



Y8 Half-term 1

Science homework booklet

Core questions

How to use:

- 1 - **Copy** the answers once into your **knowledge organiser** to help you to learn them.
- 2 - Fold the page in **half** so that you can only see the questions, and write the answers out **again from memory**.
- 3 - Show your knowledge organiser to your teacher on the specified due date. You should show them **TWO** sets of answers to each question.

That's it!

Teacher's name: _____

Topic: Forces (Y7 topic continued into Y8)

Date due: _____

No.	Question	Answer
1	What is a force?	A pull, push or twist
2	A force can change the shape, direction, and what else of an object?	Speed
3	How do we represent different forces on a diagram?	Arrows from where the force begins
4	The bigger the arrow, the _____ the force?	Larger
5	What is the unit for force?	Newton
6	What is the unit symbol for force?	N (capital)
7	What apparatus is used to measure forces?	Newton meter
8	A vector has magnitude and what other component?	Direction
9	What is a contact force?	A force that acts on objects that are touching

Topic: Forces (Y7 topic continued into Y8)

Date due: _____

9	What is a non-contact force?	A force that acts on objects that are not touching
10	State one example of a contact force.	Any one from: Friction, air resistance, tension, normal force
11	State one example of a non-contact force.	Any one from: Magnetic force, gravitational force, weight electrostatic force
12	What do we call the support force provided by a solid surface?	Reaction force.
13	What is the term for increasing the length of an object?	Extension
14	Hooke's Law can also be called the limit of _____?	Proportionality
15	What is it called when a material gets to beyond a point which it will not return to its original length after being extended or compressed?	Limit of proportionality
16	Describe the shape of the graph for Hooke's law (extension against force)	Straight line

Topic: Forces (Y7 topic continued into Y8)

Date due: _____

17	Does friction act in the opposite or same way as the direction of motion?	Opposite
18	In car brakes would friction be useful or not?	Useful
19	How can friction be reduced?	Lubrication
20	What is a fluid?	A liquid or a gas
21	What do we call the resistance force caused by the motion of a body through a fluid?	Drag
22	If an object has a big surface area would it have a large or small drag force?	Large
23	What effect would making an object more streamlined have on the drag force?	Reduce it
24	What do we call the reaction force of a liquid on an object's weight	Up-thrust
25	What happens to an object if it is more dense than water	It sinks
26	Is air more or less dense than water?	Less

Topic: Separating mixtures

Date due: _____

No.	Question	Answer
1	What is an element?	A substance made up of only one type of atom
2	What is a compound?	Two or more different types of atom chemically bonded together
3	What is a mixture?	Different substances together but not chemically bonded
4	What is a molecule?	Two or more atoms chemically bonded together
5	Is O ₂ an element, compound or mixture?	Element
6	Is CO ₂ an element, compound or mixture?	Compound
7	Is N ₂ an element, compound or mixture?	Element
8	Is NH ₄ an element, compound or mixture?	Compound

Topic: Separating mixtures

Date due: _____

No.	Question	Answer
9	What is the name for the compound formed when any element reacts with oxygen?	Oxide
10	What is the name for the compound formed when any element reacts with chlorine?	Chloride
11	What is the name for the compound formed when any element reacts with bromine?	Bromide
12	What is the name for the compound formed when any element reacts with sulfur?	Sulfide
13	Is sand and water an example of an element, compound, or mixture?	Mixture
14	Is salt and water an example of an element, compound, or mixture?	Mixture
15	What is the name of the process for separating sand and water?	Filtration
16	What process would allow you to collect the salt from salt water?	Evaporation

Topic: Separating mixtures

Date due: _____

No.	Question	Answer
17	What is left behind from a solution when it evaporates?	Crystals
18	What is the name of the piece of equipment in which filter paper sits for filtration?	Funnel
19	What is the name of the process for separating a mixture via evaporation and condensation?	Distillation
20	What is the name for the process of a liquid turning into a gas?	Evaporation
21	What is the name for the process of a gas turning into a liquid?	Condensation
22	Define the term "boiling point".	The temperature at which a liquid turns to vapour/gas
23	What is the name for a technique used to separate mixture by passing it in solution or suspension through a medium in which the components move at different rates?	Chromatography
24	What is the name for a visible record showing the result of separating the components of a mixture by chromatography?	Chromatogram