



Scheme of Work		
Years: 1&2	Title: Roots and Shoots	Weeks: 5 weeks
<p>Rationale: This unit builds directly on pupils' early learning behaviours, classroom routines and prior experiences by using the theme of Roots and Shoots as a meaningful vehicle for knowledge acquisition, communication and personal development. The unit is deliberately structured so that pupils encounter new vocabulary, practise early disciplinary thinking and apply knowledge through purposeful outcomes.</p> <p>Pupils learn to:</p> <ul style="list-style-type: none"> engage with explicit teaching and guided practice use new vocabulary in spoken and practical contexts ask and answer simple questions apply knowledge through creative, practical and written outcomes develop confidence, independence and positive participation make links between lead subjects and wider application subjects <p>This unit demonstrates a broad and balanced integrated curriculum in which subject integrity is preserved. Each lead subject has clear core knowledge, disciplinary knowledge and secure end points, while application subjects give pupils additional opportunities to revisit and apply what they know.</p> <p>For SEMH learners, the unit is delivered through predictable routines, clear modelling, scaffolded tasks, visual supports, vocabulary rehearsal, emotional check-ins and regulation-aware teaching. Adaptation supports access to ambitious learning rather than reducing the curriculum expectation.</p>		
<p>Adaptive Teaching</p> <p>Examples of adaptation within this unit include:</p> <ul style="list-style-type: none"> visual timetables and now/next supports vocabulary pre-teaching and rehearsal sentence stems and modelling chunked instructions and reduced cognitive load oral rehearsal before recording ideas alternative recording methods (drawing, practical outcomes, verbal responses) sensory and movement opportunities where needed emotional check-ins and regulation support <p>Challenge and Greater Depth Opportunities</p> <p>Pupils demonstrating secure understanding may be challenged through:</p> <ul style="list-style-type: none"> increasingly independent application of learning deeper questioning and higher-order thinking interpretation and evaluation of evidence more sophisticated use of disciplinary and subject-specific vocabulary extended reasoning and justification of ideas leadership, collaboration and peer-support opportunities greater complexity within written, practical and presentation outcomes opportunities to make connections across subjects and contexts compare plants and explain similarities and differences using observations 		



- identify patterns and explain findings using scientific vocabulary
- justify conclusions using evidence from practical investigations

<p>Hook: Pupils are introduced to Roots and Shoots through an immersive classroom experience using objects, images, story, discussion, sensory exploration or practical challenge. The hook is designed to build curiosity, reduce anxiety around new learning and give pupils an immediate reason to communicate, question and explore.</p> <p>Opening challenge: Can you become a Year 1 expert and create something that helps other people understand what you have learned?</p>	<p>Writing Outcomes: By the end of the unit pupils will:</p> <ul style="list-style-type: none"> • orally rehearse ideas before writing • write labels and captions linked to plants and living things • sequence and write simple sentences about plant growth • create simple descriptions of plants and natural environments • compose a short explanation linked to how plants grow • edit and improve work with adult guidance
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<p>Outcomes: By the end of the unit pupils produce:</p> <ul style="list-style-type: none"> • a class display of flowers, trees and plant investigations or a “Gardener’s World” presentation/tour • a collection of spoken, practical and written learning evidence • vocabulary-rich classroom display work • a shared outcome presented to an audience 	<p>Success Criteria: By the end of the unit most pupils will be able to:</p> <ul style="list-style-type: none"> • use topic vocabulary within discussion and learning activities • identify and describe parts of plants and living things • compose and record simple sentences with support • apply taught phonics within reading and writing activities • participate in oral storytelling and discussion • communicate learning confidently through a final outcome
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<p>Secure End Point</p> <p>Pupils can:</p> <ul style="list-style-type: none"> • explain what plants need in order to grow and survive • identify similarities and differences between plants and living things • use observations and evidence to explain changes in growth and the natural world • use scientific vocabulary to communicate understanding accurately • communicate findings confidently through spoken, practical and written outcomes 	
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<p>Common Misconceptions</p> <ul style="list-style-type: none"> • plants only need water to survive • all plants look the same • plants grow immediately • all living things live in the same environment • plants are not living things 	<p>Sticky Knowledge (Non-negotiable Learning)</p> <p>By the end of the unit pupils will know:</p> <ul style="list-style-type: none"> • living things have features that can be identified and described • plants need certain things to grow and survive • living things change over time
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	<ul style="list-style-type: none"> • observations help us answer questions • scientific vocabulary helps explain ideas
<p>Retrieval Opportunities</p> <ul style="list-style-type: none"> • Recall seasonal observations from earlier learning • Revisit scientific vocabulary: plant, growth, living <p>Week 1 - prior knowledge discussion Week 2 - recall key scientific vocabulary Week 3 - identify and sequence stages of plant growth Week 4 - compare living things and environments Week 5 - explain learning using topic vocabulary</p>	
<p>Prior Learning</p> <p>Pupils revisit and apply learning from Unit 5: Round About Winkfield</p> <p>Reading</p> <ul style="list-style-type: none"> • retrieve information from texts • identify similarities and differences between places • discuss features and characteristics of environments <p>Writing</p> <ul style="list-style-type: none"> • create simple information texts • describe and compare places • explain observations and findings <p>Grammar and Punctuation</p> <ul style="list-style-type: none"> • use <i>because</i> to explain ideas • organise ideas into linked sentences • extend descriptions using increasingly precise vocabulary <p>Spoken Language / Oracy</p> <ul style="list-style-type: none"> • ask and answer questions • explain observations using topic vocabulary • communicate findings clearly 	
<p>Spelling Pupils apply:</p> <ul style="list-style-type: none"> • phonemes and graphemes taught through Read Write Inc. • common exception words appropriate to Year 1 	<p>Grammar and Punctuation Focus Pupils develop:</p> <ul style="list-style-type: none"> • capital letters and full stops (retrieval) • adjectives for describing plants and environments • conjunctions including and, because, so and when • expanded noun phrases



<ul style="list-style-type: none"> • topic vocabulary linked to plants and living things • oral segmenting and blending strategies • spelling through repeated reading and writing opportunities 	<ul style="list-style-type: none"> • oral sentence rehearsal before recording ideas • commas in simple lists
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<p>Computing Integration</p> <p>Pupils learn to:</p> <ul style="list-style-type: none"> • collect and record observations using digital tools • organise simple information <p>Computing NC coverage:</p> <ul style="list-style-type: none"> • data handling • digital recording

<p>Independence</p> <p>Pupils move from:</p> <ul style="list-style-type: none"> • adult-led exploration and heavily modelled responses • supported emotional regulation during new or unfamiliar learning • using vocabulary mainly through repetition and guided talk • needing support to organise materials, ideas and responses <p>To:</p> <ul style="list-style-type: none"> • increasingly independent participation in discussion and practical learning • using topic vocabulary with greater confidence • selecting resources and applying learning with reduced prompting • sharing outcomes with pride and beginning to reflect on progress <p>By the end of the unit pupils can:</p> <ul style="list-style-type: none"> • recall key vocabulary and simple sticky knowledge • explain what they have made, found out or learned • participate in a purposeful final outcome • show increased confidence, communication and independence 	<p>Thinking</p> <p>This unit develops:</p> <ul style="list-style-type: none"> • communication and listening • observation and noticing • comparison and classification • creative thinking • early reasoning and explanation • self-reflection and emotional awareness <p>Cognitive progression</p> <p>Week 1: Knowledge Launch - Pupils focus on introducing the topic, establishing prior knowledge, teaching key vocabulary and engaging pupils through practical exploration.</p> <p>Week 2: Knowledge Building - Pupils focus on developing core concepts through explicit teaching, modelling, guided practice and structured discussion.</p> <p>Week 3: Application - Pupils focus on applying new knowledge through practical, creative, spoken and written outcomes.</p> <p>Week 4: Deepening - Pupils focus on deepening understanding through comparison, questioning, collaboration and independent practice.</p> <p>Week 5: Outcome Preparation - Pupils focus on preparing final products through rehearsal, refinement, editing, making or presentation.</p>
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<p>Building on Previous Learning</p>



Pupils may draw upon:

- previous observations of plants and seasonal change
- experiences of outdoor environments
- vocabulary linked to living things and growth
- practical experiences and discussion

3 Lead Subjects National Curriculum Links

Subject 1: Science

Core Knowledge

- Living things have basic needs and can be observed and classified.
- Plants and animals have features that can be named and described.
- Simple scientific questions can be answered through observation and testing.

Disciplinary Knowledge

- Ask simple questions.
- Observe closely using simple equipment.
- Identify, classify and describe findings.
- Use observations as evidence to suggest answers.

Scientific enquiry opportunities

- observing changes over time
- identifying and classifying
- using simple observations to answer questions
- gathering and recording information

Working scientifically opportunities

- observing over time
- identifying and classifying
- asking simple questions
- gathering and recording data
- using observations to suggest answers

Progression

question → predict → investigate → observe → analyse → conclude → justify → evaluate

Secure End Point

Pupils can observe, describe and compare living things and simple materials using scientific vocabulary.

Subject 2: English

Core Knowledge

- Sounds and letters combine to create words that carry meaning.
- Simple sentences communicate complete ideas.
- Stories, poems and information texts can be listened to, discussed and retold.



- Oral rehearsal supports writing and helps pupils organise ideas before recording them.

Disciplinary Knowledge

- Apply phonic knowledge to decode and spell simple words.
- Compose sentences orally before writing.
- Sequence simple ideas to create short narratives or explanations.
- Use talk to clarify thinking, ask questions and share responses.

Secure End Point

Pupils can use phonics, spoken language and simple sentence writing to communicate ideas clearly.

Area	Coverage within this unit
Reading	scientific reading; retrieval; observation; sequencing; explanation; simple inference; shared reading of anchor texts
Writing	oral rehearsal; sentence composition; explanation writing; observations and findings; scientific recording; shared writing
Spelling	application of phonics taught through Read Write Inc.; common exception words; topic vocabulary
Grammar and Punctuation	capital letters and full stops; adjectives for description; conjunctions including <i>and</i> , <i>because</i> , <i>so</i> and <i>when</i> ; expanded noun phrases
Spoken Language / Oracy	discussion; questioning; storytelling; performance; turn-taking

Subject 3: DT

Core Knowledge

- Products are designed for a purpose and a user.
- Materials and structures can be joined, shaped and strengthened.
- Designs can be tested, improved and evaluated.

Disciplinary Knowledge

- Generate ideas through talk, drawing and modelling.
- Select tools and materials safely with adult support.
- Make, test and improve simple products.

Secure End Point

Pupils can design, make and evaluate a simple purposeful product.

Application Subjects

Geography

- Places have human and physical features.
- Weather, seasons and environments can be observed and described.
- Use simple maps, photographs and observations.

ICT

- Use simple digital tools with support.
- Recognise that technology can help create, record or share learning.
- Practise safe and respectful use of devices.



PDL

- Reinforce emotional literacy, belonging and positive participation
- Practise cooperation, turn-taking and reflection
- Connect learning to personal confidence and relationships

English Progression and National Curriculum Links

This mixed Year 1/2 curriculum follows a spiral progression model. Knowledge and skills are revisited and developed with increasing complexity. Year 1 pupils secure foundational knowledge while Year 2 pupils deepen learning through greater independence, vocabulary and challenge.

Reading

- retrieve and organise information from texts
- identify patterns, relationships and change over time
- discuss changes and observations

Writing

- write simple explanations
- explain processes and observations
- communicate findings clearly

Grammar and Punctuation

- use conjunctions including:
 - because
 - so
 - when
- organise ideas into linked sentences

Spoken Language / Oracy

- ask questions and discuss findings
- explain ideas using topic vocabulary
- communicate observations clearly

Mixed-age Challenge (Year 2 depth)

Reading

- explain patterns and changes over time
- make simple inferences from scientific observations and texts

Writing

- write three or more linked sentences independently
- include explanation and scientific detail

Grammar

- apply expanded noun phrases independently
- use conjunctions including *and*, *because*, *so* and *when*

Curriculum Progression and National Curriculum Links

Science

Year 1



- identify plants and living things
- observe changes

Year 2 extension

- explain simple processes and relationships
- use observations as evidence

Disciplinary progression

- identify → observe → explain

Future learning

Pupils will use these ideas in Unit 7 and Unit 10 when discussing environments and change.

Application Subject Progression and National Curriculum Links

Art

Year 1

- observe and draw plants

Year 2 extension

- add detail and pattern

Disciplinary progression

- observe → represent → refine

DT

Year 1

- explore materials
- investigate how structures support plant growth
- design and create simple planters or growing structures

Year 2 extension

- explain choices and improve outcomes
- evaluate effectiveness

Disciplinary progression

- explore → select → evaluate

Cross-curricular links



Subject	Application
English	explanation writing, vocabulary development, sentence composition
Science	observation, classification and investigation
DT	designing and creating plant-related products/models
Geography	observing environments and seasonal change
ICT	recording and presenting learning
PDL	emotional literacy, confidence and reflection

National Curriculum Coverage Audit

Subject	Coverage within this unit
Science	identifying plants and observing change
English	explanation writing and vocabulary
Art	observational drawing
Spoken Language	questioning and communicating findings

Anchor Texts:

- The Tiny Seed
- Planting a Rainbow
- The Growing Story

Supporting texts/recommended reads

- simple non-fiction texts about plants and habitats
- plant life cycle books
- nature poetry
- visual information texts about living things

Reading Focus:

- scientific reading and observation
- sequencing
- vocabulary linked to plants and living things
- retrieval and simple inference
- identifying change over time
- explanation

Disciplinary Reading Opportunities

Pupils engage in discussion, retrieval, vocabulary exploration, prediction, sequencing and inference activities linked directly to the wider curriculum topic.

Genre	Coverage
Information	plants and living things
Narrative	stories linked to nature
Observation texts	growth records and simple explanations
Visual texts	diagrams and labelled images

Reading Spine Unit: Roots and Shoots (KS1 Cycle 1)

Reading focus areas:

- scientific reading and observation
- sequencing and explanation
- retrieval and simple inference
- vocabulary linked to plants and living things
- identifying change over time

Fluency approaches:



- echo reading
- oral storytelling
- repeated reading
- performance reading

Retrieval focus:

- recalling plant features and vocabulary
- sequencing stages of growth
- identifying repeated scientific language

Future Learning (English)

Pupils are preparing for Unit 7: Spring to Life, where they will move from explaining processes towards making increasingly independent observations and communicating ideas.

Reading

- retrieve information and identify key details
- discuss changes and patterns

Writing

- communicate observations independently
- explain findings with increasing detail

Grammar and Punctuation

- use increasingly precise vocabulary
- apply conjunctions with greater independence

Spoken Language / Oracy

- present ideas confidently
- discuss learning using topic vocabulary

Vocabulary Development

Key vocabulary is revisited through oral rehearsal, discussion, retrieval practice and repeated shared reading experiences.

Tiered Vocabulary:

Tier 1: plant, leaf, flower, seed, stem

Tier 2: grow, change, observe, compare

Tier 3: roots, germinate, habitat, classify

Oracy & Fluency

Pupils develop fluency, communication and confidence through:

- echo reading to model expression and language patterns

SEMH Reading Approach

Texts are selected to provide emotional safety, opportunities for reflection, strong relational themes and meaningful discussion to support regulation, belonging and confidence.



- repeated reading to develop fluency and familiarity with texts
- oral storytelling and retelling of key events and ideas
- partner discussion and structured talk opportunities
- vocabulary rehearsal through sentence stems and discussion
- opportunities to perform, present and communicate learning to others
- explanation of observations and scientific findings

Visits and Visitors:

- Topic-linked visitor, workshop or adult expert where appropriate.
- Use of local environment, school grounds or community links.
- Practical enrichment experience to deepen vocabulary, curiosity and real-world connection.

Home Learning:

- Family discussion prompt linked to the topic vocabulary.
- Simple creative or practical activity to reinforce retrieval.
- Optional object, photograph, drawing or spoken contribution to bring back into class.
- Short reading, talk or observation task to support confidence and home-school connection.

Home Reading Opportunities

Families are encouraged to revisit key texts together, practise repeated reading and discuss emotions, vocabulary and themes.

Assessment opportunities:

Assessment information is used to identify barriers, inform adaptive teaching and ensure pupils receive timely support and challenge.

Area	Assessment opportunities
Vocabulary	Observation of accurate use of topic vocabulary during discussion, practical learning and final outcomes
Sticky Knowledge	Retrieval discussions, questioning and recall of key non-negotiable learning
Reading	Shared reading, questioning, retrieval, sequencing and discussion linked to anchor texts
Writing	Review of labels, captions, sentences and final written outcomes
Spoken Language / Oracy	Observation of discussion, storytelling, explanation and presentation opportunities
Practical Application	Observation of practical tasks, creative outcomes and application of knowledge
Independence	Observation of participation, confidence, regulation and increasing independence
Science	Identifying plants and explaining observations
Final Outcome	Evaluation of pupils' ability to communicate and apply learning within the final outcome

Week	Assessment focus	Evidence
Week 1	prior knowledge and vocabulary	discussion and observation
Week 2	use of new vocabulary	oral responses
Week 3	sentence composition	written work
Week 4	scientific observation and explanation	practical and written outcomes
Week 5	final outcome and communication	presentation, discussion and completed work



Assessment Checkpoints

Teachers monitor whether pupils can:

Knowledge

- identify parts of plants and explain their functions
- recall key vocabulary linked to plants and growth
- explain what living things need to survive

Disciplinary Thinking

- ask questions and make observations about living things
- identify similarities and differences between plants
- use observations and evidence to explain ideas

Application

- communicate findings through spoken, practical and written outcomes
- explain changes using scientific vocabulary
- apply learning independently within the final outcome

Leaders Monitor Impact Through

- pupil voice discussions linked to key learning and experiences
- work scrutiny of written, practical and creative outcomes
- observation of vocabulary used during discussion and learning activities
- retrieval opportunities and recall of sticky knowledge
- review of final outcomes and presentations
- reading discussions linked to anchor texts and reading experiences
- observation of communication, confidence and participation
- monitoring of independence, engagement and regulation needs
- assessment information and teacher observation
- observation of scientific discussion and explanation of findings

Links to Whole-School Policies

This unit should be delivered in line with:

- Curriculum Policy
- Teaching and Learning Policy
- Reading Policy / Reading Spine
- Behaviour and Relationships Policy
- SEND Policy
- Assessment Policy
- Equality and Accessibility Policy
- PSHE Policy
- Safeguarding Policy





Appendix 1: Storyybrook Implementation Notes

Adults say

Retrieval

- “What do you already remember?”
- “Can you tell me something from last lesson?”

Vocabulary

- “Can you use that word in a sentence?”
- “What does that word mean?”

Reasoning

- “What evidence supports your thinking?”
- “What makes you think that?”

Reflection

- “Has your thinking changed?”

Adults do

- regulate and prepare for learning
- explicitly model new learning
- pre-teach vocabulary
- use visuals and scaffolds
- chunk instructions
- provide oral rehearsal opportunities
- revisit prior learning through retrieval
- gradually remove support to build independence

Adults look for

Knowledge

- recall of sticky knowledge
- accurate vocabulary use
- application of prior learning

SEMH

- engagement
- regulation
- confidence
- participation

Independence

- reduced adult support
- ownership of learning
- increasing resilience