Thurlbear Primary School Science Curriculum Progression Overview

SCIENCE STRAND: PLANTS							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	Make simple observations about plants and can explain why some things occur	Name common plants and describe the basic structure of flowering plants, including deciduous and evergreen. Identify and describe the basic structure of a variety of common flowering plants, including tress.	Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Explore 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. Investigate the way in which water is transported within plants. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	**(No discrete unit. Linked content taught in Living things)** *Recognise that living things can be group in a variety of ways*	**(No discrete unit. Linked content taught in Living things)** *Describe the differences in lifecycles between a mammal, an amphibian, an insect and a bird.*	**(No discrete unit. Linked content taught in Living things)** *Describe how living things are classified into broad groups according to common characteristics and based on similarities and differences, including micro-organisms, plants and animals.* *Give reasons for classifying plants and animals based on specific characteristics.*
Key Vocabulary	plant, leaf, stem, flower, grow, rain, sun, water, soil, seed,	leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud. Names of trees in local area, garden and wild flowering plants.	As year 1+ light, shade, sun, warn, cool, water, grow, healthy.	Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal- wind dispersal, animal dispersal, water dispersal, pollen, roots, stem, trunk, leaves, absorb, nutrients, reproduce, germination, stamen, style.			
Enquiry Types		Comparative testing Research Observation over time Pattern seeking Identifying and classifying	Comparative testing Research Observation over time Pattern seeking Identifying and classifying	Comparative testing Research Observation over time Pattern seeking Identifying and classifying			

Thurlbear Primary School Science Curriculum Progression Overview

Working Scientifically	Observation classifying	Questioning Interpreting results Recording Predicting observation	Questioning Prediction Setting up tests Observation and measurement Recording Interpreting results Evaluating	Recording Setting up tests Evaluating Interpreting Observation and measurement			
Links to suggested texts	Jasper's Beanstalk Supertato	The Tiny Seed, Eric Carle Leaf Man, Lois Ehlert Jack and the Beanstalk	Sam plants a Sunflower	How to Grow a Dragon			
Science Capital	Farming		Carl Linnaeus George Washington Carver Alexander Von Humbolt	Botantists Including: As year 2 +Oliver Rackham			
SCIENCE STRAND: ANIMALS INCLUDING HUMANS							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	Health and self care- children notice changes in their bodies after exercise such as heart beating faster. Children understand the importance of handwashing.	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey.	Describe the changes as humans develop from birth to old age. (Linked content taught in living things) *Describe the differences in lifecycles between a mammal, an amphibian, an insect and a bird.* *Describe the life processes of reproduction in some plants and animals*	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Identify and name the main parts of the human circulatory system and describe the function of the heart, blood vessels and blood. Describe the ways in which nutrients and water are transported within animals.

Thurlbear Primary School Science Curriculum Progression Overview

Key Vocabulary	Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, heart,	Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, reptile, amphibian, mammal, omnivore, carnivore, herbivore, all senses.	Offspring, grow, adults, nutrition, reproduce, survival, water, food, air, exercise, hygiene, survival, exercise.	Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, skull, ribs, spine, muscles, joints.	Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, incisor, canine, herbivore, omnivore.	Puberty, vocabulary linked to describe a range of sexual characteristics.	Heart, pulse, rate, pumps, blood, blood vessel, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs, lifestyle
Enquiry Types		Comparative testing Research Pattern seeking Identifying and classifying	Comparative testing Research Observation over time Pattern seeking Identifying and classifying	Comparative testing Research Pattern seeking Identifying and classifying	Pattern seeking Research Identifying and classifying	Research Pattern seeking Identifying and classifying Observation over time	Comparative testing Research Pattern seeking Identifying and classifying Observation
Working Scientifically	Questioning Prediction Observation and measurement	Questioning Prediction Observation and measurement Recording Interpreting results	Questioning Prediction Observation and measurement Setting up tests Recording Interpreting results Evaluating	Questioning Prediction Observation and measurement Recording Interpreting results Evaluating	Questioning Prediction Observation and measurement Recording Interpreting results Evaluating	Prediction Recording Interpreting results Evaluating Observation and measurement	Observation and measurement Setting up test Recording Interpreting results
Links to suggested texts	Dogger, Shirley Hughes Super, Duper you Meisha Makes Friends	The Tiger that came to Tea by Judith Kerr	Flip, Flap Zoo		The Story of the Little Mole		Pig Heart Boy by Malorie Blackman
Science Capital	Doctor nurse	David Attenborough	Health Care Assistant	Physiotherapist	John Hams Scatologist Dentist	Midwife	Santorio Dr Kat Dibb Biomedical Scientist Dwain Chambers
SCIENCE STRAND: LIVING THINGS							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	They know about similarities and differences between themselves and others, and among families, communities and traditions. They can talk about their own environment The world: Show care and concern for living things and the environment	**(No discrete unit. Linked content taught in plants)** *Name common plants and describe the basic structure of flowering plants, including deciduous and evergreen.* **(content taught in Humans including animals)**	Explore and compare the differences between things that are living, dead, and things that have never been alive. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different	**(No discrete unit. Linked content taught in plants)** *Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.*	Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local environment. Recognise that environments can	Describe the differences in the lifecycles of a mammal, an amphibian, an insect and a bird. Describe the life processes of reproduction in some plants and animals.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro - organisms, plants and animals. Give reasons for classifying plants and

Thurlbear Primary School Science Curriculum Progression Overview

		Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. *Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)*	kinds of animals and plants, and how they depend on each other. Identify and name a variety of plants and animals in their habitats, including microhabitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.		change and that this can sometimes pose dangers to living things.		animals based on specific characteristics **Evolution and inheritance** Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
Key Vocabulary			Living, dead, never been alive, suited, suitable, basic need, food, food chain, shelter, move, feed, names of local habitats e.g. pond, woodland, names of micro habitats e.g. under logs, in bushes etc.		Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate.	Lifecycle, mammal, amphibian, germination, seed formation, insect, bird, pollination, life processes, plants, animals, reproduction, environment, dispersal, growth, living, eggs, and seeds.	Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non - flowering. Evolution Offspring, sexual reproduction, vary, characteristics, suited, adapted,environment, inherited, species, fossils.
Enquiry Types			Identifying and classifying Research Pattern finding		Identifying and classifying Research Pattern finding	Identifying and classifying Research Pattern finding Comparative testing	Identifying and classifying Research Pattern finding Observation over time
Working Scientifically	Observation Questioning		Questioning Recording Interpreting results		Questioning Observation and measurement Recording Interpreting results	Questioning Prediction Recording Interpreting results Evaluating	Questioning Prediction Observation and measurement Recording

Thurlbear Primary School Science Curriculum Progression Overview

							Interpreting results Evaluating
Links to suggested texts			Mummy Can I have a Penguin? story		Duffy's Lucky Escape	Beetle Boy M G Leonard	The Molliebird, Moth, Darrwin's Dragons
Science Capital					Steve Irwin	Jane Goodall David Attenborough	Steve Irwin, Aristotle Edward Jenner Alexander Fleming Carl Linnaeus Charles Darwin, Palaeontologist
SCIENCE STRAND: MATERIALS							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	Moving and handling: Introduce and encourage children to use the vocabulary of manipulation, e.g. squeeze and prod. The world: Can talk about why things happen and how things work. Exploring media and materials- notice changes in properties as they are transformed through becoming wet, dry, flaky or fixed. Think about cause and effect.	Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	**Rocks and Soils** Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Describe in simple terms how fossils are formed when things that have lived are trapped within a rock. Recognise that soils are made from rocks and organic matter. **(Linked content taught in forces.)** *Notice that some forces need contact between two objects but that magnetic forces can act at a distance.*	**States of Matter** Compare and group materials together, according to whether they are solids, liquids or gases (states of matter) Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday	**(No discrete unit. Linked content taught in 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.*

Thurlbear Primary School Science Curriculum Progression Overview

						materials, including metals wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials and this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	
Key Vocabulary	Wet, dry, shiny, dull, bendy, stiff, squashy, hard/soft, lumpy, wrinkly. Smooth, rough.	Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through.	Names of materials: wood, plastic, glass, metal, water, rock, brick, paper, fabric, card, rubber, suitable/unsuitable, use/useful, hard/soft, stretchy/stiff. Rigid/flexible, waterproof/absorbent, strong/weak, rough/smooth, transparent/opaque, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching	Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb, water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil.	Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle	Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/not reversible, change, burning, rusting, new material.	
Enquiry Types	Identifying and classifying Comparative testing	Identifying and classifying Pattern finding Comparative testing	Identifying and classifying Research Pattern finding Comparative testing	Identifying and classifying Research Observation over time Comparative testing	Identifying and classifying Observation over time Pattern finding Comparative testing	Identifying and classifying Research Pattern finding Comparative testing Observation over time	
Working Scientifically	Observation Comparing Describing Identifying	Prediction Observation and measurement Recording Setting up tests Evaluating	Prediction Observation and measurement Recording Setting up tests Interpreting results	Observation and measurement Recording Setting up tests Interpreting results	Prediction Observation and measurement Recording Setting up tests Interpreting results	Prediction Observation and measurement Recording Setting up tests Interpreting results	

Thurlbear Primary School Science Curriculum Progression Overview

			Evaluating			Evaluating	
Links to suggested texts		That's not my robot	The Three Little Pigs	Stone Age Boy Stig of the Dump			
Science Capital		Tim Peake Mackintosh	John Dunlop	Mary Anning Geologist Ground investigation engineer	Dr Pearl Agyakwa	Spencer Silver Arthur Fry	
SCIENCE STRAND: SEASONAL CHANGES/EARTH AND SPACE							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	They show concern and care for the environment and can notice changes and differences. Develops an understanding of decay and changing over time	Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.		**(No discrete unit. Linked content taught in Light)** *Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous and that there are ways to protect our eyes. Recognise that shadows are formed when the light source is blocked by a solid object. Find patterns in the way the size of the shadows change*		**<u>Earth and Space</u>** Describe the movement of the Earth and other planets, relative to the sun in the solar system. Describe the movement of the moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use Earth rotation to explain day and night due to the apparent movement of the sun across the sky. **(Linked content taught in Forces)** *Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.*	**(No discrete unit. Linked content taught in Light)** *Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that casts them.*
Key Vocabulary	Snow, wind, rain, sun, day, night, stormy, cloudy, hot, cold, foggy.	Weather (sunny, rainy, windy, snowy etc) Seasons (winter, summer, spring,				Earth, sun, moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune,	

Thurlbear Primary School Science Curriculum Progression Overview

		autumn) sun, sunrise, sunset, Day length				Pluto (dwarf planet), spherical, solar system, rotates, star, orbit, planets, axis, night, day, season, galaxy. Meteorite.	
Enquiry Types	Observation over time Pattern finding Research	Identifying and classifying Research Pattern finding Comparative testing Observation over time				Identifying and classifying Research Pattern finding Comparative testing Observation over time	
Working Scientifically	Questioning Observation Recording	Prediction Observation and measurement Recording Questioning Interpreting results Evaluating				Observation and measurement Recording Questioning Interpreting results	
Links to suggested texts		Snow Rabbit, Spring Rabbit Percy the parkkeeper series				The Jamie Drake Equation, Christopher Edge Hidden Figures Counting on Katherine	
Science Capital		Meterologist				Neil Armstrong, Buzz Aldrin, Tim Peake, Helen Sharman, Katherine Johnson, Dorothy Vaughan, Mary Jackson	
SCIENCE STRAND: LIGHT AND SOUND							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	The world: Children respond to their senses: sights, sounds and smells in the environment.	**(No discrete unit. Linked content taught in materials)** *Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties* **(linked content taught in Seasonal changes)**	**(No discrete unit. Linked content taught in materials)** *Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.* **(linked content taught in plants)**	Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous and that there are ways to protect our eyes.	**SOUND** To identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between pitch of a sound and features of the object that produced it.	**(No discrete unit. Linked content taught in materials)** *Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets*	Recognise that light travels in straight lines. 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

Thurlbear Primary School Science Curriculum Progression Overview

		Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies. **(linked content taught in Animals inc humans)** *Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense*	*Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy*	Recognise that shadows are formed when the light source is blocked by a solid object. Find patterns in the way the size of the shadows change **(linked content taught in plants)** *Explore 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.*	Find patterns between the volume of a sound and the strength of the vibrations that produced it. Recognise that sound gets fainter as the distance from the sound source increases. *Recognise that environments can change and that this can sometimes pose dangers to living things.*	**(Linked content taught in Earth and Space)** *Use Earth rotation to explain day and night due to the apparent movement of the sun across the sky.*	objects and then to our eyes. Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that casts them.
Key Vocabulary	Smell, sound, sight, see, look,			light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous	sound, source, vibrate, vibration, travel, pitch, volume, faint, loud, insulation.		year 3 vocabulary- Plus Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous
Enquiry Types	Observation Questioning			Pattern finding Comparative testing Observation over time	Identifying and classifying Research Pattern finding Comparative testing		Identifying and classifying Research Pattern finding
Working Scientifically				Prediction Observation and measurement Recording Setting up tests Interpreting results Evaluating Questioning	Observation and measurement Recording Setting up tests Evaluating		Prediction Observation and measurement Recording Interpreting results Evaluating
Links to suggested texts				Darkest Dark	Sound collector poem, Roger McGough		
Science Capital				Charlie Dimmock	Alexander Graham Bell		Optician

Thurlbear Primary School Science Curriculum Progression Overview

					F1Engineers		
SCIENCE STRAND: FORCES							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	Moving and handling:Introduce and encourage children to use the vocabulary of manipulation, e.g squeeze and prod. Technology- shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.	**(No discrete unit. Linked content taught in materials)** *Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties*	**(No discrete unit. Linked content taught in materials)** *Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.* *Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.*	Compare how things move on different surfaces. 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. 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. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.		Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. **(Linked content taught in Earth and Space)** *To describe the movements of the Earth, and other planets, relative to the Sun in the solar system*	
Key Vocabulary	Push, pull, twist, stretch, turn, open, lift, squeeze, pinch, flick, tap			Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel. Magnetic material, metal, iron, steel, poles, north pole, south pole		Force, Gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears.	

Thurlbear Primary School Science Curriculum Progression Overview

Enquiry Types	Observation over time Comparative testing			Identifying and classifying Research Pattern finding Comparative testing		Research Pattern finding Comparative testing Observation over time	
Working Scientifically	Observation and measurement Questioning Interpreting results Setting up tests			Prediction Observation and measurement Recording Questioning Interpreting results Evaluating Setting up tests			
Links to suggested texts				The Gigantic turnip			
Science Capital				John McAdam Sir Isaac Newton Albert Einstein		Galileo Newton Helen Margolis	
SCIENCE STRAND: ELECTRICTY							
Year	**EYFS**	**1**	**2**	**3**	**4**	**5**	**6**
Scientific knowledge **National Curriculum requirements**	Technology- shows skills in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movement or new images.	**(No discrete unit. Linked content taught in materials)** *Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties*	**(No discrete unit. Linked content taught in materials)** *Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.*		Identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp	**(No discrete unit. Linked content taught in materials)** *Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets.*	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 potion of switches. Use recognised symbols when representing a simple circuit in a diagram.

Thurlbear Primary School Science Curriculum Progression Overview

					lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors.		
Key Vocabulary					Electrical, appliance, mains, plug, circuit, component, cell, battery, positive, negative, connect/connectors, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non - metal, symbol.		Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage NB Children do not need to understand what voltage is but will use volts and voltage to describe different batteries. The words cells and batteries are used interchangeably
Enquiry Types	Observation Comparative testing Pattern finding				Identifying and classifying Research Pattern finding Comparative testing Observation over time		Identifying and classifying Research Pattern finding Comparative testing
Working Scientifically	Predicting				Prediction Recording Questioning Interpreting results Evaluating		Prediction Observation and measurement Recording Questioning Interpreting results
Links to suggested texts					Oscar and the bird book		The Boy who invented TV
Science Capital					Volta Faraday Henry Snaith		Volta Faraday Becquerel

Thurlbear Primary School Science Curriculum Progression Overview

Scientific enquiry skills and Working scientifically skills are taught throughout the Science content as part of our progressive curriculum. The skills are identified by the children in the unit of learning by the following symbols:

Our Scientific Enquiry Skills

 Comparative/Fair testing	 Research	 Observation over time	 Pattern seeking	 Identifying and classifiying

Our Working Scientifically Skills

 Questioning	 Prediction	 Setting up tests	 Observation and measurement	 Recording	 Interpreting results	 Evaluating