RISING STARS
ASSESSMENT

Progression Frameworks

FOR

SCIENCE

YEAR 1

Developed in Association with CORNWALL LEARNING

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ASSESSMENT

Progression Frameworks

Introduction

The Progression Framework for science is divided into two parts: *Progression in concepts and Working Scientifically*:

- *Progression in concepts* is based on the statements relating to key ideas in science. It is split into Biology, Chemistry and Physics; within each of these a number of 'big ideas' have been identified and used to show how later statements progress from earlier ones. See below for more information about the big ideas.
- *Working Scientifically* is based on the main skill areas which are broadly viewed as processes (e.g. planning investigations, reporting findings). Each of these is then subdivided into individual skills. As the Programme of Study statements are by Key Stage rather than by year, these have been taken as relating to the second year of each Key Stage and statements have been developed for the previous year that represent progress towards that.

See the separate document 'About the Progression Framework for science' for more detailed information.

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Rising Stars Progression Framework for science, Year 1

Domain: Biology

'Big idea'	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
1) Living things can be classified according to observable features	There is no content for this Big Idea in Year 1.			
2) Habitats provide living things with what they need	There is no content for this Big Idea in Year 1.			
3) Living things exhibit variation and adaptation and these may lead to evolution.	There is no content for this Big Idea in Year 1.			
4a) Life exists in a variety of forms and goes through cycles – Plants	1.4a.1 Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Identify and name a limited range of plants.	Identify a range of local plants.	Identify and notice similarities between various local plants.
	1.4a.2 Identify and describe the basic structure of a variety of common flowering plants, including trees	Identify and describe the basic structure of a common flowering plant.	Name parts of a range of familiar plants.	Identify and notice similarities in the structure of various local plants.
	1.4a.3 Explore and compare the differences between things that are living, dead, and things that have never been alive LINK 2.2.1	Sort items into 'once living' and 'never lived'.	Compare and contrast a collection of items, sorting into categories: 'living', 'dead' and 'things that have never been alive'.	Research further examples to add to the categories: 'living', 'dead' and 'things that have never been alive'.

Rising Stars Progression Framework for science, Year 1

Domain: Biology

'Big idea'	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
4b) Life exists in a variety of forms and goes through cycles – Animals	1.4b.1 Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Identify and name a limited number of common animals.	Name a variety of common animals.	Identify common features of the main groups of vertebrates.
	1.4b.2 Identify and name a variety of common animals that are carnivores, herbivores and omnivores	Recognise the difference between carnivores, herbivores and omnivores.	Identify and group a range of familiar animals.	Suggest whether an unfamiliar animal might be a carnivore, herbivore or omnivore.
5) The human body has a number of systems, each with its own function	1.5.1 Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)	Identify key features of one or two common animals.	Identify key features of a range of common animals.	Compare key features of familiar and unfamiliar animals.
	1.5.2 Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	Describe each of the human senses.	Relate each of the human senses to organs.	Suggest how the senses are used in an activity such as eating.

Rising Stars Progression Framework for science, Year 1

Domain: Chemistry

'Big idea'	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
1) Different rocks have different properties and the formation of soil & fossils can be explained	There is no content for this Big Idea in Year 1.			
2) Materials have physical properties which can be investigated and compared	1.2.1 Distinguish between an object and the material from which it is made LINK 2.3.1	Identify the material from which an object has been made.	Correctly identify both object and material.	Compare the same object made from different materials in terms of its effectiveness.
	1.2.2 Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock	Identify and name a limited range of materials.	Identify and name a range of materials.	Identify typical uses of a range of materials.
	1.2.3 Describe the simple physical properties of a variety of everyday materials	Recognise that a material has properties.	Describe a range of properties of a variety of materials.	Compare the physical properties of different everyday materials.
	1.2.4 Compare and group together a variety of everyday materials on the basis of their simple physical properties	Compare and contrast two everyday materials.	Classify a variety of materials into groups based on physical properties.	Use simple physical properties to suggest classification of materials.
3) The physical properties of materials determine their uses	There is no content for this Big Idea in Year 1.			
4) Materials can exist in different states and that these states can sometimes be changed	There is no content for this Big Idea in Year 1.			

Rising Stars Progression Framework for science, Year 1

Domain: Physics

'Big idea'	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
1) There are contact and non-contact forces; these affect the motion of objects	There is no content for this Big Idea in Year 1.			
2) Day, night, month, seasonal change & year are caused by the position and movement of the Earth	1.2.1 Observe changes across the four seasons LINK 3.3.5	Recognise that there are seasonal changes.	Describe seasonal changes.	Recognise changes within seasons as well as between seasons.
	1.2.2 Observe and describe weather associated with the seasons and how day length varies	Recognise that day length alters in different seasons.	Relate weather patterns and day length to seasons.	Make and test predictions relating to changing day length and weather patterns.
3) Light & sound can be reflected & absorbed and enable us to see & hear	There is no content for this Big Idea in Year 1.			
4) Electricity can make circuits work and can be controlled to perform useful functions	There is no content for this Big Idea in Year 1.			

Rising Stars Progression Framework for science, Year 1

Domain: Working scientifically

Process	Sub-process	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
1) Planning Investigations	a) Pupils can ask questions	1.1.a.1 Ask simple questions when prompted (+)	Pupil can understand that questions can be answered by testing.	Pupil can, with prompting, ask simple questions that can be tested, e.g. about plants growing in their habitat.	Pupil can ask simple questions that can be tested.
	b) Pupils can plan an enquiry	1.1.b.1 Suggest ways of answering a question (+)	Pupil can, with prompting, offer way of gathering evidence to answer a question.	Pupil can offer ways of gathering evidence to answer a question, e.g. by deciding on the best material to use for a particular application.	Pupil can suggest different ways of answering question.
	c) Pupils can identify and manage variables	There is no content for this sub-process in Year 1.			
2) Conducting experiments	a) Pupils can use equipment to take measurements	1.2.a.1 Make relevant observations (+)	Pupil can examine objects, when prompted.	Pupil can examine objects to note key features, e.g. observe growth of plants they have planted.	Pupil can examine carefully, e.g. using a hand lens.
		1.1.a.2 Conduct simple tests, with support (+)	Pupil can recognise a simple scientific test.	Pupil can, with support, conduct simple tests, e.g. comparing the properties of different materials.	Pupil can conduct simple tests.
	b) Pupils explore how to improve the quality of data	There is no content for this sub-process in Year 1.			
	c) Pupils understand the role of repeat readings	There is no content for this sub-process in Year 1.			

Numbering system: Year.Process.Sub-process.Statement
Key for Progression statements: (+) new statements; (^) split Programme of Study statement

Rising Stars Progression Framework for science, Year 1

Domain: Working scientifically

Process	Sub-process	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
3) Recording evidence	a) Pupils record work with diagrams and label them	1.3.a.1 With prompting, suggest how findings could be recorded (+)	Pupil can recognise the purpose of an experiment.	Pupil can, with prompting, identify what might usefully be recorded, e.g. drawing structures of plants or recording changing day length.	Pupil can, with assistance, draw and label diagrams.
	b) Pupils can display data using labelled diagrams, keys, tables and bar charts	There is no content for this sub-process in Year 1.			
	c) Pupils can display data using line graphs	There is no content for this sub-process in Year 1.			
4) Reporting findings	a) Pupils process findings to develop conclusions and identify causal relationships	1.4.a.1 Recognise findings (+)	Pupil can, with prompting, identify key findings from an enquiry.	Pupil can identify key findings from an enquiry, e.g. noting how plants have changed over time.	Pupil can identify and group key outcomes from an enquiry.
	b) Pupils use displays and presentations to report on findings	There is no content for this sub-process in Year 1.			
	c) Pupils explain confidence in findings	There is no content for this sub-process in Year 1.			

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Rising Stars Progression Framework for science, Year 1

Domain: Working scientifically

Process	Sub-process	Progression statement	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
5) Conclusions and predictions	a) Pupils can analyse data	1.5.a.1 Gather and record data (+)	Pupil can collect data, when prompted.	Pupil can collect data, e.g. comparing and contrasting familiar plants.	Pupil can collect data relevant to the answering of questions.
	b) Pupils can draw conclusions	1.5.b.1 Use observations to suggest answers to questions (+)	Pupil can. with prompting, suggest answers to enquiry questions using data.	Pupil can suggest answers to enquiry questions using data, e.g. describe how to group plants.	Pupil can answer enquiry questions using data and ideas.
	c) Pupils can develop investigation further	There is no content for this sub-process in Year 1.			

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Credits

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