Section 1.1

|!|ASEFM0010100001|!|

(1 mark each)

Scientists have made scientific (a)_____, which led to important (b)_____. All these have greatly improved our quality of life. However, they can also cause harm if not used properly.

##(a) discoveries, (b) inventions##

@@x)bkn,2@@

[[]]

|!|ASEFM0010100002|!|

(1 mark each)

There are two types of natural resources. (a)_____ resources can be replenished continuously in Nature and will not be used up. These resources include plants, (b)_____, water and (c)_____. (d)_____ resources cannot be replenished in a short time once they are used up. Metal ores and (e)_____ are examples of this type of resource.

##(a) Renewable, (b) animals, (c) air, (d) Non-renewable, (e) fossil fuels##

@@x)bkn,5@@

[[]]

Section 1.2

|!|ASEFM0010200003|!|

(1 mark each)

Scientists work like detectives. They start with making careful (a)_____. They carry out (b)_____ to collect (c)_____. Finally, they draw (d)_____ from their experimental results.

##(a) observations, (b) experiments, (c) evidence, (d) conclusions##

@@x)bkn,4@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFE0010200004|!|

The following are the steps involved in a scientific investigation. Fill in the blanks with the most suitable words chosen from the box below. (1 mark each)

analysis	conclusion	experiments	record
measurement	observations	discussion	hypothesis

(a) In the first step of a scientific investigation, scientists usually make _____ and then ask a number of questions.

(b) They then form a (i)_____. In order to find out if it is correct, they carry out (ii)_____.

(c) After that, they will do (i)_____ to see if the results agree with the hypothesis. Finally they will draw a (ii)_____.

##

(a) observations

(b) (i) hypothesis, (ii) experiments

(c) (i) analysis, (ii) conclusion

##

@@x)bkn,5@@

[[]]

|!|ASEFM0010200005|!|

(1 mark each)

Science is based on (a)_____. When scientists work, they need to find enough observations and (b)_____ in the experiments to support their (c)_____. Otherwise, it will not become acceptable scientific knowledge.

##(a) evidence, (b) data, (c) hypothesis##

@@x)bkn,3@@

[[]]

|!|ASEFM0010200006|!|

In an investigation, the factors you will keep the same are called _____ variables.

##controlled##

@@x)bkn,1@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010200007|!|

(1 mark each)

When designing an experiment, we have to make sure that it is a (a)_____. All variables should be kept the same, except the one we are investigating. The only variable that is changed is called the (b)_____ variable. The one to be measured is called the (c)_____ variable, and the ones that are kept the same are called the (d)_____ variables.

##(a) fair test, (b) independent, (c) dependent, (d) controlled##

@@x)bkn,4@@

[[]]

|!|ASEFM0010200008|!|

(1 mark each)

There are different types of scientific investigations. (a)'_____' investigations involve observing and recording natural phenomena, and trying to find a pattern. (b)'_____' investigations mainly aim at showing the structures of objects and explaining how they work. Comparing the similarities and differences between objects and sorting the objects into groups belong to the (c)'_____' investigations.

##(a) Pattern seeking, (b) Model building, (c) classifying##

@@x)bkn,3@@

[[]]

Section 1.3

|!|ASEFM0010300009|!|

(1 mark each)

We usually do experiments in the (a)_____, which has a lot of (b)_____ for protecting our safety. Examples include (c)_____ that can protect our eyes during heating, and (d)_____ that can be used to wash the eyes in case chemicals get into them.

##(a) laboratory, (b) safety equipment, (c) safety goggles, (d) eye wash bottle##

@@x)bkn,4@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010300010|!|

(1 mark each)

The (a)_____ found on the containers of chemicals warn us the potential dangers of the chemicals. (b)_____ chemicals should be kept away from heat and flame. (c)_____ chemicals should be stored in a well ventilated room while shock should be avoided when handling (d)_____ chemicals. When we handle harmful, (e)_____ or (f)_____ chemicals, we should avoid breathing in the vapour and we should wash our hands thoroughly after handling these chemicals.

##(a) hazard warning symbols, (b) Flammable, (c) Corrosive, (d) explosive, (e) irritant, (f) toxic##

@@x)bkn,6@@

[[]]

|!|ASEFM0010300011|!|

When you get chemical burns, you should put the affected area in slow _____ for at least 10 minutes.

##running water##

@@x)bkn,1@@

[[]]

|!|ASEFM0010300012|!|

If some chemicals accidentally get into your eyes, you should use the distilled water from an _____ to wash the eyes.

##eye wash bottle##

@@x)bkn,1@@

[[]]

|!|ASEFM0010300013|!|

(1 mark each)

Three conditions are needed for a fire to start. They are (a)_____, (b)_____ and (c)_____. These three conditions together make up the (d)_____.

##(a) fuel, (b) oxygen, (c) high temperature, (d) fire triangle##

@@x)bkn,4@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010300014|!|

(1 mark each)

The P.A.S.S. technique of using a fire extinguisher is listed below:

(a) _____ the safety pin.

(b) _____ at the lowest part of the fire.

(c) _____ the handle.

(d) _____ from side to side until the fire is completely put out.

##(a) Pull, (b) Aim, (c) Squeeze, (d) Sweep##

@@x)bkn,4@@

[[]]

Section 1.4

|!|ASEFM0010400015|!|

To transfer a small amount of solution in the laboratory, we can use a _____.

##dropper##

@@x)sps,1@@

[[]]

|!|ASEFM0010400016|!|

To transfer a small amount of powder in the laboratory, we can use a _____.

##spatula##

@@x)sps,1@@

[[]]

|!|ASEFM0010400017|!|

(1 mark each)

When we heat a beaker of liquid in the laboratory, we have to use a (a)_____ and a (b)_____ to support the beaker.

##(a) tripod, (b) wire gauze##

@@x)sps,2@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010400018|!|
We can use a _____ to heat or burn things in the laboratory.
##Bunsen burner##
@@x)sps,1@@
[[]]

|!|ASEFM0010400019|!|
We use a _____ to connect the Bunsen burner with the gas tap.
##rubber tubing##
@@x)sps,1@@
[[]]

|!|ASEFM0010400020|!|
We can use a _____ to stir liquids.
##glass rod##
@@x)sps,1@@
[[]]

|!|ASEFM0010400021|!|
(1 mark each)
When we need to use a large volume of solution, we can pour the solution from a reagent bottle to a (a)_____. If we only need a small amount, we can use a (b)_____ to transfer the solution from a beaker to a (c)_____.
##(a) beaker, (b) dropper, (c) test tube##
@@x)sps,3@@
[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFE0010400022|!|

Mandy wants to dissolve a solid substance in a liquid. Fill in the blanks with the most suitable words chosen from the box below. (1 mark each)

safety goggles	glass rod	hazard warning symbol
instruction	safety precautions	dissolves
spoon	spatula	

Before the experiment, Mandy should check the (a)_____ on the containers of the chemicals and take necessary (b)_____. Then she can use a (c)_____ to transfer a small amount of the solid substance to a beaker containing the liquid. After that she can use a (d)_____ to stir the solution until the solid substance (e)_____.

##(a) hazard warning symbol, (b) safety precautions, (c) spatula, (d) glass rod, (e) dissolves##

@@x)bkn,3&sps,2@@

[[]]

|!|ASEFE0010400023|!|

Tom wants to evaporate a liquid and test the solid left behind. Fill in the blanks with the most suitable words chosen from the box below. (1 mark each)

evaporation	spatula	Bunsen flame	cover plate
evaporating	dropper	spoon	stopper

First, Tom uses a (a)_____ to transfer a few drops of the liquid to an (b)_____dish. Then, he uses a (c)_____ to heat the dish until all water is evaporated. By using a (d)_____, he transfers the solid left behind on the dish to a test tube and uses a (e)_____ to cover the mouth of the test tube and leaves the solid for further investigation later.

##(a) dropper, (b) evaporating, (c) Bunsen flame, (d) spatula, (e) stopper##

@@x)sps,5@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

Section 1.5

|!|ASEFM0010500024|!|
We use suitable _____ to make accurate measurement.
##measuring instruments##
@@x)bkn,1@@
[[]]

|!|ASEFM0010500025|!|
(1 mark each)
(a)_____ can be measured in millilitres. We use a (b)_____ to make this measurement.
##(a) Volume, (b) measuring cylinder##
@@x)bkn,1&sps,1@@
[[]]

|!|ASEFM0010500026|!|
The water surface in a test tube or measuring cylinder is curved. This is called a _____.
##meniscus##
@@x)bkn,1@@
[[]]

|!|ASEFM0010500027|!|
The _____ of an object is the amount of space it occupies.
##volume##
@@x)bkn,1@@
[[]]

|!|ASEFM0010500028|!|
We use a _____ to weigh objects in the laboratory.
##balance##
@@x)sps,1@@
[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010500029|!|

An electronic balance has a '_____' function. This function is useful when we need to measure the mass of a substance in a container.

##re-zero / tare##

@@x)sps,1@@

[[]]

|!|ASEFM0010500030|!|

(1 mark each)

Temperature is usually measured in (a)_____, which has a symbol (b)_____.

##(a) degree Celsius, (b) °C##

@@x)bkn,2@@

[[]]

|!|ASEFM0010500031|!|

We can use a _____ to measure temperature.

##thermometer##

@@x)sps,1@@

[[]]

|!|ASEFM0010500032|!|

(1 mark each)

(a)_____ and (b)_____ are the liquids commonly used in thermometers.

##(a) Mercury, (b) coloured alcohol##

@@x)bkn,2@@

[[]]

|!|ASEFM0010500033|!|

In the laboratory, we usually use a _____ to measure short time intervals.

##stopwatch##

@@x)sps,1@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010500034|!|

A watch is used to measure _____.

##time##

@@x)bkn,1@@

[[]]

|!|ASEFM0010500035|!|

(1 mark each)

We can use a (a)_____ or a (b)_____ to measure longer time intervals.

##(a) watch, (b) clock##

@@x)bkn,2@@

[[]]

|!|ASEFE0010500036|!|

Fill in the blanks with the most suitable words chosen from the box below.

(1 mark each)

balance	centimetres	kilometres	kilograms
grams	clock	stopwatch	metre rule

(a) We usually use a (i)_____ to measure length. Short lengths are measured in (ii)_____ or millimetres.

(b) In measuring mass, we can use a (i)_____. Our mass is usually measured in (ii)_____.

(c) We usually use a _____ to measure time in the laboratory.

##

(a) (i) metre rule, (ii) centimetres

(b) (i) balance, (ii) kilograms

(c) stopwatch

##

@@x)bkn,2&sps,3@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010500037|!|

(1 mark each)

To reduce the (a)_____ when we make measurements, we often repeat the measurement several times and then calculate an (b)_____ value.

##(a) errors, (b) average##

@@x)sps,1@@

[[]]

Section 1.6

|!|ASEFM0010600038|!|

(1 mark each)

We usually use a (a)_____ to transfer a small amount of solution in the laboratory. When we use this apparatus, we should not hold it (b)_____. Otherwise, the solution will go into the (c)_____ and it may be contaminated by any substance left there.

##(a) dropper, (b) upside-down, (c) rubber bulb##

@@x)sps,3@@

[[]]

|!|ASEFM0010600039|!|

The yellow flame of a Bunsen burner is called a _____ flame.

##luminous##

@@x)bkn,1@@

[[]]

|!|ASEFM0010600040|!|

The blue flame of a Bunsen burner is called a _____ flame.

##non-luminous##

@@x)bkn,1@@

[[]]

|!|ASEFM0010600041|!|

Non-luminous flame is also called the _____.

##blue flame ##

@@x)bkn,1@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS

|!|ASEFM0010600042|!|

(1 mark each)

Sometimes a Bunsen burner may (a)_____ if the air hole is fully open. You should turn off the (b)_____ immediately.

##(a) strike back, (b) gas tap##

@@x)bkn,2@@

[[]]

|!|ASEFE0010600043|!|

The following shows the steps in lighting a Bunsen burner. Fill in the blanks with the most suitable words chosen from the box below. (1 mark each)

gas tap	rubber tubing	heat-proof mat	collar
chimney	luminous	non-luminous	wooden plate

(a) Put a Bunsen burner on a _____.

(b) Connect the _____ to the gas tap and check whether the connection is tight.

(c) Turn the _____ to close the air hole.

(d) Place the gas lighter just above the top of the _____ . Then press the button of the gas lighter.

(e) Turn on the (i)_____. Open the air hole to get a (ii)_____ flame.

##

(a) heat-proof mat

(b) rubber tubing

(c) collar

(d) chimney

(e) (i) gas tap, (ii) non-luminous

##

@@x)sps,6@@

[[]]

© Aristo Educational Press Ltd. 2018

LIVEWORKSHEETS