SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	EYFS – Understanding the World	Year 1	Year 2
Observing closely	Can they talk about what they see, using a wide vocabulary?	Can They Talk About What They See, Touch, Smell, Hear Or Taste? Can They Use Simple Equipment To Help Them Make Observations? Can They Find Out By Watching, Listening, Tasting, Smelling And Touching?	Can They Compare Several Things? Can They Use See, Touch, Smell, Hear Or Taste To Help Them Answer Questions? Can They Use Some Scientific Words To Describe What They Have Seen And Measured? Can They Suggest Ways Of Finding Out Through Listening, Hearing, Smelling, Touching And Tasting?

	EYFS	Year 1	Year 2
Identifying and Classifying	Explore collections of materials with similar and/or different properties. 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.	Can They Answer Some Scientific Questions? Can They Explain What They Have Found Out? Can They Identify And Classify Things They Observe? Can They Think Of Some Questions To Ask? © Can They Explain What They Have Found Out Using Scientific Vocabulary? © Can They Give A Simple Reason For Their Answers? © Can They Talk About Similarities And Differences?	Can They Find Simple Patterns (Or Associations)? Can They Identify Animals And Plants By A Specific Criteria, Eg, Lay Eggs Or Not; Have Feathers Or Not? Can They Organise Things Into Groups? © Can They Suggest More Than One Way Of Grouping Animals And Plants And Explain Their Reasons?

	EYFS	Year 1	Year 2
Recording findings	Talk about what they see, using a wide vocabulary. Talk about the differences between materials and changes they notice. Explore the natural world around them, making observations and drawing pictures of animals and plants.	Can They Put Some Information In A Chart Or Table? Can They Record Their Findings Using Standard Units? Can They Show Their Work Using Pictures, Labels And Captions? © Can They Make Accurate Measurements? © Can They Use ICT To Show Their Working?	Can They Measure Using <Simple Equipment>? Can They Use <Text, Diagrams, Pictures, Charts, Tables> To Record Their Observations? © Can They Use Information From Books And Online Information To Find Things Out?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 1	Year 2
Planning and performing tests	Can They Perform A Simple Test? Can They Tell Other People About What They Have Done?	Can They Carry Out A Simple Fair Test? Can They Explain Why It Might Not Be Fair To Compare Two Things? Can They Say Whether Things Happened As They Expected And If Not Why Not?Can They Suggest How To Find Things Out? Can They Use Prompts To Find Things Out? © Can They Say Whether Things Happened As They Expected?

	Year 3	Year 4	Year 5	Year 6
Planning	Can They Explain Why They Need To Collect Information To Answer A Question? Can They Make And Record A Prediction Before Testing? Can They Plan A Fair Test And Explain Why It Was Fair? Can They Set Up A Simple Fair Test To Make Comparisons? Can They Use Different Ideas And Suggest How To Find Something Out? © Can They Record And Present What They Have Found Using Scientific Language, Drawings, Labelled Diagrams, Bar Charts And Tables?	Can They Decide Which Information Needs To Be Collected And Decide Which Is The Best Way For Collecting It? Can They Plan A Fair Test And Isolate Variables, Explaining Why It Was Fair And Which Variables Have Been Isolated? Can They Set Up A Simple Fair Test To Make Comparisons? Can They Suggest Improvements And Predictions? Can They Use Their Findings To Draw A Simple Conclusion? © Can They Plan And Carry Out An Investigation By Controlling Variables Fairly And Accurately? © Can They Use Test Results To Make Further Predictions And Set Up Further Comparative Tests?	Can They Explain, In Simple Terms, A Scientific Idea And What Evidence Supports It? Can They Explore Different Ways To Test An Idea, Choose The Best Way And Give Reasons? Can They Make A Prediction With Reasons? Can They Plan And Carry Out A Scientific Enquiry To Answer Questions, Including Recognising And Controlling Variables Where Necessary? Can They Present A Report Of Their Findings Through Writing, Display And Presentation? Can They Use Information To Help Make A Prediction? Can They Use Test Results To Make Predictions To Set Up Comparative And Fair Tests? Can They Vary One Factor Whilst Keeping The Others The Same In An Experiment?	Can They Explain, In Simple Terms, A Scientific Idea And What Evidence Supports It? Can They Explore Different Ways To Test An Idea, Choose The Best Way, And Give Reasons? Can They Make A Prediction With Reasons? Can They Plan And Carry Out An Investigation By Controlling Variables Fairly And Accurately? Can They Present A Report Of Their Findings Through Writing, Display And Presentation? Can They Use Information To Help Make A Prediction? Can They Use Test Results To Make Further Predictions And Set Up Further Comparative Tests? Can They Vary One Factor Whilst Keeping The Others The Same In An Experiment? Can They Explain Why They Do This? © Can They Choose The Best Way To Answer A Question? © Can They Explain How A Scientist Has Used Their Scientific Understanding Plus Good Ideas To Have A Breakthrough?

				© Can They Identify The Key Factors When Planning A Fair Test? © Can They Make A Prediction Which Links With Other Scientific Knowledge? © Can They Use Information From Different Sources To Answer A Question And Plan An Investigation?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 3	Year 4	Year 5	Year 6
Obtaining and presenting evidence	Can They Describe What They Have Found Using Scientific Language? Can They Make Accurate Measurements Using Standard Units? Can They Measure Using Different Equipment And Units Of Measure? Can They Record Their Observations In Different Ways? <Labelled Diagrams, Charts Etc> © Can They Explain Their Findings In Different Ways (Display, Presentation, Writing)? © Can They Suggest Improvements And Predictions For Further Tests? © Can They Use Their Findings To Draw A Simple Conclusion?	Can They Explain Their Findings In Different Ways (Display, Presentation, Writing)? Can They Make Accurate Measurements Using Standard Units? Can They Take Measurements Using Different Equipment And Units Of Measure And Record What They Have Found In A Range Of Ways? © Can They Record More Complex Data And Results Using Scientific Diagrams, Classification Keys, Tables, Bar Charts, Line Graphs And Models?	Can They Decide Which Units Of Measurement They Need To Use? Can They Explain Why A Measurement Needs To Be Repeated? Can They Record More Complex Data And Results Using Scientific Diagrams, Labels, Classification Keys, Tables, Scatter Graphs, Bar And Line Graphs? Can They Take Measurements Using A Range Of Scientific Equipment With Increasing Accuracy And Precision? Can They Take Repeat Readings When Appropriate?	Can They Decide Which Units Of Measurement They Need To Use? Can They Explain Why A Measurement Needs To Be Repeated? Can They Explain Why They Have Chosen Specific Equipment? (Incl ICT Based Equipment) Can They Record Their Measurements In Different Ways? (Incl Bar Charts, Tables And Line Graphs) Can They Take Measurements Using A Range Of Scientific Equipment With Increasing Accuracy And Precision? © Can They Collect Information In Different Ways? © Can They Explain Qualitative And Quantitative Data? © Can They Make Precise Measurements? © Can They Plan In Advance Which Equipment They Will Need And Use It Well? © Can They Record Their Measurements And Observations Systematically?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 3	Year 4	Year 5	Year 6
Considering evidence and evaluating	Can They Explain What They Have Found Out And Use Their Measurements To Say Whether It Helps To Answer Their Question? Can They Use A Range Of Equipment (Including A Datalogger) In A Simple Test? © Can They Suggest How To Improve Their Work If They Did It Again?	Can They Evaluate What They Have Found Using Scientific Language, Drawings, Labelled Diagrams, Bar Charts And Tables? Can They Find Any Patterns In Their Evidence Or Measurements? Can They Identify Differences, Similarities Or Changes Related To Simple Scientific Ideas Or Processes? Can They Make A Prediction Based On Something They Have Found Out? Can They Use Straightforward Scientific Evidence To Answer Questions Or To Support Their Findings? © Can They Report Findings From Investigations Through Written Explanations And Conclusions? © Can They Use A Graph Or Diagram To Answer Scientific Questions?	Can They Find A Pattern From Their Data And Explain What It Shows? Can They Link What They Have Found Out To Other Science? Can They Report And Present Findings From Enquiries Through Written Explanations And Conclusions? Can They Suggest How To Improve Their Work And Say Why They Think This? Can They Use A Graph To Answer Scientific Questions?	Can They Find A Pattern From Their Data And Explain What It Shows? Can They Identify Scientific Evidence That Has Been Used To Support To Refute Ideas Or Arguments? Can They Link What They Have Found Out To Other Science? Can They Record More Complex Data And Results Using Scientific Diagrams, Classification Keys, Tables, Bar Charts, Line Graphs And Models? Can They Report And Present Findings From Enquiries, Including Conclusions, Causal Relationships And Explanations Of And Degree Of Trust In Results, In Oral And Written Forms Such As Displays And Other Presentations? Can They Report Findings From Investigations Through Written Explanations And Conclusions? Can They Suggest How To Improve Their Work And Say Why They Think This? Can They Use A Graph To Answer Scientific Questions? © Can They Draw Conclusions From Their Work? © Can They Explain How They Could Improve Their Way Of Working? © Can They Link Their Conclusions To Other Scientific Knowledge?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals including humans	Understand the key features of the life cycle of an animal. Explore the natural world around them, making observations and drawing pictures of animals.	Can They Classify Animals By What They Eat? (Carnivore, Herbivore, Omnivore) Can They Compare The Bodies Of Different Animals? Can They Describe How An Animal Is Suited To Its Environment? Can They Identify And Name A Variety Of Common Animals That Are Carnivores, Herbivores And Omnivores? Can They Identify And Name A Variety Of Common Animals? (Birds, Fish, Amphibians, Reptiles, Mammals, Invertebrates) Can They Name A Range Of Domestic Animals? Can They Name The Parts Of An Animal's Body? Can They Point Out Some Of The Differences Between Different Animals? Can They Sort Photographs Of Living Things And Non-Living Things?	Can They Decide Whether Something Is Living, Dead Or Non-Living? Can They Describe The Life Cycle Of Some Living Things? (E.G. Egg, Chick, Chicken) Can They Describe What Animals Need To Survive? Can They Explain That Animals Grow And Reproduce? Can They Explain The Basic Needs Of Animals, Including Humans For Survival? (Water, Food, Air) Can They Explain The Differences Between Living And Non-Living Things? Can They Explain Why Animals Have Offspring Which Grow Into Adults? © Can They Explain That Animals Reproduce In Different Ways?	Can They Describe And Explain The Muscular System Of A Human? Can They Describe And Explain The Skeletal System Of A Human? Can They Describe How Nutrients, Water And Oxygen Are Transported Within Animals And Humans? Can They Explain The Importance Of A Nutritionally Balanced Diet? © Can They Explain How The Muscular And Skeletal Systems Work Together To Create Movement? © Can They Explain How Certain Living Things Depend On One Another To Survive? © Can They Explain How People, Weather And The Environment Can Affect Living Things?	Can They Describe The Simple Functions Of The Basic Parts Of The Digestive System In Humans? Can They Identify And Name The Basic Parts Of The Digestive System In Humans? Can They Identify The Simple Function Of Different Types Of Teeth In Humans? Can They Compare The Teeth Of Herbivores And Carnivores? Can They Construct And Interpret A Variety Of Food Chains, Identifying Producers, Predators And Prey? Can They Explain What A Simple Food Chain Shows? © Can They Classify Living Things And Non-Living Things By A Number Of Characteristics That They Have Thought Of?	Can They Describe The Changes As Humans Develop To Old Age? © Can They Describe The Changes Experienced In Puberty? © Can They Draw A Timeline To Indicate Stages In The Growth And Development Of Humans? © Can They Create A Timeline To Indicate Stages Of Growth In Certain Animals, Such As Frogs And Butterflies?	Can They Describe The Ways In Which Nutrients And Water And Transported Within Animals, Including Humans? Can They Identify And Name The Main Parts Of The Human Circulatory System, And Describe The Functions Of The Heart, Blood Vessels And Blood? Can They Identify How Animals And Plants Are Adapted To Suit Their Environment In Different Ways And That Adaptation May Lead To Evolution? Can They Recognise The Impact Of Diet, Exercise, Drugs And Lifestyle On The Way Their Bodies Function? © Can They Compare The Organ Systems Of Humans To Other Animals? © Can They Explore The Work Of Medical Pioneers, For Example, William Harvey And Galen And Recognise How

		© Can They Begin To Classify Animals According To A Number Of Given Criteria? © Can They Name A Range Of Wild Animals? © Can They Point Out Differences Between Living Things And Non-Living Things? © Can They Say Why Certain Animals Have Certain Characteristics? Can They Draw & Label Basic Parts Of The Human Body?# Can They Identify The Main Parts Of The Human Body And Link Them To Their Senses? Can They Name The Parts Of The Human Body That They Can See? © Can They Name Some Parts Of The Human Body That Cannot Be Seen?					Much We Have Learnt About Our Bodies? © Can They Locate The Major Human Organs? © Can They Make A Diagram Of The Human Body And Explain How Different Parts Work And Depend On One Another? © Can They Make A Diagram That Outlines The Main Parts Of A Body? © Can They Name The Major Organs In The Human Body?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science
The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	EYFS	Year 1	Year 2	Year 3
Plants	Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant. Begin to understand the need to respect and care for the natural environment and all living things. Explore the natural world around them, making observations and drawing pictures of plants.	Can They Describe The Parts Of A Plant (Roots, Stem, Leaves, Flowers)? Can They Identify And Name A Range Of Common Plants And Trees? Can They Name The Petals, Stem, Leaf, Bulb, Flower, Seed, Stem And Root Of A Plant? Can They Name The Trunk, Branches And Root Of A Tree? Can They Recognise Deciduous And Evergreen Trees? © Can They Name The Main Parts Of A Flowering Plant? Can They Describe The Parts Of A Plant (Roots, Stem, Leaves, Flowers)? Can They Identify And Name A Range Of Common Plants And Trees? Can They Name The Petals, Stem, Leaf, Bulb, Flower, Seed, Stem And Root Of A Plant? Can They Name The Trunk, Branches And Root Of A Tree? Can They Recognise Deciduous And Evergreen Trees? © Can They Name The Main Parts Of A Flowering Plant?	Can They Describe What Plants Need To Survive? Can They Find Out & Describe How Plants Need Water, Light And A Suitable Temperature To Grow And Stay Healthy? Can They Observe And Describe How Seeds And Bulbs Grow Into Mature Plants? © Can They Explain That Plants Grow And Reproduce In Different Ways?	Can They Explain How They Vary From Plant To Plant? Can They Explore The Part That Flowers Play In The Life Cycle Of Flowering Plants, Including Pollination, Seed Formation And Seed Dispersal? Can They Explore The Requirement Of Plants For Life And Growth (Air, Light, Water, Nutrients From Soil, And Room To Grow)? Can They Identify And Describe The Functions Of Different Parts Of Flowering Plants? (Roots, Stem/Trunk, Leaves And Flowers)? Can They Investigate The Way In Which Water Is Transported Within Plants? © Can They Classify A Range Of Common Plants According To Many Criteria (Environment Found, Size, Climate Required, Etc.)?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Materials	Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Talk about the differences between materials and changes they notice.	Can They Describe Materials Using Their Senses, Using Specific Scientific Words? Can They Describe Materials Using Their Senses? Can They Distinguish Between An Object And The Material From Which It Is Made? Can They Explain What Material Objects Are Made From? Can They Explain Why A Material Might Be Useful For A Specific Job? Can They Name Some Different Everyday Materials? E.G. Wood, Plastic, Metal, Water And Rock Can They Sort Materials Into Groups By A Given Criteria? © Can They Describe Things That Are Similar And Different Between Materials?	Can They Explain How Solid Shapes Can Be Changed By Squashing, Bending, Twisting And Stretching? Can They Explain How Things Move On Different Surfaces? Can They Explore How The Shapes Of Solid Objects Can Be Changed? (Squashing, Bending, Twisting, Stretching) Can They Find Out About People Who Developed Useful New Materials? (John Dunlop, Charles Macintosh, John McAdam) Can They Identify And Compare The Suitability Of A Variety Of Everyday Materials, Including Wood, Metal, Plastic, Glass, Brick, Rock, Paper, Cardboard For Particular Uses? © Can They Explain How Materials Are Changed By Bending, Twisting And Stretching?			Can They Compare And Group Together Everyday Materials On The Basis Of Their Properties, Including Hardness, Solubility, Transparency, Conductivity (Electrical And Thermal), And Response To Magnets? Can They Demonstrate That Dissolving, Mixing And Changes Of State Are Reversible Changes? Can They Describe Changes Using Scientific Words? (Evaporation, Condensation) Can They Describe How To Recover A Substance From A Solution? Can They Explain How Some Materials Dissolve In Liquid To Form A Solution? Can They Explain That Some Changes Result In The Formation Of New Materials, And That This Kid Of Change Is	

			© Can They Explain How Materials Are Changed By Heating And Cooling? © Can They Explain What Happens To Certain Materials When They Are Cooled, E.G. Jelly, Heated Chocolate? © Can They Explain What Happens To Certain Materials When They Are Heated, E.G. Bread, Ice, Chocolate? © Can They Say Which Materials Are Natural And Which Are Man Made? © Can They Tell Which Materials Cannot Be Changed Back After Being Heated, Cooled, Bent, Stretched Or Twisted? Can They Compare And Group Together A Variety Of Materials Based On Their Simple Physical Properties? Can They Describe The Simple Physical Properties Of A Variety Of Everyday Materials? © Can They Describe The Properties Of Different Materials Using Words Like, Transparent Or		Not Usually Reversible, Including Changes Associated With Burning And The Action Of Acid On Bicarbonate Of Soda? Can They Give Reasons, Based On Evidence For Comparative And Fair Tests For The Particular Uses Of Everyday Materials, Including Metals Wood And Plastic? Can They Use The Terms 'Reversible' And 'Irreversible'? © Can They Describe Methods For Separating Mixtures? (Filtration, Distillation) © Can They Explore Changes That Are Difficult To Reverse, E.G. Burning, Rusting And Reactions Such As Vinegar With Bicarbonate Of Soda? © Can They Explore The Work Of Chemists Who Created New Materials, E.G. Spencer Silver (Glue On Sticky Notes) Or Ruth Benerito (Wrinkle Free Cotton)?	

			Opaque, Flexible, Etc.? © Can They Sort Materials Into Groups And Say Why They Have Sorted Them In That Way?		© Can They Use Their Knowledge Of Materials To Suggest Ways To Classify? (Solids, Liquids, Gases)	

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	EYFS	Year 1
Seasonal changes	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	Can They Name The Four Seasons In Order? Can They Observe And Describe How Day Length Varies? Can They Observe And Describe Weather Associated With The Seasons? Can They Observe Changes Across The Four Seasons? © Can They Observe And Talk About Changes In The Weather? © Can They Observe Features In The Environment And Explain That These Are Related To A Specific Season? © Can They Talk About Weather Variation In Different Parts Of The World?

	Year 3	Year 5
Forces	Can They Classify Which Materials Are Attracted To Magnets And Which Are Not? Can They Compare And Group Together A Variety Of Everyday Materials On The Basis Of Whether They Are Attracted To A Magnet? Can They Compare How Things Move On Different Surfaces? Can They Describe Magnets Have Having Two Poles (N & S)? Can They Identify Some Magnetic Materials? Can They Notice That Some Forces Need Contact Between Two Objects, But Magnetic Forces Can Act At A Distance? Can They Observe How Some Magnets Attract Or Repel Each Other? Can They Observe That Magnetic Forces Can Be Transmitted Without Direct Contact? Can They Predict Whether Two Magnets Will Attract Or Repel Each Other Depending On Which Poles Are Facing? © Can They Investigate The Strengths Of Different Magnets And Find Fair Ways To Compare Them?	Can They Explain That Unsupported Objects Fall Towards The Earth Because Of The Force Of Gravity Acting Between The Earth And The Falling Object? Can They Identify The Effects Of Air Resistance, Water Resistance And Friction That Act Between Moving Surfaces? Can They Recognise That Some Mechanisms, Including Levers, Pulleys And Gears, Allow A Smaller Force To Have A Greater Effect? © Can They Describe And Explain How Motion Is Affected By Forces? (Including Gravitational Attractions, Magnetic Attraction And Friction) © Can They Design Very Effective Parachutes? © Can They Explore How Scientists, Such As Galileo Galilei And Isaac Newton Helped To Develop The Theory Of Gravitation? © Can They Work Out How Water Can Cause Resistance To Floating Objects?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Living things and their habitats	Recognise some environments that are different to the one in which they live. 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.		Can They Describe A Range Of Different Habitats? Can They Describe How A Habitat Provides For The Basic Needs Of Things Living There? Can They Describe How Plants And Animals Are Suited To Their Habitat? Can They Describe Some Of The Life Processes Common To Plants And Animals, Including Humans? Can They Match Certain Living Things To The Habitats They Are Found In? © Can They Describe What Animals Need To Survive And Link This To Their Habitats? © Can They Describe What Plants Need To Survive And Link It To Where They Are Found? © Can They Name Some Characteristics Of An Animal That Help It To Live In A Particular Habitat?		Can They Compare The Classification Of Common Plants And Animals To Living Things Found In Other Places? (Under The Sea, Prehistoric) Can They Explore And Use A Classification Key To Group, Identify And Name A Variety Of Living Things? (Plants, Vertebrates, Invertebrates) Can They Recognise That Living Things Can Be Grouped In A Variety Of Ways? Do They Recognise That Environments Can Change And This Can Sometimes Pose A Danger To Living Things? © Can They Explain How Certain Living Things Depend On One Another To Survive? © Can They Explain How People, Weather And The Environment Can Affect Living Things? © Can They Explore The Work Of Pioneers In	Can They Describe The Differences In The Life Cycles Of A Mammal, An Amphibians, An Insects And A Bird? Can They Describe The Life Cycles Of Common Plants? Can They Explore The Work Of Well Know Naturalists And Animal Behaviourists? (David Attenborough And Jane Goodall) © Can They Compare The Life Cycles Of Plants And Animals In Their Local Environment With The Life Cycles Of Those Around The World, E.G. Rainforests? © Can They Observe Their Local Environment And Draw Conclusions About Life-Cycles, E.G. Plants In The Vegetable Garden Or Flower Border?	Can They Describe How Living Things Are Classified Into Broad Groups According To Common Observable Characteristics And Based On Similarities And Differences Including Microorganisms, Plants And Animals? Can They Give Reasons For Classifying Plants And Animals Based On Specific Characteristics? © Can They Explain Why Classification Is Important? © Can They Find Out About The Significance Of The Work Of Scientists Such As Carl Linnaeus, A Pioneer Of Classification? © Can They Group Animals Into Vertebrates And Invertebrates? © Can They Readily Group Animals Into Reptiles, Fish, Amphibians, Birds And Mammals?

					Classification? (E.G. Carl Linnaeus) © Can They Give Reasons For How They Have Classified Animals And Plants, Using Their Characteristics And How They Are Suited To Their Environment? © Can They Name And Group A Variety Of Living Things Based On Feeding Patterns? (Producer, Consumer, Predator, Prey, Herbivore, Carnivore, Omnivore)		© Can They Sub Divide Their Original Groupings And Explain Their Divisions?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 3
Rocks	Can They Compare And Group Together Different Rocks On The Basis Of Their Appearance And Simple Physical Properties? Can They Describe And Explain How Different Rocks Can Be Useful To Us? Can They Describe And Explain The Differences Between Sedimentary And Igneous Rocks, Considering The Way They Are Formed? Can They Describe In Simple Terms How Fossils Are Formed When Things That Have Lived Are Trapped Within Rock? Can They Recognise That Soils Are Made From Rocks And Organic Matter? © Can They Begin To Relate The Properties Of Rocks With Their Uses? © Can They Classify Igneous And Sedimentary Rocks?

	Year 4	Year 6
Electricity	Can They Associate A Switch Opening With Whether Or Not A Lamp Lights In A Simple Series Circuit? Can They Associate Metals With Being Good Conductors? Can They Construct A Simple Series Electric Circuit? Can They Identify And Name The Basic Part In A Series Circuit, Including Cells, Wires, Bulbs, Switches And Buzzers? Can They Identify Common Appliances That Run On Electricity? Can They 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? Can They Investigate How Different Materials Can Affect The Pitch And Volume Of Sounds? Can They Recognise Some Common Conductors And Insulators? Can They Recognise That A Switch Opens And Closes A Circuit? © Can They Explain How A Bulb Might Get Lighter? © Can They Explain Why Cautions Are Necessary For Working Safely With Electricity? © Can They Recognise If All Metals Are Conductors Of Electricity? © Can They Work Out Which Metals Can Be Used To Connect Across A Gap In A Circuit?	Can They Compare And Give Reasons For Variations In How Components Function, Including The Brightness Of Bulbs, The Loudness Of Buzzers, The On/Off Position Of Switches? Can They Identify And Name The Basic Parts Of A Simple Electric Series Circuit? (Cells, Wires, Bulbs, Switches, Buzzers) Can They Use Recognised Symbols When Representing A Simple Circuit In A Diagram? © Can They Explain How To Make Changes In A Circuit? © Can They Explain The Danger Of Short Circuits? © Can They Explain The Effect Of Changing The Voltage Of A battery? © Can They Explain The Impact Of Changes In A Circuit? © Can They Explain What A Fuse Is? © Can They Make Their Own Traffic Light System Or Something Similar?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 6
Evolution and Inheritance	Can They Explain The Process Of Evolution And Describe The Evidence For This? Can They Give Reasons Why Offspring Are Not Identical To Each Other Or To Their Parents? Can They Recognise That Living Things Have Changed Over Time And That Fossils Provide Information About Living Things That Inhabited The Earth Millions Of Years Ago? Can They Recognise That Living Things Produce Offspring Of The Same Kind, But Normally Offspring Vary And Are Not Identical To Their Parents? © Can They Analyse The Advantages And Disadvantages Of Specific Adaptations, Such As Being On Two Rather Than Four Feet? © Can They Begin To Understand What Is Meant By DNA? © Can They Explain How Some Living Things Adapt To Survive In Extreme Conditions? © Can They Talk About The Work Of Charles Darwin, Mary Anning And Alfred Wallace?

	Year 3	**Year 6**
Light	Can They Find Patterns In The Way That The Size Of Shadows Change? Can They Notice That Light Is Reflected From Surfaces? Can They Recognise That Dark Is The Absence Of Light? Can They Recognise That Light From The Sun Can Be Dangerous And That There Are Ways To Protect Their Eyes? Can They Recognise That Shadows Are Formed When The Light From A Light Source Is Blocked By A Solid Object? Can They Recognise That They Need Light In Order To See Things? © Can They Explain The Difference Between Transparent, Translucent And Opaque? © Can They Explain Why Lights Need To Be Bright Or Dimmer According To Need? © Can They Explain Why Their Shadow Changes When The Light Source Is Moved Closer Or Further From The Object? © Can They Make A Bulb Go On And off? © Can They Say What Happens To The Electricity When More Batteries Are Added?	**Can They Explain That We See Things Because Light Travels From Light Sources To Our Eyes Or From Light Sources To Object And Then To Our Eyes?** Can They Recognise That Light Appears To Travel In Straight Lines? Can They 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? Can They Use The Idea That Light Travels In Straight Lines To Explain Why Shadows Have The Same Shape As The Objects That Cast Them? © Can They Explain How Different Colours Of Light Can Be Created? © Can They Explore A Range Of Phenomena, Including Rainbows, Colours On Soap Bubbles, Objects Looking Bent In Water And Coloured Filters. © Can They Use And Explain How Simple Optical Instruments Work? (Periscope, Telescope, Binoculars, Mirror, Magnifying Glass, Newton's First Reflecting Telescope)

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science
The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 4
States of matter	Can They Associate The Rate Of Evaporation With Temperature? Can They Compare And Group Materials Together, According To Whether They Are Solids, Liquids Or Gases? Can They Explain What Happens To Materials When They Are Heated Or Cooled? Can They Identify The Part That Evaporation And Condensation Has In The Water Cycle? Can They Measure Or Research The Temperature At Which Different Materials Change State In Degrees Celsius? Can They Use Measurements To Explain Changes To The State Of Water? Can They Use Their Knowledge Of Solids, Liquids And Gases To Decide How Mixtures Might Be Separated, Including Through Filtering, Sieving, Evaporating? © Can They Explain What Happens Over Time To Materials Such As Puddles On The Playground Or Washing Hanging On A Line? © Can They Group And Classify A Variety Of Materials According To The Impact Of Temperature On Them? © Can They Relate Temperature To Change Of State Of Materials?

	Year 4
Sound	Can They Associate Some Sounds With Something Vibrating? Can They Compare Sources Of Sound And Explain How The Sounds Differ? Can They Describe A Range Of Sounds And Explain How They Are Made? Can They Explain How Pitch And Volume Can Be Changed In A Variety Of Ways? Can They Explain How To Change A Sound (Louder/Softer)? Can They Explain How You Could Change The Pitch Of A Sound? Can They Find Patterns Between The Pitch Of A Sound And Features Of The Object That Produce It? Can They Find Patterns Between The Volume Of The Sound And The Strength Of The Vibrations That Produced It? Can They Recognise How Vibrations From Sound Travel Through A Medium To A Ear? Can They Recognise That Sounds Get Fainter As The Distance From The Sound Source Increases? © Can They Explain Why Sound Gets Fainter Or Louder According To The Distance? © Can They Work Out Which Materials Give The Best Insulation For Sound?

SILVERHILL PRIMARY SCHOOL SCIENCE OVERVIEW

Intent Statement for Science

The intent of Silverhill Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

	Year 5
Earth and space	Can They Describe And Explain The Movement Of The Moon Relative To The Earth? Can They Describe The Sun, Earth And Moon As Approximately Spherical Bodies? Can They Explain How Seasons And The Associated Weather Is Created? Can They Identify And Explain The Movement Of The Earth And Other Plants Relative To The Sun In The Solar System? Can They Use The Idea Of The Earth's Rotation To Explain Day And Night And The Apparent Movement Of The Sun Across The Sky? © Can They Begin To Understand How Older Civilizations Used The Sun To Create Astronomical Clocks, E.G. Stonehenge? © Can They Compare The Time Of Day At Different Places On The Earth? © Can They Create Shadow Clocks? © Can They Explore The Work Of Some Scientists? (Ptolemy, Alhazen, Copernicus)

	Year 6
Evolution and inheritance	Can They Explain The Process Of Evolution And Describe The Evidence For This? Can They Give Reasons Why Offspring Are Not Identical To Each Other Or To Their Parents? Can They Recognise That Living Things Have Changed Over Time And That Fossils Provide Information About Living Things That Inhabited The Earth Millions Of Years Ago? Can They Recognise That Living Things Produce Offspring Of The Same Kind, But Normally Offspring Vary And Are Not Identical To Their Parents? © Can They Analyse The Advantages And Disadvantages Of Specific Adaptations, Such As Being On Two Rather Than Four Feet? © Can They Begin To Understand What Is Meant By DNA? © Can They Explain How Some Living Things Adapt To Survive In Extreme Conditions? © Can They Talk About The Work Of Charles Darwin, Mary Anning And Alfred Wallace?