

Science Policy

Introductory Statement:

This policy was formulated following a consultative process which took place over a period of months. It replaces our previous policy. The Principal and teachers were involved in drafting this policy.

Rationale:

This policy was devised for a number of key purposes:

- To provide clear guidelines for teachers
- To insure consistency throughout the school
- To conform with legislation
- In order to ensure that pupils are given adequate opportunities to develop skills & understanding of concepts as envisaged in the Primary School Curriculum.

Vision and Aims:

We seek to assist the children in our school in achieving their potential through Science Education as our school recognizes that Science Education is part of a balanced curriculum which aims to develop the whole spectrum of the child's intelligence including the child's quest for experimentation, deduction, emotional, creative, cultural and aesthetic development. In our school the child is encouraged to explore, discover, analyse, deduce and report on a variety of scientific material while engaging in positive scientific experiences.

Aims:

The aims of science education are;

- To develop knowledge and understanding of scientific and technological concepts through the exploration of human, natural and physical aspects of the environment
- To develop a scientific approach to problem-solving which emphasises understanding and constructive thinking
- To encourage the child to explore, develop and apply scientific ideas and concepts through designing and making activities
- To foster the child's natural curiosity, so encouraging independent enquiry and creative action
- To help the child to appreciate the contribution of science and technology to the social, economic, cultural and other dimensions of society
- To cultivate an appreciation and respect for the diversity of living and non-living things, their interdependence and interactions
- To encourage the child to behave responsibly, to protect, improve and cherish the environment and to become involved in the identification, discussion, resolution and avoidance of environmental problems and so promote sustainable development
- To enable the child to communicate ideas, present work and report findings using a variety of media

We also aim to:

- Continue our participation in the Green School Programme.
- Take part in local & national science initiatives.
- Integrate other specially designated days & weeks into our school calendar e.g. national tree week, Ocean week etc.
- Purchase additional science equipment as necessary.

Approaches and Methodologies:

It is essential no matter what our collective experience in teaching the subject, that we use a range of teaching methods and approaches when teaching Science. Lessons “should not be work card or textbook based”. Our main aim is to get the children “thinking scientifically” and not memorising facts to be regurgitated at a later stage. The approaches adopted should create a learning environment where;

- Practical activity is encouraged (Hands on discovery)
- Links with the environment are fostered
- Children have an opportunity to work together, share ideas and communicate their findings
- Children's ideas are the starting point for science activities (concept mapping)
- Children should be allowed the excitement of finding out for themselves
- Children are encouraged to pose their own questions

The use of a variety of approaches and methods will facilitate the efficient implementation of the science curriculum. The nature of the strands and strand units themselves necessitates the use of a variety of teaching methods. The approaches chosen should enable the children to work scientifically in a variety of contexts, to undertake practical activities and to tackle open-ended investigations. Different methods are outlined as follows;

Whole Class Work:

This is effective in introducing a topic and concept-mapping. It is also useful in providing background information that may be required for an activity.

Small groups:

This can be in many forms;

- Several groups working on the same activity
- Small groups rotating around different activities (circus of experiments)
- Small groups working on independent activities

Individual work:

This is where children pursue their own studies and carry out investigations that allow them to pursue their own interests and ideas.

Content of Plan

Curriculum:

Science Programme: Junior – Second Class – Skills

Skills Development	
Working scientifically	<ul style="list-style-type: none"> • Questioning • Observing • Predicting • Investigating and experimenting • Estimating and measuring • <i>Analysing-Sorting and classifying</i> • Recording and communicating
Designing and making	<ul style="list-style-type: none"> • Exploring • Planning • Making • Evaluating

Junior/Senior Infant Content

Strand Unit	Content	Curriculum	Teacher Guidelines
Myself	Body – similarities/differences Body – changes as we grow	Page 24	Page 118 121
Caring for my Locality	Observe and appreciate attributes of our locality Develop a sense of responsibility for its care Implement simple strategies for its improvement and care		
Magnetism and Electricity	Purposeful play with magnets to observe effect Use of electricity at home/school Dangers of electricity	Page 26 26	Page 38, 108, 109, 136, 138
Forces	Investigate the effects of pushing and pulling of various objects		
Properties and Characteristics of materials	Investigate and compare a variety of materials, e.g. water, metal..... Identify uses for these materials Grouping of these materials according to different criteria Observe floating and sinking of objects	Page 27	Page 124

Junior & Senior Infant Content Continued.

Strand Unit	Content	Curriculum	Teacher Guidelines
Plants and animals	Investigate living things in various habitats, e.g. trees, ponds.... Investigate parts of living things, e.g. flower, stem, leaf.... Observe growth and change of living things Explore conditions of change – need for growth etc Explore seasonal change	Page 24	Pages 26, 62, 64, 66, 68, 70, 78, 82, 84
Light	Identify and name items in relation to colour Explore various colours and group objects accordingly Explore shadow and colour in our natural environment	Page 25	Page 90
Sound	Explore sound and difference of sound, high/low etc Explore making sound – percussion.		
Heat	Investigate hot/cold through our weather/bodies Explore how to maintain heat/cold	Page 25	Page 124
Materials and Change	Observe the effects of water on objects/materials Observe the effects of heating/cooling objects/materials	Page 27	

First & Second Class Content.

Strand Unit	Content	Curriculum	Teacher Guidelines
Myself	Body – identify external parts Locate sense and link to body parts Measure body changes and identify requirements needed for growth	Page 41	Page 121
Caring for my Locality	Identify and discuss the basic elements – air, soil, water etc Introduce co-dependence, e.g. food chain Pollution – causes and prevention	Page 48	

2. Science Programme: Third – Sixth Class

We have prepared a two-year plan for the senior class levels.

Skills Development <i>Third – Sixth.</i>	
Working scientifically	<ul style="list-style-type: none"> • Questioning • Observing • Predicting • Investigating and experimenting • Estimating and measuring • Analysing • <i>Sorting and classifying</i> • <i>Recognising patterns</i> • <i>Interpreting</i> • Recording and communicating
Designing and making	<ul style="list-style-type: none"> • Exploring • Planning • Making • Evaluating

Third and Fourth Class Odd Year Plan.

Strand Unit Term	Content	Curriculum	Teacher Guidelines
<u>Autumn</u> Human Life	Body – name external and internal organs Discuss need for balanced diet Examine the breathing system, lungs, smoking Examine the skeletal system, muscles, bones, joints	Page 61	Page 119, 122
Environmental Awareness	Observe, discuss and record elements of our local environment Renewable/non-renewable resources Conservation of our environment	Page 68	
Caring for the environment	Implementing anti-pollution schemes Identify issues and responsibilities through debate/action	Page 68, 70	

Strand	Content	Curriculum	Teacher Guidelines
<u>Winter/Spring</u> Magnetism and Electricity	Push/pull effects- terms attract/repel are introduced Classification into magnetic/non-magnetic Link magnets to the compass Static electricity Uses/dangers of electricity at home/school Construction of simple circuits Identify conductors/insulators	Page 64	Page 102-103
Forces	Movement of objects – push, pull/stretch, pulley, roll... Slowing moving objects due to friction, e.g. ball on carpet Investigate gravity Levers- designing levers, see-saw Floating/sinking of objects	Page 65	Page 112, 114, 136, 138
<u>Summer</u> Properties and Characteristics of materials	Investigate properties of various materials Discuss solids, liquids, and gases Raw v. manufactured materials Grouping of materials under specific criteria, include insulators/conductor, magnetic, absorbency Discuss uses of these materials in construction	Page 66	Page 127

Third and Fourth Class Even Year Plan.

Strand Unit Term	Content	Curriculum	Teacher Guidelines
<u>Autumn</u> Plants and Animals	Investigate living things in various habitats Explore conditions of growth and how animals adapt to environments Uses of keys in the identification of species Explore food chains and life cycles	Page 62	Page 48, 62, 64, 68, 70, 73, 78, 80, 82, 85
Science and the Environment	Explore technology in the everyday context Identify the positive/negative effects of technology on our environment	page 69	
Strand Unit	Content	Curriculum	Teacher

Term			Guidelines
<p><u>Winter/Spring</u> Light</p> <p>Sound</p>	<p>Light as a form of energy, explore transparency of materials Explore natural and artificial light Observe the light spectrum Observe refraction of light Identify the importance /dangers of the sun</p> <p>Sound as a form of energy Creation of sound through vibration How sound travels through materials</p>	<p>Page 63</p> <p>Page 63</p>	<p>Page 94</p>
<p><u>Summer</u> Heat</p> <p>Materials and change</p>	<p>Use of thermometer Explore heat transfer Uses of heat in the home – energy saving.... Significance/dangers of the sun's heat</p> <p>Effects of heating/cooling on solids, liquids and gases Conductors and insulators of change Mixing and separating of materials Testing of materials under different criteria, e.g. use of water, forces</p>	<p>Page 64</p> <p>Page 66</p>	<p>Page 127</p>

Strand Unit Term	Content	Curriculum	Teacher Guidelines
<u>Autumn</u> Human Life	Body Identify structure of internal and external organs Discuss need for a balanced diet – food pyramid The breathing system effects of smoking Immune system – protecting our bodies	Page 83	Page 119, 122
Environmental Awareness	Observe, discuss and record elements of our local environment Renewable/non-renewable resources Conservation of our environment	Page 90	
Caring for the environment	Implementing anti-pollution schemes Individual/community/national and global responsibility	Page 92	
<u>Winter/Spring</u> Magnetism and Electricity	Push/pull, attract/repel, lift/hold effect of magnets Investigate making magnets – the electromagnet Construct a variety of simple circuits Uses/dangers of electricity	Page 86	Page 102,103, 104
Forces	Movement of objects – push, pull, pulley, wind, water. Effects of friction – slowing objects and generating heat Introduce gravity as a force Use of levers to lift, turn Design	Page 87	Pages 40-41 114, 116, 136, 138
<u>Summer</u> Properties and Characteristics of materials	Solids, liquids, gases, their properties Investigated and group different materials, including oxygen The decay of various materials Composition of our air – its properties Different gases in our environment and everyday uses	Page 88	Page 127

Fifth & Sixth Class Even Year Plan

Strand Unit Term	Content	Curriculum	Teacher Guidelines
<p><u>Autumn</u> Plants and Animals</p>	<p>Investigate living things in various habitats Explore conditions of growth and how animals adapt to environments Uses of keys in the identification of species Explore food chains and life cycles Explore characteristics of specific groups, e.g. mammals, birds, fish Explore conditions of growth in detail including reproduction</p>	<p>Page 84</p>	<p>Page 62, 64, 66, 68, 70, 78, 82</p>
<p>Science and the Environment</p>	<p>Explore technology in the everyday context Identify the positive/negative effects of technology on our environment Look at technology and important scientists/inventions in our world</p>	<p>Page 91</p>	
<p><u>Winter/Spring</u> Light</p>	<p>Characteristics of light – energy form, spectrum, reflection, refraction Uses of lens. Importance of sight Importance of the sun – photosynthesis Dangers of sunlight</p>	<p>Page 85</p>	<p>Page 95</p>
<p>Sound</p>	<p>Characteristics of sound – vibration, energy, travel, travel through materials Making for sound through percussion, vibration Importance of hearing</p>	<p>Page 85</p>	
<p><u>Summer</u> Heat</p>	<p>Use/explanation of terms conduction, convection, radiation Transfer of heat, sources, renewable, non-renewable heat Use of thermometer</p>	<p>Page 86</p>	<p>Page 128</p>
<p>Materials and change</p>	<p>Effects of heating/cooling on solids, liquids and gases Conductors and insulators of change Mixing, separating and dissolving of materials Testing of materials under different criteria, e.g. use of water, force Fire triangle – oxygen, fuel, heat. Heat at home</p>	<p>Page 89</p>	

Organisation

Children's Ideas:

Work on each topic will draw on experience and knowledge of the class as appropriate.

Practical Investigations:

These will be used as appropriate at each class level.

Classroom Management:

Teachers will organise the class as appropriate. The use of a variety of approaches and methods will facilitate the efficient implementation of the science curriculum. The appropriate scientific language to be used during an investigation will be identified by the class teacher and taught in context accordingly.

Children with Different Needs

The Science curriculum emphasises three starting points for the child's Scientific activities:

- the child's own experience
- the child's imagination
- the child's observations

It is policy of our school that all children in main stream classes will participate in Science activities. Science activities will be differentiated in order to meet the needs of the children in a particular class. This will be achieved by teachers varying pace, content methodologies, encouraging personal responses to ensure learning success for all. All children, with exceptional ability will be provided with opportunities of support and encouragement through class / community displays and personal development. The SNA supports particular children and groups as directed by the class teacher. Children who experience bereavement and loss, serious illness, other major personal loss, or other major personal situations are supported and consideration is given to meeting their individual needs in the most appropriate manner.

Key Methodologies:

We adapt and modify activities so that they meet the needs of all children in the class;

- Using the environment
- Active learning
- Guided and discovery learning
- Free exploration of materials
- Spiral nature of the curriculum – opportunities to return to earlier learning and to extend and enhance it
- Learning through language

Linkage and Integration

Particular attention will be given to possibilities for integration. As staff we see possibilities for integrating our work in art with the following aspects of other subject areas:

- Oral language (English / Gaeilge)
- Design and make (Science)
- Energy and forces (Science)
- Construction (Visual Arts)
- History - Renaissance, Geography, Art Galleries Museums, Maths.

Integration may also be approached through planning on a thematic basis, Water...its properties...safety...story of Water Cycle...

As a staff we will be availing of opportunities for linkage between strands when planning individual Science activities as we recognise the inter related nature of the Science curriculum. Scoil Chiarian recognises the need to develop a language so that children can talk about their work and develop a visual vocabulary for looking at and critiquing the visual arts form class to class.

Assessment and Record Keeping:

Children's progress in Science is assessed through;

- Teacher observation
- Teacher designed tasks and tests
- Work Samples
- Self-Assessment
- Questioning
- Portfolios and projects

Class / school displays are a beneficial means of communicating children's work to parents and children's portfolios are sent home termly. Teachers will report on child's progress at parent teacher meetings and in the annual report. Assessment will be used by teachers to inform their planning and the management of learning activities.

Equality of Participation and Access:

We view the Science programme as playing a key role in ensuring equality of opportunity for all children. The programme at each class level will be flexible so that the learning requirements of all children may be addressed. We provide an equal educational experience for both boys and girls as we recognise that stereotyped expectations of gender roles can inhibit children's educational achievements. Children with special needs will be included in all activities.

Organisational Planning Timetable:

Time allocated to Science in every class will be as outlined in the Introduction to the Curriculum (minimum time allocations). Some discretionary time may also be allocated periodically for Science, particularly in the context of integrated project work or celebration occasions.

Timetable:

All classes will have a minimum of one hour per week of Science. This time allocation may be broken down at the discretion of the individual teacher. We recognise that in the Junior Classes, the time allotted will be of shorter duration on a more frequent basis, while senior classes may divide the hour into longer time spans, such as two thirty-minute sessions, or three twenty - minute sessions. Teachers may also choose to block times at particular times of the year. Timetables will all record the time allocation for Science.

There is discretionary time available each week (Infants: one hour, First to Sixth Classes: two hours) that teachers can occasionally use to support the Science Curriculum. Teachers should ensure that pupils attending supplementary teaching are included for as much of the Science programme as possible.

Resources and ICT –

See Appendix 1 for a full list of resources for each strand unit.

See Appendix 2 for Environmental Audit.

In each classroom there will be a selection of age appropriate materials, books, software / Internet site access available to children. These will have a variety of stimuli and some information on the Sciences and Scientists and various Science genres including posters / pictures.

The local community, sciences living locally, local art centers and education officers, concert halls, galleries, local art competitions and national support structures will all be considered as valuable resources as support for the Visual Curriculum.

An appropriate amount of money will be requested from the parents and the Board of Management annually to fund our Visual programme. Grants from the DES allocated for the Sciences will be used specifically for this subject. Parents may be requested to make a very small contribution should we find a shortfall in finances. Contributions may also be requested from the Parents Association, and sponsorship from local businesses. Each teacher is responsible for the purchase, variety of and care of Science materials in his / her class. Appropriate resources are purchased at the beginning of the year. Resources need to be checked termly to ensure that there is enough and a variety of material available.

Health and Safety:

Teachers will be at all times mindful of Health and Safety Policy. Children will be encouraged to safe guard their own wellbeing.

Care and attention will be given to the following -

- Hidden dangers if children are moving around the classroom - organizing art class layout.
- Storage facilities.
- Careful use of materials - paint, glue, scissors etc.,
- Access to, and transport to galleries, supervision.
- Ventilation of the classrooms.
- Protective clothing and absorbent paper for dealing with spills and spillages.
- Care when mounting and arranging displays.

Individual Teachers' Planning and Reporting:

Teachers will base their yearly and short-term plans on the approaches set out in the whole school plan for Science.

Staff Development:

Teachers will be made aware of any opportunities for further professional development through participation in courses available in education centres or other venues.

Parental Involvement:

Parents with special relevant knowledge may be invited into school to speak to children.

Community Links:

The local community, science/botanists. living locally, local centers eg in connection with Burren Beo/Coole Park and education officers, museums. Aquariums/Science venture Centres local and Natural Science events i.e. Science week..., Science projects eg Fionn Project museums and national support structures will all be considered as valuable resources as support for the Science Curriculum.

Success Criteria

The success of this plan will be measured using the following criteria;

- Implementation of the Science curriculum will be evident in the teacher work
- Continuity of content and methodology will be evident in teacher's preparation
- Ongoing assessment will show that pupils are acquiring concepts through and an ability to engage with others in a manner appropriate to their age and personality

Self-Assessment

The success of this plan will be measured by the following criteria:

Implementation will be evident in teaching and learning in the classroom.

Continuity of content and methodology will be evident in teachers' planning and monthly reports.

Pupil Assessment

Ongoing evaluation should demonstrate that pupils are acquiring an understanding of the Science concepts and an increasing awareness of Science. Teacher designed tasks, tests and compiling of portfolios entry to outside Science Competitions and pupil's enjoyment of Science will reflect success in Science Curriculum.

- Feedback from Teachers / Parents / Pupils / Community.
- Inspectors suggestions / reports
- Second Level Feedback.

Implementation

- Roles and Responsibilities: Class teachers are responsible for the implementation of Science for their own classes.
- Staff - in whole school evaluation of Science in Scoil Chiarain as part of agenda at staff meetings.
- Parents / Community
- Plan coordinator / Post Holder
- B.O.M.
- Department of Education

Review

It will be necessary to review this plan on a regular basis to ensure optimum implementation of the Science Curriculum in the school. Progress made during this school year will be reviewed at the June 2022 staff meeting.

Ratification and Communication:

This plan is to be communicated to the BOM and will be ratified before the end of August 2022.

Ratification by Board of Management on

Signed

On behalf of B.O.M.

Plan will be communicated to parents by email.

Appendix 1

Useful Links

PDST

<https://pdst.ie/primary/stem/science/strands>

<https://pdst.ie/primary/stem/science/assessment>

https://www.pdst.ie/sites/default/files/scienceallstrands_0.pdf

https://www.pdst.ie/sites/default/files/scienceskills_0.pdf

<https://pdst.ie/primary/stem/science>

Resources and Equipment

Strand Unit	Box Contents
Living Things: Myself/Human Life	Mirrors – plastic. Metre sticks. Height chart. Thermometer. Measuring tape. Bathroom scales
Living Things: Plants & Animals	Flower pot. Insect cages. Small trowels. Aquarium tank. Old spoons. Sheets of Perspex or plastic. Watering can. Plastic tubing. Hand lenses. Nature viewers. Microscope. Binoculars. Magnispectors. Bird table.
Energy & Forces: Magnetism	Magnets – including bar, button, horseshoe. Iron filings. Compasses. A range of magnetic materials. Needles. A selection of metals.
Energy & Forces: Electricity	Screw in light bulb holders. Bulbs and batteries. Crocodile clips. Wires. Electric buzzers. Electric bells. Electric motor. Wire stripping pliers. Steel wool. Screwdrivers.
Energy & Forces: Light	Torches. Curved mirrors and Plane mirrors. Glass blocks and triangular prism. Shiny objects that will act as mirrors; spoons, biscuit tin lid, sheet metal. Transparent, translucent and opaque materials. Colour filters. Candles. Old spectacle lenses. Projector
Energy & Forces: Heat	Thermometers. Candles.
Energy & Forces: Sound	Tuning forks. Rubber bands – different sizes and thickness. Guitar strings
Energy & Forces: Forces	Wheeled toys. Oil, grease, polish, wax. Inclined plane. Sandpaper. Springs. Mechanisms: tongs, pliers, nutcrackers, toys, old clock etc. Weights. Marbles. Balls. Construction sets such as Meccano, wheels, pulley, axle rod, gears. Timers. Stop clock and watches. Balloons. Plastic syringes. Pulleys.

Strand Unit	Box Contents
<p>Materials</p>	<p>Funnels. Polystyrene sheets, blocks, balls and beads. Sieves, plastic, various meshes. Samples of fabrics and fibres. Food colouring. Samples of soap and detergent. Dyes. Materials from the kitchen or bathroom such as sugar, salt, soda, chalk, oil, soda water, lime water, tea, coffee, bath salts, flour. Samples of different metals. Pebbles, stones, bricks and rocks. Samples of different woods and wood products. Samples of different papers, blotting paper, tissue paper, paper towels, waxed paper, greaseproof paper, newsprint. Corks.</p>
<p>Designing & Making</p>	<p>Construction kits such as Lego Technic, K'Nex, Fischer Technik, Meccano, Master Builder. Mechanisms – egg beater, bicycle pump, jack, hinges, toys etc. Hammer and nails. Nuts and bolts. Hacksaw and spare blades. Wood glue. Clamp. Sandpaper. Screwdriver and screws. Craft Knife. Hand Drill. Ruler and Scissors. Clips. Spanners. Needle. Rotary Cutter. G Clamp.</p>
<p>Consumable Materials</p>	<p>Plasticine. Plaster of Paris. Clay. A range of fabrics and fibres. Fasteners – bulldog clips, paper clips, hair clips, clothes pegs. Soft woods. Foil. Metals. Acetate. Plastic. Rubber. Dowels of various lengths and thickness. Thin wire. String and threads. Adhesives.</p>

Science Work-cards

**Let's Discover 25 Science Experiments (Work-cards 3rd. Class & 6th. Class)
STEM Projects Box (Box 2, 4, 5 & 6)**

Appendix 2

Environmental Audit

(A) Using Local Habitats	(B) Habitats in School Environment
(C) Plants in the environment	(D) Animal Observation in immediate environment
(E) Food Chains	(F) Seasonal Changes
(G) Building Materials	(H) Impact on Human Environment
(I) Caring for the Environment	

(A) Using Local Habitats

Type	Name of Area	Within Walking Distance Yes / No
Woodland:	Coole Park, Gort	No
Historic Building:	Yeats Tower	No
	Dunguaire Castle	No
	Lynchs House	Yes
	Mortello Tower	Yes
Seashore:	Traught Beach	Yes
	Aughnish Island	Yes

Hedgerow: Roadside hedges offer some opportunity for study on a regular basis.

Grassland: The school has an area of grassland that is used to plant cultivated flowers and trees as well as wild flowers, which offers the opportunity for study. This is a wildlife friendly area to observe undisturbed plant and animal life.

Soil: School ground, also opportunities arise when on field trips etc.

Wall: Stone walls both cut and natural stone surrounding the school area, offering habitat for plant and animal life.

Leaf Litter: School grounds for hedge and surrounding trees.

(B) Habitats in School Environment

Type of Tree	On School Grounds Yes / No
Beech	Yes
Ash	Yes
Sycamore	Yes
Whitethorn	Yes
Holly	Yes
Lilac	Yes
Hazel	Yes
Blackthorn	Yes

(C) Plants in the Environment

Plants which allow pupils to study a variety of the following:

Stems

Tree Trunks: which are thick vertical stems. Various trunks will display different colours, thickness, length, texture and branch formation.

Dandelion: white sap

Daisy: tough short stem-daisy

Daffodils: Long straight green, Sap flowing out easily. Soft and pliable.

Cats Ear: long green tough

Leaves

Pinnate: Ash

Lobed: Sycamore, clover

Serrated: Dandelion, oak cats' ear

Parallel: veined, Ivy

Variiegated: Various ornamental shrubs

Roots

Tap root: Dandelion

Spreading root: Nettle, Ivy

Various tree roots

Bark

Smooth grey: Ash

Smooth brown: Sycamore

Thorny: Hawthorn, Blackthorn

Rough: Oak

Flowers & Fruit

Tree Flowers: Sycamore, Blackthorn, Whitethorn, Cherry Blossom, Ash

Shrubs: Fushia, Heathers Lilac

Weeds: Daisy, Buttercup, Dandelion, Clover

Fruit: Sycamore Wings, Ash keys, Sloes, Haws, Blackberries

(D) Observing Animals

Animals are easily observed in the school grounds / environment.

Insects: Worm, slug, snail, centipede, millipede, ground beetle, woodlouse

Spiders and webs in shrubbery in Autumn

Aphids on plants and leaves in Spring

Greenfly and ladybirds

Butterflies, bumblebees

Birds: Robins, Cuckoo, Blackbirds, Swallows, Starlings, Swifts, Finch's, Seagulls, Heron, Cormorants, Egrets, Crows, Rooks and Pheasants.

Animals: Sheep, Cows, lambs and calves in Spring, Foxes, Rabbits

Ways in which animals can be observed by pupils

Type	Ways of Moving	Number of Legs	Home	Feeding	Winged / Not Winged	Use of Colour / Camouflage
Spider	Web	8	Web	Flies on web	No	Dark – to hide
Ladybird	Flying	6	Plants	Greenfly	Yes	Bright warning colour
Snails	Crawling	None	Shell	Leaves	No	Shell to protect
Birds	Flying	2	Nests	Bugs	Yes	
Butterflies	Flying	4	Walls	Nectar	Yes	Patterns on wings similar to eyes

(E) Food Chains

Simple Food Chain

Soil	Worm	Robin
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Plant	Greenfly	Ladybird
Plant	Slug	Bird
Dead Material	Fly	Bird

(F) Seasonal Changes

These are most evident in the following:

Trees	Insect Activity	Weather	Grass Growth	Flowers
Farming Activities				

(G) Building Materials

Type	Example
Brick	Homes in the area
Corrugated Iron	Farm Buildings in the area
Steel Girders	Homes in the area
Roof Tiles	Homes in the area
Stone	School Walls and Homes in the area
Slate	School and Homes in the area
Concrete Blocks	School and Homes in the area
Wood	Homes in the area
uPVC	School and Homes in the area
Thatch	Homes in the area
Glass	School and Homes in the area

(H) Impact of Human Activity on the Environment

Some of the negative impacts of human activities are easily observed by the pupils in the school.

- Large fields where hedgerows have been cleared away, this has led to a lack of shelter for animals and birds.
- Spraying of land
- Harsh cutting of roadside hedges at the wrong time of the year.

The following are some examples of how the pupils can improve and care for the school environment:

- Continued use of the bird feeder to feed the birds.
- Use of the Composting Bin.
- Litter Control.
- Recycle Materials.
- Be more aware of the consumption of electricity and water in the school, by turning off computers, whiteboards, lights, taps etc.

- Do not put glass and aluminium products in the bin, Dispose of them in the correct recycling bins.

(I) Caring for the Environment

The Following are some points that should be stressed to children before any outdoor investigation, or habitat visit is undertaken:

- Search carefully and cause as little disturbance as possible to the surroundings.
- Handle plants and animals with care.
- Replace stones and logs that are turned over.
- Observe, draw and record if possible rather than handling.
- Return animals to habitats as soon as possible.
- Animals and living plants should only be removed from their environment when an investigation cannot be carried out there.
- Children may devise a conservation code for themselves before a field trip.
- If samples are necessary then only a limited number will be collected.
- Litter will be brought home or back to school for proper disposal.
- Motto is when visiting a habitat, we should leave it exactly as we found it.