



The T-RF- Science Curriculum Coverage EYFS



Biology		Chemistry	Physics	
Living things and their habitats	Plants	Materials		
F1	<ul style="list-style-type: none"> I am beginning to explore the world around me and search for living things. I am beginning to understand how to look after the outdoor plants and any living creatures. I know that I need to care for the natural environment. I can begin to name parts of my body and understand that I am growing. I understand life cycle of a butterfly and can talk about each stage when looking at a picture 	<ul style="list-style-type: none"> I can plant seeds and care for them by watering them and observing their changes. I know that plants need sunshine. I can begin to talk about what I see using a wide range of vocabulary. I can observe the life cycle of a sunflower 	<ul style="list-style-type: none"> I can use all my senses in hands-on exploration of natural materials. I can begin to compare materials which have similar/different properties. 	<ul style="list-style-type: none"> I can investigate and explore objects, finding out how things work. I can begin to talk about forces I can feel, such as pushing and pulling. I can begin to talk about what I see outside and the things I have noticed. I am beginning to notice things going on around me e.g. the weather.
F2	<ul style="list-style-type: none"> I can describe my body and how it has changed over time. I can begin to use words like nocturnal, camouflage and predator to describe animals and habitats. I can show what I know about the world by looking at and drawing animals, plants and environment. I can talk about important changes in the natural world including how seasons change plants, trees and where animals live. I Understands life cycle of a bean plant 	<ul style="list-style-type: none"> I can see and talk about the changes I see in plants and trees throughout the seasons. I can name and describe some plants such as daisy, sunflower. I can explain how to plant seeds and care for plants. I can use books and what I have learnt to explain some similarities and differences between the natural world around me and other environments. I can draw pictures of animals and plants I Understands life cycle of a frog. 	<ul style="list-style-type: none"> I can explore and talk about what I notice is different between materials I can talk about how and why things freeze and melt. 	<ul style="list-style-type: none"> I can talk about the forces I can feel such as pushing and pulling I can talk about my environment and the weather. I can confidently describe how the weather is different throughout the year. Talks about the seasons and changes they have observed.



The T-RF Science Curriculum Coverage EYFS Vocabulary



Biology		Chemistry	Physics
Living things and their habitats Head Eyes Nose Mouth Ears Hands Fingers Feet Toes Arm Leg Animal Human Animal Fish Birds	Plants Tree Leaf Flower Petals Trunk Fruit Branch Roots Laves Bulb Flowers Seed Stem Blossom Buds Bulb Sunflower Rose Daisy	Materials Material Metal Wood rock Plastic Hard Glass Soft Paper Fabric Material Smooth Shiny Rough	Night Day Autumn Summer Spring Winter Moon Sun Melting Freezing Shadows Floating Sinking

Early Learning Goal: The Natural World

Children at the expected level of development will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.



The T-RF- Science Curriculum Coverage Year 1 Cycle A and B



Biology		Chemistry	Physics	
Animals, including humans	Plants	Everyday Materials	Seasonal changes-ongoing	
<p>NC: Pupils should be taught to :</p> <ul style="list-style-type: none"> 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 	<p>NC: Pupils should be taught to :</p> <ul style="list-style-type: none"> identify and name a variety of common wild and garden plants, including deciduous and evergreen trees identify and describe the basic structure of a variety of common flowering plants, including trees 	<p>NC: Pupils should be taught to :</p> <ul style="list-style-type: none"> 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 	<p>NC: Pupils should be taught to :</p> <ul style="list-style-type: none"> Observe changes across the four seasons . Observe and describe weather associated with the seasons and how day length varies. 	
Year 1	<ul style="list-style-type: none"> I can identify and label parts of the human body. I know how to link the correct part of the human body to each sense. I classify and know animals by what they eat. I know how to sort animals in to groups – fish, mammals, amphibians, reptiles I know how to sort living and non living things I understand that many animals have similar structures- that enable them to live 	<ul style="list-style-type: none"> I can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. I can name and identify the petals, stem, leaves and root of a plant. I know and can name the root, trunk, branch and leaves of a tree. I can name trees on our school field 	<ul style="list-style-type: none"> I can distinguish between an object and the material from which it is made. I know the material that an object is made from. I know the difference between wood, plastic, glass, metal, water and rock. I know about the properties of a material and use words to describe them, e.g. waterproof, hard, soft, bendy I group objects based on the materials they are made from. 	<ul style="list-style-type: none"> I observe and know about the changes in the seasons. I name the seasons and know about the type of weather in each season. I know that there is less daylight in the winter and can talk about how that affects them.



The T-RF- Science Curriculum Coverage Year 1

Vocabulary



Biology		Chemistry	Physics
<p>Animals, including humans</p> <p>Mammals Fish Reptiles Birds Amphibians Carnivore Herbivore Omnivore Common structure of animals and humans including: head, face, ears, hair, eyes, nose, mouth, teeth, cheek, chin, neck, body, arms, hands, fingers, paws, fins, wings, legs, feet, toes, tail, skin, scales, fur, feathers</p> <p>Sense Smell, touch, hear, taste, see</p>	<p>Plants</p> <p>Petals Stem Leaves Bulb Flower (blossom), Petals Fruit Seeds Trunk Branches, Root Twigs Crown Tally Species</p> <p>(Children will also be taught the names of common native species of trees and plants.)</p> <p>Names of plants in their local environment for example grass, daisy, buttercup, dandelion, Daffodil</p>	<p>Everyday Materials</p> <p>Materials Translucent Wood Metal Plastic Glass Object properties Paper Water Rock Brick Fabric Elastic Foil Rubber Wool clay Hard/soft Bendy/not bendy, Rough/bumpy/smooth Stretchy/ squashy Brittle/stiff/rigid Shiny/ dull Waterproof/not waterproof Absorbent/not absorbent Opaque/transparent</p>	<p>Seasonal changes- Ongoing</p> <p>Winter Spring Summer Autumn Change Weather Day / Night Temperature Wind Hail Sleet Rain Cloud Snow Sun Season Sunrise day light , Moon Night Dark / sunrise / sunset Weather Wet Dry Wind Temperature Hot Cold Thermometer Degrees Celsius Deciduous, evergreen tree</p>

The T-RF- Science Curriculum Coverage Year 2 Cycle A and B



Biology

Chemistry

Physics

	Living Things and their habitats	Animals, including humans	Plants	Everyday Materials	Seasonal changes- Ongoing No year 2 content
	<p>NC Pupils should be taught to :</p> <ul style="list-style-type: none"> 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 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 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 	<p>Pupils should be taught to :</p> <ul style="list-style-type: none"> 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 	<p>NC: Pupils should be taught to :</p> <ul style="list-style-type: none"> 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 	<p>NC: Pupils should be taught to :</p> <ul style="list-style-type: none"> Observe changes across the four seasons . Observe and describe weather associated with the seasons and how day length varies.
Year 2	<ul style="list-style-type: none"> I identify things that are living, dead and never been alive. I know how a specific habitat provides for the basic needs of things living there(plants and animals) I identify and name plants and animals in a range of habitats I match living things to their habitat I know how animals find their food I name some different sources of food for animals I know and can explain a food chain 	<ul style="list-style-type: none"> I know the basic stages in a life cycle for animals, including humans I know what animals and humans need to survive I know why exercise a balanced diet, and good hygiene are important for humans 	<ul style="list-style-type: none"> I know how seeds and bulbs grow in to plants I know that a plant needs water, light and a suitable temperature in order to grow and stay healthy 	<ul style="list-style-type: none"> I identify and name a range of materials , including wood, metal, plastic, grass, brick, rock, paper and cardboard. I know why a material may or may not be used for a specific job I know how materials can be changed by squashing, bending, twisting and stretching. 	<ul style="list-style-type: none"> No YEAR " CONTENT _ HOWEVER WE FEEL THIS IN AN IMPORTANT PART OF PUR CURRICULUM



The T-RF- Science Curriculum Coverage Year 2

Vocabulary



Biology		Chemistry	Physics	
<p>Living things and their habitats</p> <p>Living, dead, non-living Habitat micro habitat food chain Field, hedgerow, pond, woodland, seashore ocean rainforest, Arctic desert Air food, Water shelter Heat Warmth Sun</p> <p>Recap Amphibians Carnivore Herbivore Omnivore</p>	<p>Animals, including humans</p> <p>Reproduce, offspring, grow, adults –(all animal types)</p> <ul style="list-style-type: none"> Survival, water, food, air, shelter Exercise, fit, healthy, food, fruit, vegetables, meat, fish, eggs, nuts, pulses, Dairy Common names of fish, amphibians, reptiles, birds, mammals including pets and those found in the local environment Common structure of animals and humans including: head, face, ears, hair, eyes, nose, mouth, teeth, cheek, chin, neck, body, arms, hands, fingers, paws, fins, wings, legs, feet, toes, tail, skin, scales, fur, feathers Herbivore, carnivore, omnivore 	<p>Plants</p> <p>Seed bulbs, grow, healthy, water, light, temperature, soil, nutrients</p> <p>(Children will also be taught the names of common native species of trees and plants.)</p> <p>Recap Leaves, flowers, blossom, petals, fruit, roots, trunk branches, stem</p> <p>Build up Names of plants in their local environment for example holly, daffodil, tulip etc. and plants we grow to eat such as lettuce, tomatoes, cucumber, radish, herb etc.</p>	<p>Everyday Materials</p> <p>Materials Translucent Squashing Bending Twisting Wood Metal Plastic Glass Object properties Paper Water Rock Brick Fabric Elastic Foil Rubber Wool clay Hard/soft Bendy/not bendy, Rough/bumpy/smooth Stretchy/ squashy Brittle/stiff/rigid Shiny/ dull Waterproof/not waterproof Absorbent/not absorbent Opaque/transparent</p>	<p>Seasonal changes- Ongoing</p> <p>Winter Spring Summer Autumn Change Weather Temperature Wind Hail Sleet Rain Cloud Snow Sun Season Sunrise day light , Moon Night Dark Weather Wet Dry Wind Temperature Hot Cold Thermometer Degrees Celsius</p>



The T-RF- Science Curriculum Coverage Year 3/4 Cycle A



Biology		Chemistry	Physics	
All living things and their habitats	Animals, including humans	Rocks	Forces and Magnets	Sound
<p>NC –</p> <ul style="list-style-type: none">To recognise that living things can be grouped in a variety of ways.To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.To recognise that environments can change and that this can sometimes pose dangers to living things.	<p>NC –</p> <ul style="list-style-type: none">To 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.To 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	<p>NC –</p> <ul style="list-style-type: none">To compare and group together different kinds of rocks on the basis of their appearance and simple physical propertiesTo describe in simple terms how fossils are formed when things that have lived are trapped within rockTo recognise that soils are made from rocks and organic matter	<p>NC –</p> <ul style="list-style-type: none">To compare how things move on different surfaces.To notice that some forces need contact between two objects, but magnetic forces can act at a distance.To observe how magnets attract or repel each other and attract some materials and not others.To 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.To describe magnets as having 2 poles.predict whether 2 magnets will attract or repel each other, depending on which poles are facing.	<p>NC –</p> <ul style="list-style-type: none">To identify how sounds are made, associating some of them with something vibrating.To recognise that vibrations from sounds travel through a medium to the ear.To find patterns between the pitch of a sound and features of the object that produced it.To find patterns between the volume of a sound and the strength of the vibrations that produced it.To recognise that sounds get fainter as the distance from the sound source increases.



The T-RF- Science Curriculum Coverage Year 3/4 Cycle A



Biology		Chemistry	Physics	
All living things and their habitats	Animals, including humans	Rocks	Forces and Magnets	Sound
<ul style="list-style-type: none">• I can group living things in a variety of ways.• I can use classification keys to group living things.• I know that warmer temperatures are melting ice and making the habitat's smaller at the poles.	<ul style="list-style-type: none">• <i>I know the stages of growth in humans and can name these.</i>• <i>I know the function of the skeletal system in humans and animals.</i>• <i>I know the function of different human teeth.</i>• <i>I can identify the main parts of the digestive system.</i>• <i>I know the function of some of the organs in the digestive system.</i>• <i>I know importance of balanced diet and can describe one.</i>	<ul style="list-style-type: none">• I can group rocks together.• I can name some rocks.• I know soils are made from rocks and organic matter.• I know how fossils are formed.• I know the work of Mary Anning.	<ul style="list-style-type: none">• I know what friction is and that surfaces effect it.• I know that <u>most</u> forces require contact between two objects.• I know that magnetic force requires <u>no</u> contact.• I know that magnets have two poles and they are North and South.• I know when poles attract and when they repel.• I know some objects are magnetic and other are not.	<ul style="list-style-type: none">• <i>I know that sounds are caused by vibration.</i>• <i>I know that sound travels through a medium (solid/liquid/gas) to the ear.</i>• <i>I can explain what pitch and volume are.</i>• <i>I know how pitch and volume can be changed.</i>• <i>I know what happens to a sound as it travels away from its source.</i>



The T-RF- Science Curriculum Coverage Year 3/4 Cycle A

Vocabulary



Biology		Chemistry	Physics	
All living things and their habitats	Animals, including humans	Rocks	Forces and Magnets	Sound
Nutrition Muscles Nutrients Movement Spine Skull Movement Vertebrate/invertebrate Skeleton Ribs Bones Balanced/healthy diet Support Protection Teeth Canines Incisor Molar Rip,Tear,Chew,Grind,Cut	Classification Classification Key Environment Habitat Flowering/non-flowering Fish Amphibians Reptiles Birds Mammals Predator/prey Carnivore Herbivore Omnivore	Fossils Soils Sedimentary Stone Magna Metamorphic Porous Permeable/Impermeable Volcano Formation Pressure	Contact forces Non-contact Force Friction Surfaces Materials Direct Contact Magnetic Poles Repel Attract	Sound Vibrate/vibration Sound Source Pitch Volume Insulation Travel Medium Waves



The T-RF- Science Curriculum Coverage Year 3/4 Cycle B



Biology		Chemistry		Physics	
All living things and their habitats	Plants	States of Matter	Water Cycle	Electricity	Light
<p>NC –</p> <ul style="list-style-type: none">construct and interpret a variety of food chains, identifying producers, predators and prey	<p>NC –</p> <ul style="list-style-type: none">To 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	<p>NC –</p> <ul style="list-style-type: none">To compare and group materials together, according to whether they are solids, liquids or gases.To 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 (°C).To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	<p>NC –</p> <ul style="list-style-type: none">To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	<p>NC –</p> <ul style="list-style-type: none">To identify common appliances that run on electricity.To 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.To recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.To recognise some common conductors and insulators, and associate metals with being good conductors.	<p>NC –</p> <ul style="list-style-type: none">To recognise that they need light in order to see things and that dark is the absence of light.To notice that light is reflected from surfacesTo recognise that light from the sun can be dangerous and that there are ways to protect their eyes.recognise that shadows are formed when the light from a light source is blocked by an opaque object.To find patterns in the way that the size of shadows change.



The T-RF- Science Curriculum Coverage Year 3/4 Cycle B



Biology		Chemistry		Physics	
All living things and their habitats	Plants	States of Matter	Water Cycle	Electricity	Light
<ul style="list-style-type: none">• I can explain a food chain.• I know what a producer, predator and prey mean.• I know that warmer temperatures are melting ice and making the habitat's smaller at the poles.	<ul style="list-style-type: none">• I know the functions of: Roots, stem/trunk, leaves and flowers.• I recognise that seeds do not need light to germinate.• I know that water is absorbed by the roots and is transported through the stem.• I know that importance of flowers have in plants lifecycles.• I can explain what pollination is.• I can describe some of the ways seeds are dispersed.	<ul style="list-style-type: none">• I know temperature can change states• I know the properties of solids, liquids and gases.• I can group materials according to weather they are solids, liquids or gases.	<ul style="list-style-type: none">• I know what evaporation is.• I know what precipitation is.• I know what part condensation plays in the water cycle.• I know the freezing and boiling points of water.	<ul style="list-style-type: none">• I know common appliances run on electricity.• I can construct a simple series circuits.• I can name the basic parts of a simple circuit.• I know a switch opens and closes a circuit.• I can name at least one conductors and insulators.	<ul style="list-style-type: none">• I know dark is the absence of light• I know that light is reflected differently from surfaces depending upon their properties.• I know sunlight can be dangerous.• I know that shadows are formed when opaque objects block light.• I know that shadows change depending upon the position of the light source.



The T-RF- Science Curriculum Coverage Year 3/4 Cycle B

Vocabulary



Biology		Chemistry		Physics	
All living things and their habitats	Plants	States of Matter	Water Cycle	Electricity	Light
Mammals Predator/prey Carnivore Herbivore Omnivore Food chain Habitat	Life Cycle Soil Root Stem/Trunk Leaf/Leaves Water Transported Flower Pollination Seed Formation Seed dispersal Nutrition/nutrients Function	Materials Heated Melting point Ice/water/steam Oxygen Boiling point Melt Freeze	Water cycle Evaporate Evaporation Condense Condensation Transpiration Precipitation Solids Liquids Gases	Electricity Electrical Circuit Series Circuit Complete Cells Wires Bulbs Switches Buzzers Battery Conductors Insulators Simple Circuit	Light Dark Reflect/Reflective Opaque Transparent Translucent Light Source Shadow Solid Object

The T-RF- Science Curriculum Coverage Year 5/6 Cycle A



Biology			Chemistry	Physics	
All living things and their environment	Humans inc. other animals	Evolution and inheritance	States of Matter	Light	Electricity
<p>NC-</p> <ul style="list-style-type: none"> To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird To describe the life process of reproduction in some plants and animals 	<p>NC –</p> <ul style="list-style-type: none"> describe the changes as humans develop to old age. To identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function To describe the ways in which nutrients and water are transported within animals, including humans. 	<p>NC –</p> <ul style="list-style-type: none"> To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago' To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. To identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. 	<p>NC –</p> <ul style="list-style-type: none"> To give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. To 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. 	<p>NC –</p> <ul style="list-style-type: none"> To recognise that light appears to travel in straight lines. To 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. To 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. To use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. 	<p>NC –</p> <ul style="list-style-type: none"> To associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. To 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. To use recognised symbols when representing a simple circuit in a diagram.

The T-RF- Science Curriculum Coverage Year 5/6 Cycle A



Biology			Chemistry	Physics	
All living things and their environment	Humans inc. other animals	Evolution and inheritance	States of Matter	Light	Electricity
<ul style="list-style-type: none"> • Know the life cycle of different living things e.g. mammal, amphibian, insect and bird • Know the differences between different life cycles • Know the process of reproduction in plants • Know the process of reproduction in animals 	<ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system • Know the function of the heart, blood vessels and blood • Know the impact of diet, exercise, drugs and lifestyle on health • Know the ways in which nutrients and water are transported in animals, including humans. 	<ul style="list-style-type: none"> • Know how the Earth and living things have changed over time • Know how fossils can be used to find out about the past • Know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents) • Know how animals and plants are adapted to suit their environment • Link adaptation over time to evolution • Know about evolution and can explain what it is 	<ul style="list-style-type: none"> • Give reasons, based on evidence from comparative tests and fair tests, for the particular use of everyday materials. • To identify thermal conductors and insulators and their uses. 	<ul style="list-style-type: none"> • Know how light travels • Know and demonstrate how we see objects • Know why shadows have the same shape as the object that casts them. • I know the difference between light sources. • I know that while light is made up of all the colours of the rainbow. 	<ul style="list-style-type: none"> • Compare and give reasons for why components work and do not work in a circuit • Draw circuit diagrams using correct symbols • Know how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer



The T-RF- Science Curriculum Coverage Year 5/6 Cycle A

Vocabulary



Biology			Chemistry	Physics	
All living things and their environment	Humans inc. other animals	Evolution and inheritance	States of Matter	Light	. Electricity
Arachnid Mollusc Insect Crustacean Primary producers Secondary producer Tertiary producers Classification key Environment Climate change Sexual maturity Pollen Stamen Stigma Pollination/pollinator Germination Reproduction	<i>Smooth muscle</i> <i>Voluntary/involuntary muscle</i> <i>Cardiac muscle</i> <i>Veins</i> <i>Arteries</i> <i>Lungs</i> <i>Oxygen</i> <i>Carbon dioxide</i>	<i>Evolution</i> <i>Vary/variation</i> <i>Evolve/evolution</i> <i>Adapt/adaptation</i> <i>Inherit/inheritance</i> <i>Natural selection</i> <i>Charles Darwin</i> <i>Extinction</i>	<i>Thermal/electrical</i> <i>Conductors/insulators</i> <i>Soluble/insoluble</i> <i>Change of state</i> <i>Mixture</i> <i>Saturated</i> <i>reversible changes</i> <i>Irreversible changes</i> <i>Boiling point</i> <i>Freezing point</i> <i>Absorption</i> <i>Suitable materials</i>	<i>Natural/manmade light source</i> <i>Moon</i> <i>Sun</i> <i>Travel</i> <i>Straight lines</i> <i>White light</i> <i>Refracted light</i> <i>Rainbow</i> <i>Absorb</i> <i>Colour</i>	<i>Bright/dim</i> <i>Volt/voltage</i> <i>Series circuit</i> <i>Components</i> <i>Short circuit</i>

The T-RF- Science Curriculum Coverage Year 5/6 Cycle B



Biology

Chemistry

Physics

All living things and their habitats

Reversible and irreversible changes

Solubility- separating materials

Forces

Earth and Space

Leavers (Forces)

- NC-
- To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
 - describe the life process of reproduction in some plants and animals
 - To 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
 - To give reasons for classifying plants and animals based on specific characteristics

- NC –
- To demonstrate that dissolving, mixing and changes of state are reversible changes
 - To explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

- NC –
- To 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
 - To know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
 - To use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
 - To give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

- NC –
- To 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

- NC –
- To describe the movement of the Earth and other planets relative to the sun in the solar system.
 - To describe the movement of the moon relative to the Earth
 - To describe the sun, Earth and moon as approximately spherical bodies,
 - To use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

- NC –
- To recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.



The T-RF- Science Curriculum Coverage Year 5/6 Cycle B



Biology	Chemistry		Physics		
All living things and their habitats	Reversible and irreversible changes	Solubility- separating materials	Forces	Earth and Space	Leavers
<ul style="list-style-type: none"> I can classify animals into broad groups and give reasons. I know the reasons for classifying plants and animals in this way. I know how animals and plants are adapted to their environment.* 	<ul style="list-style-type: none"> I can describe a reversible change and what causes it. I can describe an irreversible change and what causes it. I know that a new material is formed in an irreversible change. I know which materials are thermal conductors and insulators.* 	<ul style="list-style-type: none"> Compare and group materials based on their properties (hardness, solubility, magnetism.) I know and explain how a material dissolves. I know that evaporation allows materials to be recovered and that the application of heat speed this up. I can demonstrate how some materials can be separated 	<ul style="list-style-type: none"> I can identify gravities effect and describe it. I can identify the forces acting upon a object in motion. I can identify the effect of air and water resistance. 	<ul style="list-style-type: none"> I know that the Earth and other planets move around the sun. I know and can explain the movement of the moon (not phases.) I can demonstrate how night and day are created. I know the sun, earth and moon are spherical. 	<ul style="list-style-type: none"> I can identify different types of pulleys and gears. I can use modals to demonstrate that they allow a smaller force to have a greater effect.



The T-RF- Science Curriculum Coverage Year 5/6 Cycle B

Vocabulary



Biology	Chemistry		Physics		
All living things and their habitats	Reversible and irreversible changes	Solubility- separating materials	Forces	Earth and Space	Leavers
Primary producers Secondary producer Tertiary producers Classification key Environment Climate change Primate Adaptation Energy transfer	Arachnid Mollusc Insect Crustacean Primary producers Secondary producer Tertiary producers Classification key Environment Climate change Sexual maturity Pollen Stamen Stigma Pollination/pollinator Germination Reproduction	Evolution Vary/variation Evolve/evolution Adapt/adaptation Inherit/inheritance Natural selection Charles Darwin Extinction	Thermal/electrical Conductors/insulators Soluble/insoluble Change of state Mixture Saturated reversible changes Irreversible changes Boiling point Freezing point Absorption Suitable materials	Natural/manmade light source Moon Sun Travel Straight lines White light Refracted light Rainbow Absorb Colour	Bright/dim Volt/voltage Series circuit Components Short circuit