

Living in Habitats : Science : Year 2



	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to identify things that are living, things that are dead and things that have never been alive.	Children will begin to identify some life processes which indicate that animals and plants are alive. They will then identify and sort objects and organisms into group: living and non-living things.	- Can children identify living things? - Can children identify living things that have died? - Can children identify things that have never been alive?	- Slides - Worksheet 1A/1B - Picture Cards A/B - Trays/bags for collecting objects (FSD? activity only)
Lesson 2	To understand that living things need to live in suitable habitats.	Children will learn about what a habitat is, and what animals and plants need to survive in them. They will then identify and group animals by their habitats.	- Do children know what a habitat is? - Do children know that animals and plants need to live in habitats they are suited to? - Can children match animals and plants to suitable habitats?	- Slides - Worksheet 2A/2B/2C - Habitat Cards (FSD? activity only) - Animal Cards (FSD? activity only)
Lesson 3	To explore the plants and animals that live in seaside habitats.	Children will identify features of seaside habitats and discuss which plants and animals might live in it, and where. They may then either identify and name a variety of organisms, or sort organisms into those found in seaside habitats, and those found in other habitats.	- Can children identify some animals in a seaside habitat? - Can children identify some plants in a seaside habitat? - Do children recognise how animals and plants in a seaside habitat are linked together?	- Slides - Worksheet 3A/3B/3C - Domino Cards - Picture Cards (FSD? activity only)
Lesson 4	To be able to explore plants and animals in an unfamiliar habitat.	Children will identify characteristics of animals which give clues about the habitats they live in. They will then discuss what a variety of habitats are like, then either describe what they provide for the organisms that live in them, or how organisms are adapted to suit their habitat.	- Can children name some different types of habitats? - Can children describe different types of habitats - Can children compare habitats and the animals and plants that live in them?	- Slides - Worksheet 4A/4B/4C - Picture Cards - Animal Cards (FSD? activity only) - Habitat Cards (FSD? activity only)
Lesson 5	To be able to explore and describe a micro-habitat.	Children will learn about micro-habitats and the organisms that live in them. They may then either explore micro-habitats outside, or describe and categorise given sets of mini-beasts according to some of their characteristics.	- Do children know what a micro-habitat is? - Can children name some micro-habitats? - Can children identify and describe some of the animals that live in micro-habitats?	- Slides - Worksheet 5A/5B/5C - Picture Cards (FSD? activity only)
Lesson 6	To explore food chains in a habitat.	Children will begin to understand how organisms in a habitat are dependencies upon one another, and that these dependencies can be shown as food chains. They may then either complete given food chains, or try to make food chains from a given set of organisms.	- Do children know that animals and plants in a habitat are dependent on each other for food? - Can children construct a simple food chain? - Can children construct food chains that include humans?	- Slides - Worksheet 6A/6B/6C/6D - Label Cards (FSD? activity only) - End of Unit Quiz

Growing Plants : Science : Year 2



Lesson	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To understand that different seeds grow into different plants and to describe them.	Children will look at seeds and seed packets and establish what can be learned from them and how best to plant and grow different seed types. They may then either design seed packets or plant seeds.	- Do the children know seeds grow into plants? - Can the children name any plants that grow from seeds? - Do the children understand seed packets tell us what seeds need to grow?	- Slides - Worksheet 1A/1B/1C - Plant Sheet - A variety of seeds (FSD? activity only) - Seed Labels (FSD? activity only)
Lesson 2	To understand that plants can be grown from bulbs.	Children will learn about bulbs: their large food source, and the times of year at which they grow. They may then either undertake a sequencing activity to show bulb growth, or plant bulbs.	- Do the children know plants grow from seeds and bulbs - Can the children name any plants that grow from bulbs? - Can the children explain why some plants need to grow from a bulb?	- Slides - Worksheet 2A/2B/2C - Picture Cards A/B/C - A variety of bulbs (FSD? activity only) - Bulb Labels (FSD? activity only)
Lesson 3	To be able to explain why and how seeds are dispersed.	Children will learn about fruits: The seeds they contain and some ways in which they are dispersed. They may then either study a variety of fruits or explain how seeds are dispersed in their own words.	- Can children explain why seeds need to be dispersed? - Can children give suggestions as to why fruits have so many seeds? - Can children describe some of the ways in which seeds can be dispersed?	- Slides - Worksheet 3A/3B/3C/3D - Variety of seeded fruits (FSD? activity only)
Lesson 4	To plan, carry out and evaluate an investigation into the conditions that affect germination.	Children will learn about germination, then devise tests to determine the various conditions seeds need to germinate. They may then either conduct an investigation or study and interpret a given set of results.	- Can children ask questions that can be investigated scientifically and suggest how to answer them? - Can children plan and carry out an investigation, making sure it is a fair test? - Can children evaluate their results and draw conclusions?	- Slides - Worksheet 4A/4B/4C/4D - Seeds/Plant pots/Soil/Measuring cylinders/ Water - Results Sheet (FSD? activity only)
Lesson 5	To observe and describe how a plant changes as it matures.	Referring back to prior learning, children will consider how plants change over time. They may then either undertake sequencing activities, or describe stages in the growth of their own plant.	- Can the children explain how their plant has changed over time? - Can the children use scientific words to explain each stage of the plants development? For example 'germination', 'growth', 'leaves', 'stem', 'shoots', 'roots'? - Do the children understand what a plant needs to grow?	- Slides - Worksheet 5A/5B/5C/5D - Time lapse video - Plants grown from seeds or bulbs in lesson 1 or 2 - Picture Cards (FSD? activity only) - End of Unit Quiz slides and sheets

Growth and Survival : Science : Year 2



	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To find out about the offspring of a variety of different animals.	Children will consider why animals have babies, then match parent animals to their offspring.	- Do children know that all animals, including humans, have offspring that grow into adults? - Can children match a variety of adult animals to their offspring? - Do children know that growth from offspring to adult is a gradual process?	- Slides - Worksheet 1A/1B/1C - Picture Cards A/B/C/D
Lesson 2	To find out about the different ways in which animals reproduce.	Children will begin to learn about how animals who give birth to live offspring, and those who lay eggs, reproduce. They will then match and sort animals according to various criteria.	- Do children know that animals have offspring that grow into adults? - Can children describe some of the different ways animals have offspring? - Do children know that not all animals reproduce in the same way?	- Slides - Worksheet 2A/2B/2C/2D - Information Sheet - Animal Cards (FSD? activity only)
Lesson 3	To explore how humans grow as they get older.	Children will learn about ways in which the body grows over time, then either describe some changes in their own words, or conduct a height investigation.	- Do children know that humans grow as they get older? - Do children know that body parts will grow in proportion? - Can children describe the stages of human development?	- Slides - Worksheet 3A/3B/3C/3D - Tape measures/metre rulers (FSD? activity only)
Lesson 4	To find out what animals, including humans, need to survive.	Children will think about the basic needs of animals, such as eating, drinking and breathing. They will consider how these needs vary between species, then explain the needs of various animals in their own words.	- Do children know that all animals, including humans, need food to survive? - Do children know that all animals, including humans, need water to survive? - Do children know that all animals, including humans, need air to survive?	- Slides - Worksheet 4A/4B/4C/4D - Challenge Cards (FSD? activity only) - Various sources of information, e.g. books, internet, fact sheets from pet stores, etc. (FSD? activity only)
Lesson 5	To explore the environment as a factor of survival for animals, including humans.	Children will learn about ways in which habitats provide some things that animals need, and how animals are best suited to specific environments.	- Do children know that animals need air, water and food to survive? - Do children know that an animal's survival often depends on its environment? - Can children suggest reasons for why a species might become extinct?	- Slides - Worksheet 5A/5B/5C/5D - Research Cards (FSD? activity only) - Variety of information sources (FSD? activity only)
Lesson 6	To find out how to eat a healthy, balanced diet.	Children will learn about foods: which are more/less healthy, then either sort foods, or plan, prepare and describe some healthy foods.	- Do children know why we eat and why it is important to eat a balanced diet? - Do children know which foods we should eat most and least of? - Can children suggest meals that would be good for them?	- Slides - Worksheet 6A/6B/6C/6D - Picture Cards - Balanced Plate sheet - Food Pyramid sheet - Variety of fruits and vegetables (FSD? activity only)
Lesson 7	To find out why exercise is important to keep our bodies healthy.	Children will consider the importance of exercise, and how different exercises, sports and activities affect different parts of the body. They may then either undertake a sorting activity, or plan a course of exercises.	- Do children know that exercise is an important part of keeping our bodies healthy? - Can children identify some of the changes that take place in our body when we exercise? - Can children name various ways they can exercise different parts of their bodies?	- Slides - Worksheet 7A/7B - Picture Cards - PE equipment, e.g. bean bags, hoops, etc. (FSD? activity only)

Exploring Everyday Materials : Science : Year 2



	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to identify a variety of materials and sort them according to a variety of criteria.	Children will identify and describe some common materials, then think of similar materials that could be grouped in the same ways.	- Can children identify and name a variety of different materials? - Can children organise a variety of materials into groups according to given criteria? - Can children organise a variety of materials into groups according to their own criteria?	- Slides - Picture Sheet - Worksheet 1A/1B/1C - Variety of different materials (FSD? activity only) - Hoops (FSD? activity only)
Lesson 2	To be able to identify natural and man-made materials.	Children will identify some natural and man-made materials and describe them, then continue to find out about, sort and describe a range of materials.	- Can children recognise that some materials are naturally occurring and some are not? - Can children name some naturally occurring materials? - Can children identify objects that are made from naturally occurring materials?	- Slides - Worksheet 2A/2B/2C - Variety of natural and man-made materials (FSD? activity only) - Paper, glue, scissors for collages (FSD? activity only)
Lesson 3	To identify that some materials can change shape by squashing, bending, stretching and twisting, and others can't.	Children will squash, bend, twist and stretch a range of materials, then predict how other materials might behave. They will also conduct investigations, recording their findings.	- Do children know that some materials change shape when you bend, squash, stretch or twist them? - Can children identify some materials that can change shape temporarily? - Can children identify some materials that cannot change shape at all?	- Slides - Worksheet 3A/3B/3C/3D - Plasticine, elastic bands, stones - Variety of objects to test (FSD? activity only)
Lesson 4	To identify the suitability of metal and plastic for a variety of purposes	Children will look at a variety of objects made using metal or plastic and consider why each material has been used. They will go on to sort and describe a range of plastic and metal objects.	- Do children know that metal and plastic are different materials? - Can children identify some different things metal and plastic are used for? - Can children explain why a particular material is chosen to be made into an object.	- Slides - Worksheet 4A/4B/4C - Variety of metal and plastic objects - Fact Cards (FSD? activity only)
Lesson 5	To identify different products that can be made from wood and their features and purposes.	Children will learn about how trees are turned into materials we use. They will then either describe how paper is made in their own words, or make and test paper models.	- Do the children know that paper and cardboard are made from wood? - Can the children identify features of wood, cardboard and paper? - Can children explain the advantages and disadvantages of using different wood products?	- Slides - Worksheet 5A/5B/5C - Fact Sheet A/B - Challenge Card (FSD? activity only) - Eight sheets of paper per group, sticky tape, one toy car, rubber (FSD? activity only)
Lesson 6	To identify different materials that are used for the same product.	Children will consider why different objects are made using metal or plastic, then describe the uses of objects and the materials they are made from.	- Do the children know that different materials can be used to make the same product? - Can the children identify which materials have been used in a product? - Can children explain how the purpose of a product might affect the material that is used?	- Slides - Worksheet 6A/6B/6C/6D/6E - Objects: teddy bear, pencil, book, bottle, table, spade, wall, fence (FSD? activity only)
Lesson 7	To identify material inventions and discoveries.	Children will learn about some man-made materials, their uses and their inventors. They will then describe some products and do an end of unit quiz.	- Do the children know that products are improved and changed over time? - Can the children identify the different ways materials have been used? - Can children explain why their invention is an improvement on the original product?	- Slides - Worksheet 7A/7B/7C/7D - Reason Cards - Invention Sheet A/B/C (FSD? activity only)

Super Scientists : Science : Year 2



	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To investigate the effect gravity has on everyday objects.	Children will learn about some of the work of Isaac Newton, then explore ways in which the speed of falling objects can be affected during either included practical activity.	- Can the children use their own knowledge to make predictions? - Can the children observe patterns? - Can the children talk about what they have found out?	- Slides - Worksheets 1A/1B/1C - Spinner Template - Equipment: stopwatches/metre rulers/paper clips/scissors - Equipment: stopwatches/marbles/cardboard boxes/cardboard tubes/tape (FSD? activity only) - A selection of ramps/a toy car (plenary only)
Lesson 2	To investigate what happens to light when it passes through different transparent objects.	Children will learn about Isaac Newton's work and discoveries regarding light, then conduct practical investigations where they will change the ways in which light passes through transparent objects.	- Can the children use their own experiences to make predictions? - Can the children observe patterns? - Can the children talk about what they have found out?	- Slides - Mindmap - Worksheets 2A/2B/2C - Equipment: variety of prisms/torches - Coloured paper - Modelling Sheet A/B - Telescope Instructions (FSD? activity only) - Equipment: magnifying glasses (different strengths), thin cardboard, tape (FSD? activity only) - Tray of water/mirror/torch(Plenary only)
Lesson 3	To investigate whether sound can pass through materials.	Children will learn about some of the work of Alexander Graham Bell, then conduct practical investigations to explore ways in which sound travels through different materials.	- Can the children use their own experiences to make predictions? - Can the children observe patterns? - Can the children talk about what they have found out?	- Slides - Mindmap - Worksheets 3A/3B/3C - Telephone Instructions - Equipment: cups/string/wool/scissors/modelling clay - Screen to divide each child, paper and building blocks (FSD? activity only) - Picture Cards A/B (FSD? activity only)
Lesson 4	To investigate our senses and reflexes.	Children will learn about some significant historical discoveries about the body, then conduct practical investigations where they either test their reflexes, or use their senses of touch, taste and smell.	- Can the children use their own experiences to make predictions? - Can the children observe patterns? - Can the children talk about what they have found out?	- Slides - Mindmap - Worksheets 4A/4B/4C/4D - Rulers - Feely bags or boxes/a variety of objects to put inside them/a selection of things to smell and fruits and vegetables to taste/plastic cups/cotton wool/plates (FSD? activity only) - Three slices of bread/three sealable sandwich bags/ cup of water/table spoon (Plenary)
Lesson 5	To investigate how germs are transferred by touching things.	Children will learn about the work of significant scientists who studied how diseases. They will then either create information texts about staying healthy, or explore how germs are transmitted using a scientific model.	- Can the children use their own experiences to make predictions? - Can the children observe patterns? - Can the children talk about what they have found out?	- Slides - Mindmap - Worksheets 5A/5B - Fact Sheet - A4 paper/video camera - Washing Hands Rhyme (FSD? activity only) - Equipment: basins of cold water/cooking oil/glitter or cinnamon/paper towels (FSD? activity only)
Lesson 6	To investigate electrical circuits to make a lightbulb light up.	Children will learn about some of the work of Thomas Edison, then make, test, change or improve their own electrical circuits.	- Can the children use their own experiences to make predictions? - Can the children observe patterns? - Can the children talk about what they have found out?	- Slides - Mindmap - Worksheets 6A/6B/6C/6D/6E/6F - Quiz Instructions - Fact Sheet - Equipment: split pins/wires/bulb/bulb holder/battery - Equipment: wires/bulb/bulb holder/battery (FSD? activity only) - Symbol Key - optional (FSD? activity only)