by a saturated solution?

KS3 Chemistry Matter



#### Question

What is meant by a saturated solution?

A solution that will not dissolve any more solute at that temperature.

KS3 Chemistry Matter



### Question

What are the main steps in separating rock salt?

KS3 Chemistry Matter



#### Question

What are the main steps in separating rock salt?

Crush using a pestle and mortar, dissolve in water, filter through a funnel and evaporate the water off. This leaves the salt behind.

KS3 Chemistry Matter



### Question

What is the name of the separation technique used to separate dyes in inks?

KS3 Chemistry Matter



#### Question

What is the name of the separation technique used to separate dyes in inks?

Chromatography

KS3 Chemistry Matter



### Question

What method can be used to separate coloured ink from water?

KS3 Chemistry Matter



#### Question

What method can be used to separate coloured ink from water?

Distillation

KS3 Chemistry Matter



### Question

What is the name of the method used to separate mixed liquids?

KS3 Chemistry Matter



#### Question

What is the name of the method used to separate mixed liquids?

Fractional distillation

KS3 Chemistry Matter



### Question

How can you test the purity of a substance?

KS3 Chemistry Matter



#### Question

How can you test the purity of a substance?

It will have a fixed boiling and melting point.

KS3 Chemistry Matter



### Question

What are the main properties of metals?

KS3 Chemistry Metals



#### Question

What are the main properties of metals?

Conduct electricity, conduct heat, strong, tough, shiny when polished and sonorous, malleable, ductile, high mp and high bp, high density

KS3 Chemistry Metals



Question

Which metals are magnetic?

KS3 Chemistry Metals



Question

Which metals are magnetic?

Iron, Cobalt and Nickel

KS3 Chemistry Metals



Question

How is an alloy formed?

KS3 Chemistry Metals



Question

How is an alloy formed?

When a metal is mixed with other metals.

KS3 Chemistry Metals



#### Question

What are the main properties of polymers?

KS3 Chemistry Metals



#### Question

What are the main properties of polymers?

Flexible, low density, insulators of heat, insulators of electricity and easily moulded

KS3 Chemistry Metals



### Question

What does not change in a chemical reaction?

KS3 Chemistry Reactions



#### Question

What does not change in a chemical reaction?

Mass

KS3 Chemistry Reactions



### Question

What three things are needed for combustion?

KS3 Chemistry Reactions



#### Question

What three things are needed for combustion?

Oxygen, fuel and heat

KS3 Chemistry Reactions



### Question

What are the products of combustion?

KS3 Chemistry Reactions



#### Question

What are the products of combustion?

Carbon dioxide and water

KS3 Chemistry Reactions



### Question

What is meant by the term oxidation?

KS3 Chemistry Reactions



Question

What is meant by the term oxidation?

Gain of oxygen

KS3 Chemistry Reactions



### Question

What is meant by the term thermal decomposition?

KS3 Chemistry Reactions



#### Question

What is meant by the term thermal decomposition?

Breaking down a substance using heat

KS3 Chemistry Reactions



### Question

A reaction that gives out heat is called?

KS3 Chemistry Reactions



Question

A reaction that gives out heat is called?

An exothermic reaction

KS3 Chemistry Reactions



### Question

A reaction that takes heat in is called?

KS3 Chemistry Reactions



#### Question

A reaction that takes heat in is called?

An endothermic reaction

KS3 Chemistry Reactions



Question

What is meant by a catalyst?

KS3 Chemistry Reactions



#### Question

What is meant by a catalyst?

A substance that speeds up a reaction without being chemically changed or used up in the reaction itself.

KS3 Chemistry Reactions



#### Question

How does a catalyst affect the energy needed for a reaction to take place?

KS3 Chemistry Reactions



#### Question

How does a catalyst affect the energy needed for a reaction to take place?

It lowers the energy needed

KS3 Chemistry Reactions



Question

What is the range of pH scale?

KS3 Chemistry Acids



Question

What is the range of pH scale?

0 to 14

KS3 Chemistry Acids



Question

What pH do acids have?

KS3 Chemistry Acids



Question

What pH do acids have?

Below 7

KS3 Chemistry Acids



Question

What pH do alkalis have?

KS3 Chemistry Acids



Question

What pH do alkalis have?

Above 7

KS3 Chemistry Acids



#### Question

What pH do neutral substances have?

KS3 Chemistry Acids



Question

What pH do neutral substances have?

pH 7

KS3 Chemistry Acids



#### Question

What is used to determine if a substance is an acid or alkali?

KS3 Chemistry Acids



#### Question

What is used to determine if a substance is an acid or alkali?

Indicator

KS3 Chemistry Acids



#### Question

Give the name of an indicator used to show the pH of a material by a colour change.

KS3 Chemistry Acids



#### Question

Give the name of an indicator used to show the pH of a material by a colour change.

Universal indicator

KS3 Chemistry Acids



### Question

What is formed in a neutralisation reaction?

KS3 Chemistry Acids



#### Question

What is formed in a neutralisation reaction?

Salt + Water

KS3 Chemistry Acids



### Question

When hydrochloric acid reacts with sodium hydroxide what salt is formed?

KS3 Chemistry Acids



#### Question

When hydrochloric acid reacts with sodium hydroxide what salt is formed?

Sodium Chloride

KS3 Chemistry Acids



### Question

When Sulfuric acid reacts with potassium hydroxide what salt is formed?

KS3 Chemistry Acids



#### Question

When Sulfuric acid reacts with potassium hydroxide what salt is formed?

Potassium Sulfate

KS3 Chemistry Acids



### Question

When nitric acid reacts with sodium hydroxide what salt is formed?

KS3 Chemistry Acids



#### Question

When nitric acid reacts with sodium hydroxide what salt is formed?

Sodium Nitrate

KS3 Chemistry Acids



#### Question

In the reactivity series, which metals are more reactive than carbon?

KS3 Chemistry Reactivity



#### Question

In the reactivity series, which metals are more reactive than carbon?

Potassium, Sodium, Calcium, Magnesium, Aluminium

KS3 Chemistry Reactivity



#### Question

In the reactivity series, which metals are more reactive than hydrogen but less reactive than carbon?

KS3 Chemistry Reactivity



#### Question

In the reactivity series, which metals are more reactive than hydrogen but less reactive than carbon?

Zinc, iron and lead

KS3 Chemistry Reactivity



#### Question

In the reactivity series, which metals are less reactive than hydrogen?

KS3 Chemistry Reactivity



#### Question

In the reactivity series, which metals are less reactive than hydrogen?

Copper, silver and gold

KS3 Chemistry Reactivity



### Question

What is meant by the term ore?

KS3 Chemistry Reactivity



Question

What is meant by the term ore?

A rock that contains metals

KS3 Chemistry Reactivity



### Question

When a metal reacts with an acid what is formed?

KS3 Chemistry Reactivity



#### Question

When a metal reacts with an acid what is formed?

Salt + Hydrogen

KS3 Chemistry Reactivity



### Question

When a metal reacts with oxygen what is formed?

KS3 Chemistry Reactivity



#### Question

When a metal reacts with oxygen what is formed?

Metal oxide

KS3 Chemistry Reactivity



### Question

What is formed when magnesium reacts with hydrochloric acid?

KS3 Chemistry Reactivity



#### Question

What is formed when magnesium reacts with hydrochloric acid?

Magnesium chloride + Hydrogen

KS3 Chemistry Reactivity



### Question

What pH do metal oxides have?

KS3 Chemistry Reactivity



Question

What pH do metal oxides have?

Alkaline

KS3 Chemistry Reactivity



### Question

What pH do non-metal oxides have?

KS3 Chemistry Reactivity



Question

What pH do non-metal oxides have?

Acidic

KS3 Chemistry Reactivity



### Question

What is meant by a displacement reaction?

KS3 Chemistry Reactivity



#### Question

What is meant by a displacement reaction?

A reaction where a more reactive metal displaces a less reactive metal from its compound

KS3 Chemistry Reactivity



### Question

What metals are found in the core of the Earth?

KS3 Chemistry Earth



#### Question

What metals are found in the core of the Earth?

Iron and Nickel

KS3 Chemistry Earth



### Question

What is the name given to the outer layer of the Earth?

KS3 Chemistry Earth



#### Question

What is the name given to the outer layer of the Earth?

Crust

KS3 Chemistry Earth



### Question

What is the layer of the Earth called that is below the crust?

KS3 Chemistry Earth



#### Question

What is the layer of the Earth called that is below the crust?

Mantle

KS3 Chemistry Earth



### Question

The surface of the Earth is split up into what?

KS3 Chemistry Earth



Question

The surface of the Earth is split up into what?

Tectonic plates

KS3 Chemistry Earth



### Question

What events occur where tectonic plates meet?

KS3 Chemistry Earth



#### Question

What events occur where tectonic plates meet?

Volcanoes and Earthquakes

KS3 Chemistry Earth



### Question

What are the three types of rock?

KS3 Chemistry Earth



Question

What are the three types of rock?

Igneous, metamorphic and sedimentary

KS3 Chemistry Earth



### Question

Which type of rock contains crystals?

KS3 Chemistry Earth



Question

Which type of rock contains crystals?

Igneous

KS3 Chemistry Earth



### Question

Marble is an example of which type of rock?

KS3 Chemistry Earth



### Question

Marble is an example of which type of rock?

Metamorphic

KS3 Chemistry Earth



### Question

Igneous rocks with large crystals are called?

KS3 Chemistry Earth



#### Question

Igneous rocks with large crystals are called?

Intrusive igneous rocks

KS3 Chemistry Earth



### Question

Limestone is an example of which type of rock?

KS3 Chemistry Earth



#### Question

Limestone is an example of which type of rock?

Sedimentary

KS3 Chemistry Earth



### Question

In which type(s) of rock are fossils found?

KS3 Chemistry Earth



#### Question

In which type(s) of rock are fossils found?

Sedimentary and metamorphic

KS3 Chemistry Earth



Question

What is meant by erosion?

KS3 Chemistry Earth



Question

What is meant by erosion?

The wearing down of rocks

KS3 Chemistry Earth



### Question

What is meant by weathering?

KS3 Chemistry Earth

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#### Question

What is meant by weathering?

The breaking down of rocks into smaller bits

KS3 Chemistry Earth



### Question

The laying down of sediment is called?

KS3 Chemistry Earth



Question

The laying down of sediment is called?

Deposition

KS3 Chemistry Earth



### Question

What conditions are required for a metamorphic rock to be formed?

KS3 Chemistry Earth



### Question

What conditions are required for a metamorphic rock to be formed?

Heat and pressure

KS3 Chemistry Earth



Question

Why is recycling beneficial?

KS3 Chemistry Materials



Question

Why is recycling beneficial?

Less waste, less energy from fossil fuels needed, less resources needed, saves money

KS3 Chemistry Materials



### Question

What is meant by photosynthesis?

KS3 Chemistry Materials



#### Question

What is meant by photosynthesis?

Plants make their own food

KS3 Chemistry Materials



### Question

What process causes carbon dioxide to be removed from the atmosphere by plants?

KS3 Chemistry Materials



### Question

What process causes carbon dioxide to be removed from the atmosphere by plants?

Photosynthesis

KS3 Chemistry Materials



### Question

What processes causes carbon dioxide to be released into the atmosphere?

KS3 Chemistry Materials



#### Question

What processes causes carbon dioxide to be released into the atmosphere?

Combustion, Deforestation and Respiration

KS3 Chemistry Materials



### Question

What are the two main gases in the atmosphere?

KS3 Chemistry Materials



### Question

What are the two main gases in the atmosphere?

Nitrogen and Oxygen

KS3 Chemistry Materials



### Question

The release of which gas leads to global warming?

KS3 Chemistry Materials



Question

The release of which gas leads to global warming?

Carbon dioxide

KS3 Chemistry Materials



### Question

The release of which gas leads to acid rain?

KS3 Chemistry Materials



#### Question

The release of which gas leads to acid rain?

Sulfur dioxide/Nitrogen oxides

KS3 Chemistry Materials

### GCSE Revision Resources



Please find enclosed a range of revision resources.

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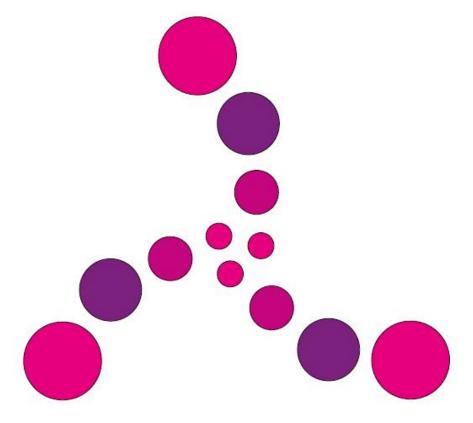
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# Key Stage 3 Physics Flash Cards



### Question

What type of energy is found in a battery?

KS3 Physics Energy



Question

What type of energy is found in a battery?

Chemical

KS3 Physics Energy



### Question

What type of energy is there where a current flows?

KS3 Physics Energy



#### Question

What type of energy is there where a current flows?

Electrical

KS3 Physics Energy



### Question

What is the main energy transfer that occurs when a wind turbine produces electricity?

KS3 Physics Energy



#### Question

What is the main energy transfer that occurs when a wind turbine produces electricity?

Kinetic to Electricity

KS3 Physics Energy



### Question

What is the main energy transfer that occurs when you use a battery operated torch?

KS3 Physics Energy



#### Question

What is the main energy transfer that occurs when you use a battery operated torch?

Chemical to Light (and heat)

KS3 Physics Energy



### Question

What is the main energy transfer that occurs in an car?

KS3 Physics Energy



#### Question

What is the main energy transfer that occurs in an car?

Chemical to Kinetic (sound and heat)

KS3 Physics Energy



### Question

What is a type of waste energy when using a lamp?

KS3 Physics Energy



#### Question

What is a type of waste energy when using a lamp?

Thermal

KS3 Physics Energy



### Question

What is another name used for movement energy?

KS3 Physics Energy



#### Question

What is another name used for movement energy?

Kinetic

KS3 Physics Energy



Question

What is energy measured in?

KS3 Physics Energy



Question

What is energy measured in?

Joules

KS3 Physics Energy



### Question

In a stretched spring, what type of energy is stored?

KS3 Physics Energy



Question

In a stretched spring, what type of energy is stored?

Elastic potential

KS3 Physics Energy

Card: 9

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### Question

What are the three methods of heat transfer?

KS3 Physics Energy



#### Question

What are the three methods of heat transfer?

Conduction, Convection and Radiation

KS3 Physics Energy



### Question

What type of energy do particles in a solid gain when heated?

KS3 Physics Energy



#### Question

What type of energy do particles in a solid gain when heated?

Kinetic

KS3 Physics Energy



### Question

How does conduction occur?

KS3 Physics Energy



#### Question

How does conduction occur?

Particle vibrations are passed on to their neighbour until all particles are vibrating at the same rate

KS3 Physics Energy



### Question

How is energy transferred in radiation?

KS3 Physics Energy



Question

How is energy transferred in radiation?

Via waves

KS3 Physics Energy

**Card**: 13

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### Question

A material that slows down the rate of heat transfer is called?

KS3 Physics Energy



#### Question

A material that slows down the rate of heat transfer is called?

An insulator

KS3 Physics Energy



### Question

A material that heats up quickly is called?

KS3 Physics Energy



Question

A material that heats up quickly is called?

A conductor

KS3 Physics Energy



### Question

What is meant by the 'Principle of Conservation of Energy'?

KS3 Physics Energy



#### Question

What is meant by the 'Principle of Conservation of Energy'?

Energy can not be created nor destroyed. It can only be transferred from one form to another.

KS3 Physics Energy



### Question

What are the three fossil fuels?

KS3 Physics Electricity Resources



Question

What are the three fossil fuels?

Coal, oil and natural gas

KS3 Physics Electricity Resources



### Question

What name is given to the energy resource that involves burning wood?

KS3 Physics Electricity Resources



#### Question

What name is given to the energy resource that involves burning wood?

**Biomass** 

KS3 Physics Electricity Resources



### Question

What is used to generate electricity using the wind?

KS3 Physics Electricity Resources



#### Question

What is used to generate electricity using the wind?

Wind turbine

KS3 Physics Electricity Resources



#### Question

What name is given to the energy resource that uses the heat from the ground?

KS3 Physics Electricity Resources



#### Question

What name is given to the energy resource that uses the heat from the ground?

Geothermal

KS3 Physics Electricity Resources



### Question

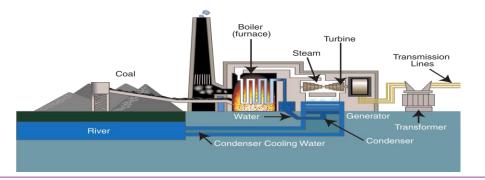
In a power station what are the main steps in producing electricity?

KS3 Physics Electricity Resources



#### Question

In a power station what are the main steps in producing electricity?



KS3 Physics Electricity Resources



### Question

An energy resource that will eventually run out is called?

KS3 Physics Electricity Resources



### Question

An energy resource that will eventually run out is called?

Non-renewable

KS3 Physics Electricity Resources



### Question

An energy resource that will not run out is called?

KS3 Physics Electricity Resources



### Question

An energy resource that will not run out is called?

Renewable

KS3 Physics Electricity Resources



### Question

Using the equation Energy Transferred = Power x Time, what is the energy transferred by a device that has a power rating of 100W and is on for 60s?

KS3 Physics Electricity Resources



#### Question

Using the equation Energy Transferred = Power x Time, what is the energy transferred by a device that has a power rating of 100W and is on for

6000J

KS3 Physics Electricity Resources



Question

What is the unit of Power?

KS3 Physics Electricity Resources



Question

What is the unit of Power?

Watt

KS3 Physics Electricity Resources



### Question

What name is given to the change of state when a solid changes to a liquid?

KS3 Physics Physical Changes



#### Question

What name is given to the change of state when a solid changes to a liquid?

Melting

KS3 Physics Physical Changes



### Question

What name is given to the change of state from a solid to a gas?

KS3 Physics Physical Changes



#### Question

What name is given to the change of state from a solid to a gas?

Sublimation

KS3 Physics Physical Changes



### Question

In which state are the particles more density packed?

KS3 Physics Physical Changes



#### Question

In which state are the particles more density packed?

Solid

KS3 Physics Physical Changes



#### Question

The movement of particles from a high concentration to a low concentration is known as?

KS3 Physics Physical Changes



#### Question

The movement of particles from a high concentration to a low concentration is known as?

Diffusion

KS3 Physics Physical Changes



### Question

What happens to the volume of a liquid when heated?

KS3 Physics Physical Changes



#### Question

What happens to the volume of a liquid when heated?

It increases

KS3 Physics Physical Changes



### Question

How can you calculate the speed of an object?

KS3 Physics Force and Motion



#### Question

How can you calculate the speed of an object?

Speed = <u>Distance</u>

Time

KS3 Physics Force and Motion



### Question

What is the standard unit of speed?

KS3 Physics Force and Motion



Question

What is the standard unit of speed?

m/s (metres per second)

KS3 Physics Force and Motion



### Question

On a distance-time graph, what does the slope represent?

KS3 Physics Force and Motion



#### Question

On a distance-time graph, what does the slope represent?

The objects speed

KS3 Physics Force and Motion



### Question

What is the standard unit of force?

KS3 Physics Force and Motion



Question

What is the standard unit of force?

N, Newton's

KS3 Physics Force and Motion



### Question

Forces can be measured using what device?

KS3 Physics Force and Motion



#### Question

Forces can be measured using what device?

Newton Metre, Nm

KS3 Physics Force and Motion



### Question

What are the five possible effects that a force can have upon an object?

KS3 Physics Force and Motion



#### Question

What are the five possible effects that a force can have upon an object?

- Cause it to speed up
  - Slow down
  - Change shape
  - Change direction
    - Turn

KS3 Physics Force and Motion



### Question

What can be said about the forces acting on an object moving at constant speed?

KS3 Physics Force and Motion



#### Question

What can be said about the forces acting on an object moving at constant speed?

They are balanced

KS3 Physics Force and Motion



### Question

What can be said about the forces acting on an object that is accelerating?

KS3 Physics Force and Motion



#### Question

What can be said about the forces acting on an object that is accelerating?

They are unbalanced with a greater force acting in the direction of acceleration

KS3 Physics Force and Motion



### Question

What force tries to prevent an object sliding on a surface?

KS3 Physics Force and Motion



#### Question

What force tries to prevent an object sliding on a surface?

Friction

KS3 Physics Force and Motion



### Question

As a parachutist falls to Earth, what force acts against the person?

KS3 Physics Force and Motion



#### Question

As a parachutist falls to Earth, what force acts against the person?

Air resistance

KS3 Physics Force and Motion



### Question

What is meant by terminal velocity?

KS3 Physics Force and Motion



#### Question

What is meant by terminal velocity?

The steady speed reached when forces become balanced.

KS3 Physics Force and Motion



### Question

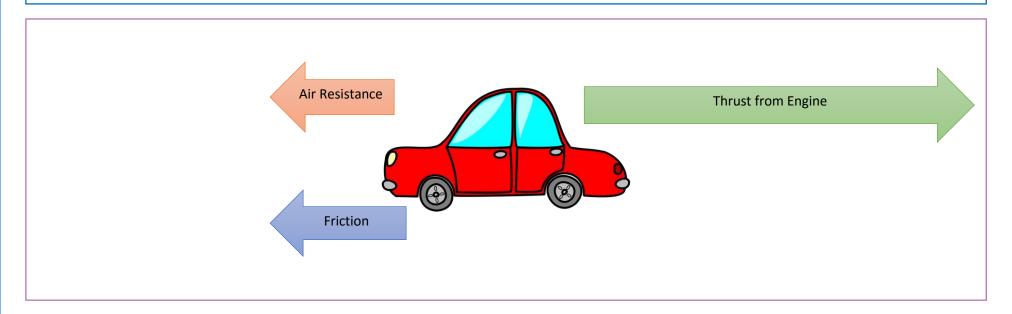
Draw a force diagram to show the forces acting on a car that is accelerating.

KS3 Physics Force and Motion



#### Question

Draw a force diagram to show the forces acting on a car that is accelerating.



KS3 Physics Force and Motion



#### Question

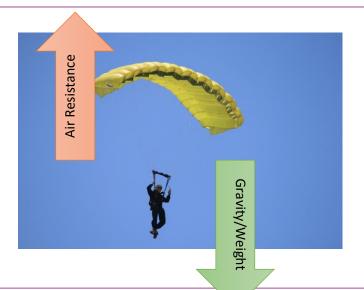
Draw a force diagram to show the forces acting on a parachutist with their parachute is fully open and they are travelling at a constant speed.

KS3 Physics Force and Motion



#### Question

Draw a force diagram to show the forces acting on a parachutist with their parachute is fully open and they are travelling at a constant speed.



KS3 Physics Force and Motion



### Question

What is meant by the term moment?

KS3 Physics Force and Motion



Question

What is meant by the term moment?

A turning effect of a force

KS3 Physics Force and Motion



Question

Moments are measured in?

KS3 Physics Force and Motion



Question

Moments are measured in?

Nm, Newton metres

KS3 Physics Force and Motion



### Question

An object is said to rotate around what point?

KS3 Physics Force and Motion



Question

An object is said to rotate around what point?

**Pivot** 

KS3 Physics Force and Motion



### Question

For a see-saw to be balanced, what must the moments be?

KS3 Physics Force and Motion



#### Question

For a see-saw to be balanced, what must the moments be?

Equal/Balanced - Anticlockwise moment must equal the clockwise moment

KS3 Physics Force and Motion



### Question

What does Hooke's law state about springs?

KS3 Physics Force and Motion



#### Question

What does Hooke's law state about springs?

The extension of a spring is directly proportional to the force applied, up to a certain force.

KS3 Physics Force and Motion



Question

What two factors affect pressure?

KS3 Physics Force and Motion



Question

What two factors affect pressure?

Force and Area

KS3 Physics Force and Motion



Question

What is the unit of Pressure?

KS3 Physics Force and Motion



Question

What is the unit of Pressure?

Pascal's

KS3 Physics Force and Motion



### Question

What happens to the pressure within a liquid as depth increases?

KS3 Physics Force and Motion



#### Question

What happens to the pressure within a liquid as depth increases?

There is greater pressure the deeper down in the liquid

KS3 Physics Force and Motion



### Question

Water waves are an example of which type of wave?

KS3 Physics Waves



#### Question

Water waves are an example of which type of wave?

Transverse

KS3 Physics Waves



### Question

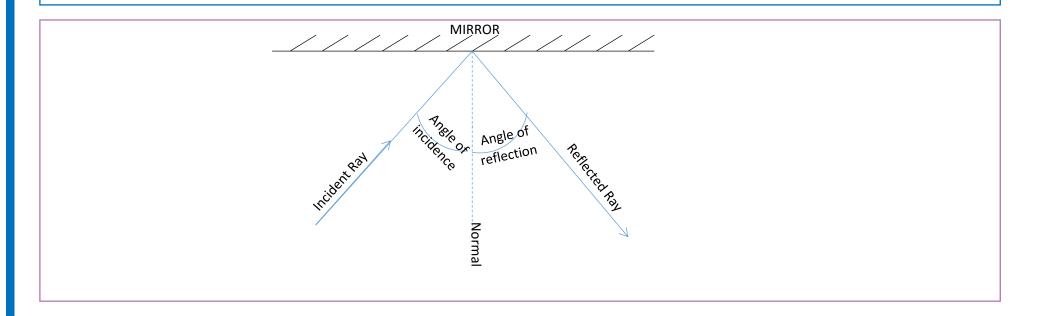
Draw a diagram to show reflection of light in a mirror.

KS3 Physics Waves



#### Question

Draw a diagram to show reflection of light in a mirror.



KS3 Physics Waves



### Question

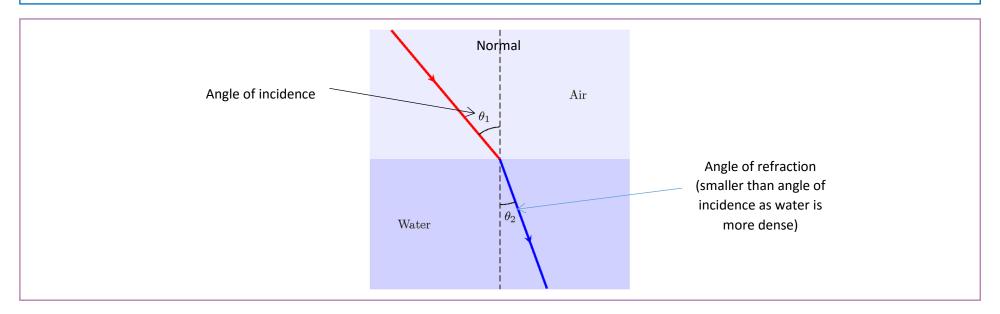
Draw a diagram to show refraction of light when light travels from air into glass.

KS3 Physics Waves



#### Question

Draw a diagram to show refraction of light when light travels from air into glass.



KS3 Physics Waves



### Question

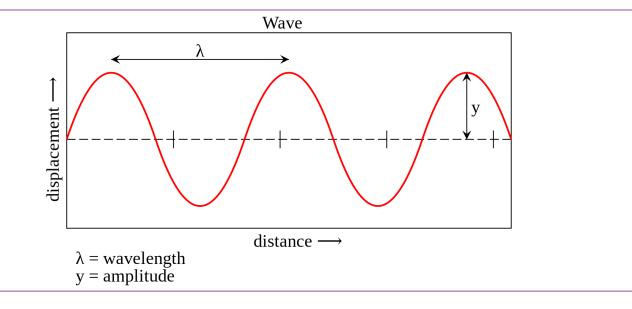
Draw and label the main parts of a transverse wave.

KS3 Physics Waves



#### Question

Draw and label the main parts of a transverse wave.



KS3 Physics Waves



### Question

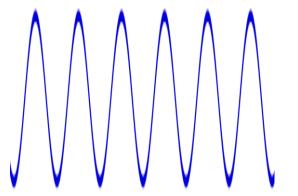
Draw a sound wave that is loud and has a high frequency

KS3 Physics Waves



#### Question

Draw a sound wave that is loud and has a high frequency



KS3 Physics Waves



### Question

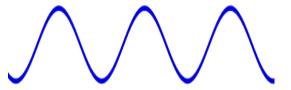
Draw a sound wave that is quiet and has a low frequency

KS3 Physics Waves



#### Question

Draw a sound wave that is quiet and has a low frequency



KS3 Physics Waves



### Question

What is the law of reflection?

KS3 Physics Waves



#### Question

What is the law of reflection?

Angle of incidence = Angle of reflection

KS3 Physics Waves



### Question

When does a light ray bend towards the normal?

KS3 Physics Waves



#### Question

When does a light ray bend towards the normal?

When light travels from a less dense material to a more dense material

KS3 Physics Waves



### Question

When does a light ray bend away from the normal?

KS3 Physics Waves



#### Question

When does a light ray bend away from the normal?

When light travels from a more dense material to a less dense material

KS3 Physics Waves



### Question

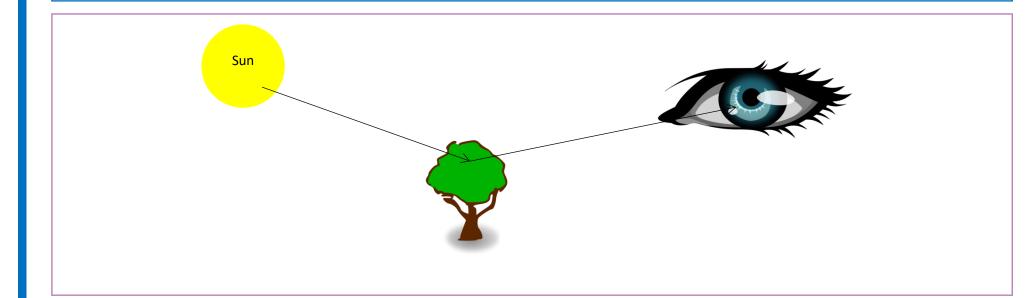
Draw a simple ray diagram to show how we see an object.

KS3 Physics Waves



#### Question

Draw a simple ray diagram to show how we see an object.



KS3 Physics Waves



### Question

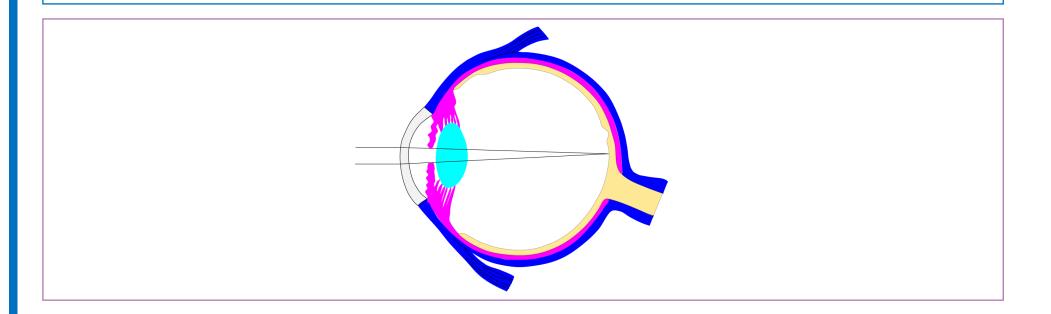
Draw a simple ray diagram to show how a lens can focus light, e.g. in the eye.

KS3 Physics Waves



#### Question

Draw a simple ray diagram to show how a lens can focus light.



KS3 Physics Waves



### Question

What is the role of the iris in the eye?

KS3 Physics Waves



#### Question

What is the role of the iris in the eye?

To control the amount of light entering the eye

KS3 Physics Waves



### Question

What is the role of the retina in the eye?

KS3 Physics Waves



#### Question

What is the role of the retina in the eye?

It is where the image is formed and it is photo sensitive

KS3 Physics Waves



### Question

What colours is white light made up of?

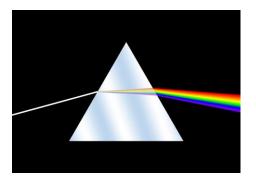
KS3 Physics Waves



#### Question

What colours is white light made up of?

Red, Orange, Yellow, Green, Blue, Indigo and Violet



KS3 Physics Waves



### Question

Which colour, in the visible spectrum, has the lowest frequency?

KS3 Physics Waves



#### Question

Which colour, in the visible spectrum, has the lowest frequency?

Red light

KS3 Physics Waves



### Question

Which colour, in the visible spectrum, has the longest wave length?

KS3 Physics Waves



#### Question

Which colour, in the visible spectrum, has the longest wave length?

Red light

KS3 Physics Waves



### Question

When white light is passed through a red filter, what colour is the light that comes out?

KS3 Physics Waves



#### Question

When white light is passed through a red filter, what colour is the light that comes out?

Red

KS3 Physics Waves



### Question

When green light is passed through a red filter, what colour is the light that comes out?

KS3 Physics Waves



#### Question

When green light is passed through a red filter, what colour is the light that comes out?

Black - No light comes out

KS3 Physics Waves



### Question

What causes a red object to appear red in white light?

KS3 Physics Waves



#### Question

What causes a red object to appear red in white light?

Red is reflected by the object whilst the other colours are absorbed

KS3 Physics Waves



### Question

What is meant by the term current?

KS3 Physics Electricity



Question

What is meant by the term current?

The flow of charge

KS3 Physics Electricity



### Question

What charged particles flow in an electrical circuit?

KS3 Physics Electricity



#### Question

What charged particles flow in an electrical circuit?

Electrons

KS3 Physics Electricity



Question

What is 'Potential Difference'?

KS3 Physics Electricity



#### Question

What is 'Potential Difference'?

In an electric circuit, this is the push given to move the current around the circuit

KS3 Physics Electricity



### Question

How can the resistance in an electrical circuit be increased?

KS3 Physics Electricity



#### Question

How can the resistance in an electrical circuit be increased?

Small diameter wire

Increase the temperature

Use a less conductive material

KS3 Physics Electricity



### Question

As the resistance increases in a circuit, what happens to the amount of current that flows around?

KS3 Physics Electricity



#### Question

As the resistance increases in a circuit, what happens to the amount of current that flows around?

Decreases

KS3 Physics Electricity



### Question

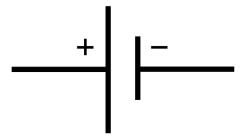
Draw the circuit symbol for a cell

KS3 Physics Electricity



#### Question

Draw the circuit symbol for a cell



KS3 Physics Electricity



### Question

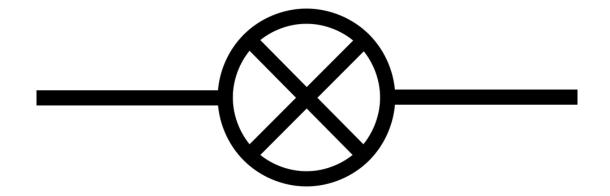
Draw the circuit symbol for a bulb

KS3 Physics Electricity



#### Question

Draw the circuit symbol for a bulb



KS3 Physics Electricity



### Question

Draw the circuit symbol for an open switch

KS3 Physics Electricity



#### Question

Draw the circuit symbol for an open switch



KS3 Physics Electricity



### Question

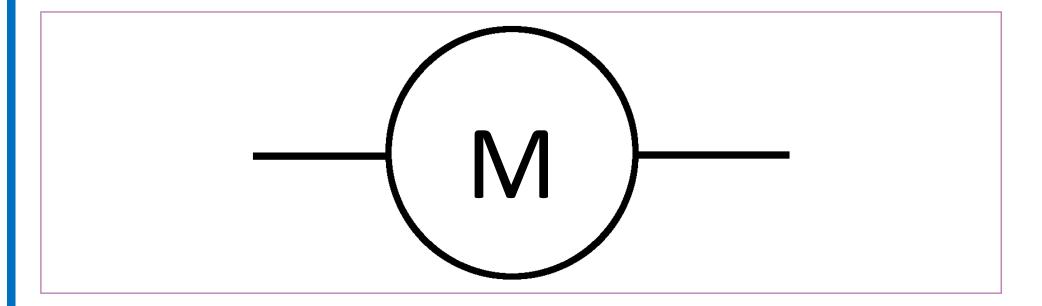
Draw the circuit symbol for a motor

KS3 Physics Electricity



Question

Draw the circuit symbol for a motor



KS3 Physics Electricity



### Question

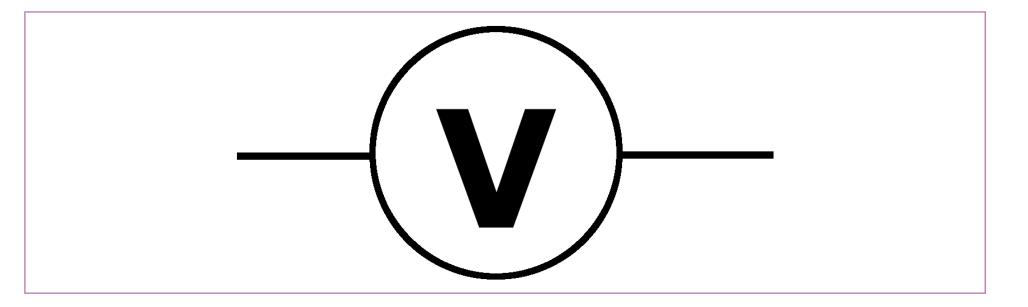
Draw the circuit symbol for a voltmeter

KS3 Physics Electricity



#### Question

Draw the circuit symbol for a voltmeter



KS3 Physics Electricity



### Question

What device is used to measure the current flowing through a circuit?

KS3 Physics Electricity



#### Question

What device is used to measure the current flowing through a circuit?

Ammeter

KS3 Physics Electricity



#### Question

What device is used to measure the potential difference across a component in an electrical circuit?

KS3 Physics Electricity



#### Question

What device is used to measure the potential difference across a component in an electrical circuit?

Voltmeter

KS3 Physics Electricity



### Question

How does the current vary in a series circuit?

KS3 Physics Electricity



#### Question

How does the current vary in a series circuit?

Same at all positions

KS3 Physics Electricity



### Question

How is the total potential difference in a series circuit calculated?

KS3 Physics Electricity



#### Question

How is the total potential difference in a series circuit calculated?

By adding up the potential differences across each component in the circuit

KS3 Physics Electricity



### Question

A series circuit is one type of electrical circuit, what is the name of the other type of circuit?

KS3 Physics Electricity



#### Question

A series circuit is one type of electrical circuit, what is the name of the other type of circuit?

Parallel

KS3 Physics Electricity



### Question

In a parallel circuit, how does the current vary?

KS3 Physics Electricity



#### Question

In a parallel circuit, how does the current vary?

It is split between each branch depending upon the resistance of the component

KS3 Physics Electricity



### Question

What charged particle can move and are negatively charged?

KS3 Physics Electricity



#### Question

What charged particle can move and are negatively charged?

Electrons

KS3 Physics Electricity



### Question

What causes static electricity?

KS3 Physics Electricity



Question

What causes static electricity?

The movement of electrons caused by two material rubbing together (friction)

KS3 Physics Electricity



#### Question

In static electricity, a material that gains electrons become charged. What charge does it become?

KS3 Physics Electricity



#### Question

In static electricity, a material that gains electrons become charged. What charge does it become?

Negative

KS3 Physics Electricity



#### Question

In static electricity, a material that loses electrons become charged. What charge does it become?

KS3 Physics Electricity



#### Question

In static electricity, a material that loses electrons become charged. What charge does it become?

Positive

KS3 Physics Electricity



### Question

In static electricity, which charges attract each other?

KS3 Physics Electricity



#### Question

In static electricity, which charges attract each other?

Positive and negative

KS3 Physics Electricity



### Question

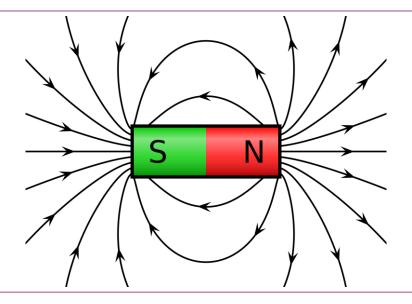
Draw the magnetic field around a bar magnet

KS3 Physics Magnets



#### Question

Draw the magnetic field around a bar magnet



KS3 Physics Magnets



### Question

What are the two ends of a bar magnet called?

KS3 Physics Magnets



#### Question

What are the two ends of a bar magnet called?

North and South Poles

KS3 Physics Magnets



### Question

What can be used to show the magnetic field around a bar magnet?

KS3 Physics Magnets



#### Question

What can be used to show the magnetic field around a bar magnet?

Iron filings and/or plotting compasses

KS3 Physics Magnets



### Question

Which poles of a magnet attract each other?

KS3 Physics Magnets



#### Question

Which poles of a magnet attract each other?

North and South - opposites

KS3 Physics Magnets



### Question

When two magnetic poles come together and they push each other apart, this is called?

KS3 Physics Magnets



#### Question

When two magnetic poles come together and they push each other apart, this is called?

Repel

KS3 Physics Magnets



### Question

What is found around a wire carrying current?

KS3 Physics Magnets



#### Question

What is found around a wire carrying current?

A magnetic field

KS3 Physics Magnets



### Question

How can you increase the strength of an electromagnet?

KS3 Physics Magnets



#### Question

How can you increase the strength of an electromagnet?

- Increase the number of coils
- Increase the current and use a soft iron core

KS3 Physics Magnets



### Question

What is the benefit of using an electromagnet over a bar magnet?

KS3 Physics Magnets



#### Question

What is the benefit of using an electromagnet over a bar magnet?

An electromagnet can be switched on and off

KS3 Physics Magnets



### Question

What devices use an electromagnet?

KS3 Physics Magnets



#### Question

What devices use an electromagnet?

Door bells, motors, speakers

KS3 Physics Magnets



### Question

What affects the force of gravity?

KS3 Physics Space



#### Question

What affects the force of gravity?

The mass of the object.

The greater the mass the greater the gravity

KS3 Physics Space



Question

What is meant by a planet?

KS3 Physics Space



Question

What is meant by a planet?

Something that orbits a star

KS3 Physics Space



### Question

What is found at the centre of our solar system?

KS3 Physics Space



#### Question

What is found at the centre of our solar system?

The Sun

KS3 Physics Space



### Question

What name is given to objects like our Sun that give out light?

KS3 Physics Space



#### Question

What name is given to objects like our Sun that give out light?

Luminous

KS3 Physics Space



### Question

List the planets in order as you move away from the Sun.

KS3 Physics Space



#### Question

List the planets in order as you move away from the Sun.

Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune

KS3 Physics Space



### Question

What is meant by the term galaxy?

KS3 Physics Space



Question

What is meant by the term galaxy?

A large collection of stars

KS3 Physics Space



### Question

What causes night and day on Earth?

KS3 Physics Space



#### Question

What causes night and day on Earth?

The Earth spinning on its axis

KS3 Physics Space



### Question

What causes seasons on Earth?

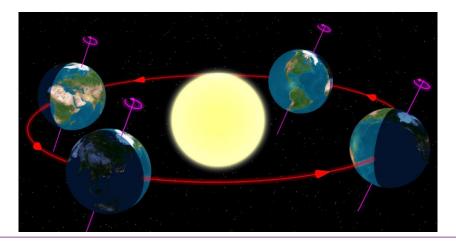
KS3 Physics Space



### Question

What causes seasons on Earth?

#### The tilt of the Earth



KS3 Physics Space



Question

How long is a day on Earth?

KS3 Physics Space



Question

How long is a day on Earth?

24 hours

KS3 Physics Space



Question

How long is a year on Earth?

KS3 Physics Space



#### Question

How long is a year on Earth?

365 and a quarter days

KS3 Physics Space



Question

What causes a year on Earth?

KS3 Physics Space



### Question

What causes a year on Earth?

One complete orbit around the Sun

KS3 Physics Space

### GCSE Revision Resources



Please find enclosed a range of revision resources.

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