

Working Scientifically Core Questions

1	What colour flame should a Bunsen burner always be lit on?	Yellow (accept safety flame)
2	How do we adjust a Bunsen burner to a roaring/ blue flame?	Open the airhole
3	When should the blue flame on a Bunsen burner be used?	For heating a substance
4	What does the skull symbol on a chemical represent?	Toxic
5	What equipment is used to support glassware on a tripod?	Gauze
6	What is a "risk"?	How likely something is to be harmful
7	What is an observation?	Something you can visibly see
8	What is a prediction?	What you think will happen in an experiment
9	What safety measures should be taken in a lab? (Name 2)	Any 2 of: Hair tied back, Safety specs, Stools and bags under, standing up
10	What equipment should be used to draw tables and graphs?	Pencil and ruler
11	What equipment is used to measure accurate volumes?	measuring cylinder
12	What is the theory of conservation of mass?	That atoms cannot be created or destroyed in a chemical reaction, just rearranged
13	What are the three types of data?	Continuous, categorical and discrete
14	What is continuous data?	Numerical (number) data where the number can be any size
15	Give three examples of observations	Colour, giving off light (luminescence), giving off gas, movement, change in state

16	What is discrete data?	Data with numbers, but only certain numbers are allowed
17	What is an independent variable?	A variable that is changed by the scientist
18	What is the dependent variable?	The variable that is observed, measured or counted by the scientist
19	What is a controlled variable?	A variable that is kept the same throughout the experiment.
20	How can relationships be described?	As x increases/decreases, y increases/decreases
21	What is a conclusion?	A statement that says whether your prediction was correct
22	What is categorical data?	Data which has no numbers but can be put into categories (groups)
23	How can you increase the reliability of your experiment?	By repeating it and taking a mean
24	How do we deal with anomalies?	Circle them and ignore them from calculations and lines of best fit
25	Which axis does each variable go on?	Independent on the x, dependent on the y
26	What is reliability?	How likely your results are to be repeated

How Science Works Core Questions

1	What colour flame should a Bunsen burner always be lit on?	Yellow (accept safety flame)
2	How do we adjust a Bunsen burner to a roaring/ blue flame?	Open the airhole
3	When should the blue flame on a Bunsen burner be used?	For heating a substance
4	What does the skull symbol on a chemical represent?	Toxic
5	What equipment is used to support glassware on a tripod?	Gauze
6	What is a "risk"?	How likely something is to be harmful
7	What is an observation?	Information gathered by your senses
8	What is a prediction?	What you think will happen in an experiment
9	What safety measures should be taken in a lab? (Name 2)	Any 2 of: Hair tied back, Tie off, Safety specs, Stools and bags under, standing up
10	What equipment should be used to draw tables and graphs?	Pencil and ruler
11	What equipment is used to measure accurate volumes?	measuring cylinder
12	What is the theory of conservation of mass?	That atoms cannot be created or destroyed in a chemical reaction, just rearranged
13	What are the three types of data?	Continuous, categorical and discrete
14	What is continuous data?	Numerical (number) data where the number can be any size
15	Give three examples of observations	Colour, giving off light (luminescence), giving off gas, movement, change in state

16	What is discrete data?	Data with numbers, but only certain numbers are allowed
17	What is an independent variable?	A variable that could be changed by the scientist
18	What is the dependent variable?	The variable that is observed, measured or counted by the scientist
19	What is a controlled variable?	A variable that is kept the same throughout the experiment.
20	How can relationships be described?	As x increases/decreases, y increases/decreases
21	What is a conclusion?	A statement that says whether your prediction was correct
22	What is categorical data?	Data which has no numbers but can be put into categories (groups)
23	How can you increase the reliability of your experiment?	By repeating it and taking a mean
24	How do we deal with anomalies?	Circle them and ignore them from calculations and lines of best fit
25	How can relationships be described?	As x increases/decreases, y increases/decreases
26	Which axis does each variable go on?	Independent on the x, dependent on the y
27	What is reliability?	How likely your results are to be repeated
28	Which axis does each variable go on?	Independent on the x, dependent on the y