



Year 6 - Science skills progression

Term	Subject Knowledge Objective (where applicable)	Use all or some of the following activities to cover this objective	Working scientifically skills developed in the activities
Classifying living things.	Give reasons for classifying plants and animals based on specific characteristics.	1. Quick classifications	Classifying and sorting.
Classifying living things.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.	2. Classifying the local environment	Give reasons for classifying based on specific characteristics.
Classifying living things.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.	2. Classifying the local environment	Give reasons for classifying based on specific characteristics.
Classifying living things.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.	1. Carl linneaus	Identify scientific evidence that has been used to support or refute ideas or arguments.
Classifying living things.	. Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.	2. Bacteria	Give reasons for classifying based on specific characteristics.
Classifying living things.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.	3. Fabulous Fungi	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
Healthy bodies.	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.	1. What do you want to know? 2. What do you know?	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary . Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentation

Healthy bodies.	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.	1. Changes in heart and breathing rate	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. L.O. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. L.O. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. L.O. Use test results to make predictions to set up further comparative and fair tests. L.O. Identify scientific evidence that has been used to support or refute ideas or arguments.
Healthy bodies.		2. Lung capacity	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate L.O. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. L.O. Identify scientific evidence that has been used to support or refute ideas or arguments.
Healthy bodies.	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.	1. Diet	Research and discuss.
Healthy bodies.	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Ask children to vote.	2. What is a drug? 3. Cigarettes and alcohol	Research and discuss.
Healthy bodies.	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.	4. Meet the scientists	Research and discuss.
Evolution and inheritance.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	1. Life on Earth Timeline	Research and discuss.
Evolution and inheritance.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	2. Fossils and Mary Anning	Research and discuss.
Evolution and inheritance.	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.	1. Guess who? 2. Designer dogs	Research and discuss.
Evolution and inheritance.	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	3. Adaptation	Identify scientific evidence that has been used to support or refute ideas or arguments.
Evolution and inheritance.	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	1. How have they changed?	Identify scientific evidence that has been used to support or refute ideas or arguments.
Evolution and inheritance.	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	2. Natural Selection	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Identifying scientific evidence that has been used to support or refute ideas or arguments.
Light.	Recognise that light appears to travel in straight lines. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	1. How does light travel? 2. Introduction to puppets.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
Light.	Recognise that light appears to travel in straight lines. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	3. Pattern seeking from shadows.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

Light.	Recognise that light appears to travel in straight lines	1. Mirror Image	Conduct experiments using appropriate materials.
Light.	Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes	2. Seeing is believing	Discuss, explain and investigate.
Light.	Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. L.O. Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.	1. Observing the unexpected.	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
Light.		2. Rainbows	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
Electricity.	Use recognised symbols when representing a simple circuit in a diagram	1. Liquorice allsorts circuit diagram.	Create scientific diagrams.
Electricity.	Use recognised symbols when representing a simple circuit in a diagram.	2. It's faulty.	Create scientific diagrams.
Electricity.	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. L.O. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.	1. How bright?	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
Electricity.	Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.	2. Changing light, sound and movement	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
Electricity.	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Use recognised symbols when representing a simple circuit in a diagram.	1. Games galore	Compare and give reasons for variations.
Electricity.	Report and present findings.	2. Electricity past and present	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
The Titanic.	Plan scientific enquiries to answer questions.	1. Floating and sinking. 2. Water as a force. 3. Boat building	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Use test results to make predictions to set up further comparative and fair tests. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
The Titanic.	Report and present finding from enquiries including conclusions, causal relationships and explanations.	1. Sinking the Titanic	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

The Titanic.	Take measurements using a range of scientific equipment.	2. Icebergs	Take measurements, use a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
The Titanic.	Plan scientific enquiries to answer questions.	1. Beating Hypothermia	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
The Titanic.	Report and present finding from enquiries includikng conclusions, causal relationships and explanations.	2. Design and make a Titanic life jacket	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Identifying scientific evidence that has been used to support or refute ideas or arguments.
The Titanic.	Plan scientific enquiries to answer questions.	3. Raising the Titanic	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.