



Year 3 - Science skills progression

Term	Subject Knowledge Objective	Use all or some of the following activities to cover this objective	Working scientifically skills developed in the activities
Rocks, soils and fossils	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	1. Sorting Rocks 2. Being a geologist 3. Moh's Scale of Hardness	Gather, record, classify and present data in a variety of ways to help in answering questions.
Rocks, soils and fossils	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	4 Comparing rocks 5. Permeable or impermeable? 6. Adopt a rock	Setting up simple practical enquiries, comparative and fair tests. Ask relevant questions and use different types of scientific enquiries to answer them.
Rocks, soils and fossils	Compare and group together different kinds of rocks on the basis of appearance and simple physical properties.	1. Sedimentary sandwiches 2. Chocolate metamorphic rocks 3. Chocolate igneous rocks	Compare and classify.
Rocks, soils and fossils	Recognise that soils are made from rock and organic matter.	1. What is soil 2. Shaking soil 3. How much soil is air and water?	Ask relevant questions and use different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests. Set up simple practical enquiries, comparative and fair tests? L.O. Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units using a range of equipment.
Rocks, soils and fossils	Ask relevant questions and use different types of scientific enquiry to answer them.	4. Are all soils the same? 5. Are worms good for the soil? 6. Is soil an important resource?	Ask relevant questions and use different types of scientific enquiries to answer them. L.O. Gather, record, classify and present data in a variety of ways to help in answering questions. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
Rocks, soils and fossils	Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	1. Looking at fossils 2. Making a mould fossil 3. Making a cast fossil	Ask relevant questions using different types of enquiries to answer them.
Rocks, soils and fossils	Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	4. Asking questions about fossils 5. Other kinds of fossils 6. Finding fossils role play	Ask relevant questions and using different types of scientific enquiries to answer them.
Food and our bodies	Identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food, they get nutrition from what they eat.	1. What do humans and other animals need to live? 2. Who eats what? 3. My food diary 4. Bird feeders	Identify and describe.
Food and our bodies	Identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food, they get nutrition from what they eat.	5. Food groups 6. Which food groups do I eat? 7. Sugary drinks 8. School lunches 9. Meal planner	Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
Food and our bodies	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	1. Our skeletons 2. Bones 3. Researching bones 4. Build a skeleton.	Identify and describe.
Food and our bodies	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	1. Protecting the brain 2. Animals without a skeleton 3. Broken bones survey	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
Food and our bodies	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	1. Muscles 2. How do our arm muscles work?	Identify and describe.

Food and our bodies	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	3. Make a model of a muscle 4. Getting to know joints	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
Light and shadows	Recognise that they need light in order to see things and that dark is the absence of light.	1. Sources of light 2. Darkness box 3. Dark area	Set up simple practical enquiries, comparative and fair tests.
Light and shadows	Notice that light is reflected from surfaces.	4. Shiny and dull 5. Finding out about mirrors 6. Concave and convex mirrors	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
Light and shadows	Notice that light is reflected from surfaces.	7. Mirror maths - How many? 8. Mirror maths - Making shapes	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
Light and shadows	Notice that light is reflected from surfaces.	9. Mirror maths - Symmetry 10. Same but different	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
Light and shadows	Recognise that shadows are formed when the light from a light source is blocked by a solid object.	1. Which material is best for making shadows? 2. How is Black Rabbit's shadow made?	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers.
Light and shadows	Find patterns in the way that the sizes of shadows change.	3. Black rabbit 4. Exploring my shadow	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers.
How does your garden grow?	Identify and describe the functions of different parts of flowering plants: roots, stem / trunk, leaves and flowers.	1. Parts of a Plant 2. Plants in our school grounds	Identify and describe.
How does your garden grow?	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.	3. Grow a seed 4. How is water transported in a plant? 5. Multi-coloured	Investigate the way in which water is transported within plants. Set up simple practical enquiries, comparative and fair tests.
How does your garden grow?	Understand how I can ask relevant questions and use different types of Scientific enquiries to answer them.	1. What do I want to know? Asking questions 2. How to answer my questions	Ask relevant questions and using different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests
How does your garden grow?	Explain the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) and how they vary from plant to plant.	3. How much water do plants need to be healthy? 4. Do plants need soil to grow? 5. Do plants need light to grow?	Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
How does your garden grow?	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	1. Parts of a flower 2. What is pollination? 3. Pollination playtime 4. A day in the life of a flower	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
How does your garden grow?	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	5. Lets go on a pollination hunt 6. Parts of a flower 7. How do these seeds spread?	Gather, record, classify and present data in a variety of ways to help in answering questions.
Forces and magnets	Compare how things move on different surfaces.	1. Pushes and pulls	Investigate, compare and describe.
Forces and magnets	Compare how things move on different surfaces.	2. Moving things on different surfaces	Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Forces and magnets	Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	3. Which magnet is the strongest? 4. Magnetism	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Use straightforward scientific evidence to answer questions or to support their findings.
Forces and magnets	Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.	5. Do magnets work through different materials? 6. North and south poles	Set up simple practical enquiries, comparative and fair tests. Use straightforward scientific evidence to answer questions or to support their findings.
Forces and magnets	Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials and not others.	1. Fun magnetic games	Observe and describe.
Forces and magnets	Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	2. Where are magnets used?	Observe and describe.
The nappy challenge	Ask relevant questions and use different types of scientific enquiries to answer them.	1. Exploring a disposable nappy	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Gather, record, classify and present data in a variety of ways to help in answering questions.
The nappy challenge	Ask relevant questions and use different types of scientific enquiries to answer them.	2. Asking questions.: What else do we want to know about a disposable nappy? 3. Checking our questions for maths and scientific language	Ask relevant questions and use different types of scientific enquiries to answer them.
The nappy challenge	Ask relevant questions and use different types of scientific enquiries to answer them.	4. How can we answer our questions?	Ask relevant questions and use different types of scientific enquiries to answer them.
The nappy challenge	Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	5. Which nappy is the most absorbent? 6. Which nappy elastic stretches the furthest? 7. Who invented nappies?	Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Ask relevant questions and use different types of scientific enquiries to answer them.
The nappy challenge	Ask relevant questions and use different types of scientific enquiries to answer them. Gather, record, classify and present data in a variety of ways to help in answering questions. Use straightforward scientific evidence to answer questions or to support their findings.	1. Nappy survey	Ask relevant questions and use different types of scientific enquiries to answer them. Gather, record, classify and present data in a variety of ways to help in answering questions. Use straightforward scientific evidence to answer questions or to support their findings.
The nappy challenge	Ask relevant questions and use different types of scientific enquiries to answer them. Use straightforward scientific evidence to answer questions or to support their findings.	2. Should disposable nappies be banned?	Ask relevant questions and use different types of scientific enquiries to answer them. Use straightforward scientific evidence to answer questions or to support their findings.