



## A year 5 scientist

### Working scientifically (Y5 and Y6)

- I can plan different types of scientific enquiry.
- I can control variables in an enquiry.
- I can measure accurate and precisely using a range of equipment.
- I can record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- I can use the outcome of test results to make predictions and set up a further comparative fair test.
- I can report findings from enquiries in a range of ways.
- I can explain a conclusion from an enquiry.
- I can explain causal relationships in an enquiry.
- I can relate the outcome from an enquiry to scientific knowledge in order to state whether evidence supports or refutes an argument or theory.
- Read, spell and pronounce scientific vocabulary accurately.
- *The 'Working scientifically' statements above are taught across year 5 and 6. Some of these statements will be taught in year 6.*

### Biology

#### Living things and their habitats

- I can describe the life cycle of different living things, e.g. mammal, amphibian, insect bird.
- I can describe the differences between different life cycles.
- I can describe the process of reproduction in plants.
- I can describe the process of reproduction in animals.

#### Animals, including humans

- I can create a timeline to indicate stages of growth in humans.

### Chemistry

#### Properties and changes of materials

- I can compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets).
- I can describe how a material dissolves to form a solution; explaining the process of dissolving.
- I can describe and show how to recover a substance from a solution.
- I can describe how some materials can be separated.
- I can demonstrate how materials can be separated (e.g. through filtering, sieving and evaporating).
- I know and can demonstrate that some changes are reversible and some are not.
- I can explain how some changes result in the formation of a new material and that this is usually irreversible.
- I can discuss reversible and irreversible changes.
- I can give evidenced reasons why materials should be used for specific purposes.

### Physics

#### Earth and space

- I can describe and explain the movement of the Earth and other planets relative to the Sun.
- I can describe and explain the movement of the Moon relative to the Earth.
- I can explain and demonstrate how night and day are created.
- I can describe the Sun, Earth and Moon (using the term spherical).

#### Forces

- I can explain what gravity is and its impact on our lives.
- I can identify and explain the effect of air resistance.
- I can identify and explain the effect of water resistance.
- I can identify and explain the effect of friction.
- I can explain how levers, pulleys and gears allow a smaller force to have a greater effect.

### **A year 5 historian**

- I can draw a timeline with different historical periods showing key historical events or lives of significant people.
- I can compare two or more historical periods; explaining things which changed and things which stayed the same.
- I can explain how Parliament affects decision making in England.
- I can test out a hypothesis in order to answer questions.
- I can describe how crime and punishment has changed over a period of time.

### **A year 5 geographer**

- I can plan a journey to a place in another part of the world, taking account of distance and time.
- I can explain why many cities are situated on or close to rivers.
- I can explain why people are attracted to live by rivers.
- I can explain the course of a river.
- I can name and locate many of the world's most famous rivers in an atlas.
- I can name and locate many of the world's most famous mountainous regions in an atlas.
- I can explain how a location fits into its wider geographical location with reference to human and economical features.

### **A year 5 artist**

- I can identify and draw objects and use marks and lines to produce texture.
- I can successfully use shading to create mood and feeling.
- I can organise line, tone, shape and colour to represent figures and forms in movement.
- I can use shading to create mood and feeling.
- I can express emotion in my art.
- I can create an accurate print design following criteria.
- I can research the work of an artist and use their work to replicate a style.

### A year 5 designer

- I can come up with a range of ideas after collecting information from different sources.
- I can produce a detailed, step-by-step plan.
- I can suggest alternative plans; outlining the positive features and draw backs.
- I can explain how a product will appeal to a specific audience.
- I can evaluate appearance and function against original criteria.
- I can use a range of tools and equipment competently.
- I can make a prototype before make a final version.
- I show that I can be both hygienic and safe in the kitchen.

### A year 5 musician

- I can breathe in the correct place when singing.
- I can maintain my part whilst others are performing their part.
- I can improvise within a group using melodic and rhythmic phrases.
- I can change sounds or organise them differently to change the effect.
- I can compose music which meets specific criteria.
- I can use notation to record groups of pitches (chords).
- I can use my music diary to record aspects of the composition process.
- I can choose the most appropriate tempo for a piece of music.
- I can describe, compare and evaluate music using musical vocabulary.
- I can explain why I think music is successful or unsuccessful.
- I can suggest improvement to my own work and that of others.
- I can contrast the work of a famous composer and explain my preferences.

### A year 5 sports person

#### Games

- I can gain possession by working a team.
- I can pass in different ways.
- I can use forehand and backhand with a racket.
- I can field.
- I can choose a tactic for defending and attacking.
- I can use a number of techniques to pass, dribble and shoot.

#### Gymnastics

- I can make complex extended sequences.
- I can combine action, balance and shape.
- I can perform consistently to different audiences.

#### Dance

- I can compose my own dances in a creative way.
- I can perform to an accompaniment.
- My dance shows clarity, fluency, accuracy and consistency.

#### Athletics

- I am controlled when taking off and landing.
- I can throw with accuracy.
- I can combine running, jumping, throwing and catching in combination or isolation.

#### Outdoor and adventurous

- I can take part in outdoor and adventurous activity challenges both individually and within a team.

### A year 5 computer user

#### Algorithms and programming

- I can combine sequences of instructions and procedures to turn devices on and off.
- I can use technology to control an external device.
- I can design algorithms that use repetition & 2-way selection.

#### Information technology

- I can analyse information.
- I can evaluate information.
- I understand how search results are selected and ranked.

#### Digital literacy

- I understand that you have to make choices when using technology and that not everything is true and/or safe.

### A year 5/6 international speaker

#### Spoken language

- I can hold a simple conversation with at least 4 exchanges.
- I can use my knowledge of grammar to speak correctly.

#### Reading

- I can understand a short story or factual text and note the main points.
- I can use the context to work out unfamiliar words.

#### Writing

- I can substitute words and phrases.

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