Science Assessment Grid : My Body : Year 1

PlanBee

My Body

Group: | Year: | Term:

	Science												
Lesson 1	Can children identify various body parts?												
	Can children name various body parts?												
	Can children label various body parts?												
Lesson 2	Can children name various body parts?												
	Can children identify where various body parts are?												
	Can children describe which body parts are used for different activities?												
Lesson 3	Do children know what the five senses are?												
	Do children know that eyes are used for seeing things?												
	Can children use their eyes to look carefully at pictures and objects?												
Lesson 4	Can children name the five senses?												
	Do children know that our whole bodies can use the sense of touch?												
	Can children describe how a variety objects feel using appropriate vocabulary?												
Lesson 5	Do children know what the five senses are?												
	Do children know that the nose is used for the sense of smell?												
	Can children identify use their noses to identify smells?												
Lesson 6	Do children know that we use our mouths to taste things?												
	Can children use appropriate vocabulary to describe different flavours?												
	Can children express preferences about foods they like and dislike?												
Lesson 7	Can children name the five senses?												
	Can children identify which part of the body each sense uses?												
	Can children listen carefully to sounds to identify them?												

Science Assessment Grid : Everyday Materials : Year 1

Everyday Materials

Group: | Year: | Term:

	Science												
Lesson 1	Do children know what a material is?												
	Can children identify a variety of common materials?												
	Do children know where some materials come from?												
Lesson 2	Can children identify a variety of common materials?												
	Can children distinguish between an object and the material from which it is made?												
	Can children identify which material a variety of common objects are made from?												
Lesson 3	Can children use a variety of appropriate words todescribe what various materials are like?												
	Can children match materials to various properties?												
	Can children group objects and materials according to their properties?												
Lesson 4	Can children identify and describe a variety of materials?												
	Can children suggest why a material has been chosen for a particular purpose?												
	Can children identify materials that are inappropriate for certain uses and offer alternatives?												
Lesson 5	Can children make suggestions for how to test which materials are waterproof and which aren't?												
	Can children test a variety of materials to see which are waterproof and which aren't?												
	Can children draw conclusions from their experiment?												
Lesson 6	Can children identify a variety of everyday materials and describe their properties?												
	Can children distinguish an object from the material from which it is made?												
	Can children identify materials that are suitable for a particular purpose?												

Science Assessment Grid : Identifying Plants : Year 1

PlanBee

Identifying Plants

Group: | Year: | Term:

	Science												
Lesson 1	Can the children identify plants?												
	Can the children describe the features of different plants?												
	Can the children identify similarities and differences between plants?												
Lesson 2	Can the children name garden plants?												
	Can the children describe the features of different garden plants?												
	Can the children identify similarities and differences between plants?												
Lesson 3	Can the children name wild plants?												
	Can the children describe the features of different wild plants?												
	Can the children identify similarities and differences between plants?												
Lesson 4	Can the children name some trees?												
	Can the children describe the features of different trees?												
	Can the children use the terms 'evergreen' and 'deciduous'?												
Lesson 5	Can the children name the main parts of a plant?												
	Do the children know parts of the plant have different functions?												
	Can the children identify similarities and differences between the parts of different plants?												
Lesson 6	Do children know that plants grow?												
	Can children name the main parts of a plant?												
	Can children describe and make observations about how plants change?												

Science Assessment Grid : Identifying Animals : Year 1

PlanBee

Identifying Animals

Group: | Year: | Term:

	Science												
Lesson 1	Can the children identify various pets?												
	Can the children name various pets?												
	Can the children describe various pets?												
Lesson 2	Can the children identify various mammals?												
	Can the children name various mammals?												
	Can the children compare various mammals?												
Lesson 3	Can the children identify and name various birds?												
	Can the children identify and name various reptiles?												
	Can the children compare reptiles and birds?												
Lesson 4	Can the children identify and name various fish?												
	Can the children identify and name various amphibians?												
	Can the children compare fish and amphibians?												
Lesson 5	Do the children understand different animals eat different things?												
	Can the children classify animals by what they eat?												
	Can the children use the terms carnivore, herbivore and omnivore?												
Lesson 6	Can the children identify what an animal needs?												
	Can the children explain why it is important to take care of an animal?												
	Do the children understand different animals need different things?												
Lesson 7	Can the children identify and name a variety of animals?												
	Can the children record information in a table or a graph?												
	Can the children answer questions about their data?												

Science Assessment Grid : Seasonal Changes : Year 1

PlanBee

Seasonal Changes

Group: Year: Term:

	Science
Lesson 1	Can the children name the seasons?
	Do children know that weather changes for each season?
	Do children know that weather affects human activity?
Lesson 2	Can the children identify the seasons?
	Can the children say how the seasons differ?
	Do children know any features of the seasons?
Lesson 3	Can the children say how the seasons differ?
	Can the children say how the different seasons affect animal behaviour?
	Can children explain the terms 'adapt' and 'hibernate'?
Lesson 4	Can the children explain how the seasons affect what we wear?
	Can the children explain how the seasons affect what we do?
	Do children understand that different food grows in different seasons?
Lesson 5	Can the children identify which season has the shortest days?
	Can the children identify which season has the longest days?
	Do the children know the sun rises in the morning and sets in the evening?
Lesson 6	Can children gather weather data over a period of time?
	Can children use data to create a pictogram?
	Can children answer questions about their data?

Science Assessment Grid : Growth and Survival : Year 2

PlanBee

Growth and Survival

Group: | Year: | Term:

	Science												
Lesson 1	Do children know that all animals, including humans, have offspring that grow into adults?												
	Can children match a variety of adult animals to their offspring?												
	Do children know that growth from offspring to adult is a gradual process?												
Lesson 2	Do children know that animals have offspring that grow into adults?												
	Can children describe some of the different ways animals have offspring?												
	Do children know that not all animals reproduce in the same way?												
Lesson 3	Do children know that humans grow as they get older?												
	Do children know that body parts will grow in proportion?												
	Can children describe the stages of human development?												
Lesson 4	Do children know that all animals, including humans, need food to survive?												
	Do children know that all animals, including humans, need water to survive?												
	Do children know that all animals, including humans, need air to survive?												
Lesson 5	Do children know that animals need air, water and food to survive?												
	Do children know that an animal's survival often depends on its environment?												
	Can children suggest reasons for why a species might become extinct?												
Lesson 6	Do children know why we eat and why it is important to eat a balanced diet?												
	Do children know which foods we should eat most and least of?												
	Can children suggest meals that would be good for them?												
Lesson 7	Do children know that exercise is an important part of keeping our bodies healthy?												
	Can children identify some of the changes that take place in our body when we exercise?												
	Can children name various ways they can exercise different parts of their bodies?												

Science Assessment Grid : Exploring Everyday Materials : Year 2

PlanBee

Exploring Everyday Materials

Group: Year: Term:

	Science													
Lesson 1	Can children identify and name a variety of different materials?													
	Can children organise a variety of materials into groups according to given criteria?													
	Can children organise a variety of materials into groups according to their own criteria?													
Lesson 2	Can children recognise that some materials are naturally occurring and some are not?													
	Can children name some naturally occurring materials?													
	Can children identify objects that are made from naturally occurring materials?													
Lesson 3	Do children know that some materials change shape when you bend, squash, stretch or twist them?													
	Can children identify some materials that can change shape temporarily?													
	Can children identify some materials that cannot change shape at all?													
Lesson 4	Do children know that metal and plastic are different materials?													
	Can children identify some different things metal and plastic are used for?													
	Can children explain why a particular material is chosen to be made into an object?													
Lesson 5	Do the children know that paper and cardboard are made from wood?													
	Can the children identify features of wood, cardboard and paper?													
	Can children explain the advantages and disadvantages of using different wood products?													
Lesson 6	Do the children know that different materials can be used to make the same product?													
	Can the children identify which materials have been used in a product?													
	Can children explain how the purpose of a product might affect the material that is used?													
Lesson 7	Do the children know that products are improved and changed over time?													
	Can the children identify the different ways materials have been used?													
	Can children explain why their invention is an improvement on the original product?													

Science Assessment Grid : Living in Habitats : Year 2

PlanBee

Living in Habitats

Group: | Year: | Term:

	Science												
Lesson 1	Can children identify living things?												
	Can children identify living things that have died?												
	Can children identify things that have never been alive?												
Lesson 2	Do children know what a habitat is?												
	Do children know that animals and plants need to live in habitats they are suited to?												
	Can children match animals and plants to suitable habitats?												
Lesson 3	Can children identify some animals in a seaside habitat?												
	Can children identify some plants in a seaside habitat?												
	Do children recognise how animals and plants in a seasidehabitat are linked together?												
Lesson 4	Can children name some different types of habitats?												
	Can children describe different types of habitats?												
	Can children compare habitats and the animals and plants that live in them?												
Lesson 5	Do children know what a micro-habitat is?												
	Can children name some micro-habitats?												
	Can children identify and describe some of the animals that live in micro-habitats?												
Lesson 6	Do children know that animals and plants in a habitat are dependent on each other for food?												
	Can children construct a simple food chain?												
	Can children construct food chains that include humans?												

Science Assessment Grid : Growing Plants : Year 2

PlanBee

Growing Plants

Group: Year: Term:

	Science													
Lesson 1	Do the children know seeds grow into plants?													
	Can the children name any plants that grow from seeds?													
	Do the children understand seed packets tell us what seeds need to grow?													
Lesson 2	Do the children know plants grow from seeds and bulbs?													
	Can the children name any plants that grow from bulbs?													
	Can the children explain why some plants need to grow from a bulb?													
Lesson 3	Can children explain why seeds need to be dispersed?													
	Can children give suggestions as to why fruits have so many seeds?													
	Can children describe some of the ways in which seeds can be dispersed?													
Lesson 4	Can children ask questions that can be investigated scientifically and suggest how to answer them?													
	Can children plan and carry out an investigation, making sure it is a fair test?													
	Can children evaluate their results and draw conclusions?													
Lesson 5	Can the children explain how their plant has changed over time?													
	Can the children use scientific words to explain each stage of the plants development? For example 'germination', 'growth', 'leaves', 'stem', 'shoots', 'roots'?													
	Do the children understand what a plant needs to grow?													

Science Assessment Grid : Super Scientists : Year 2

PlanBee

Super Scientists

Group: | Year: | Term:

	Science												
Lesson 1	Can the children use their own knowledge to make predictions?												
	Can the children observe patterns?												
	Can the children talk about what they have found out?												
Lesson 2	Can the children use their own experiences to make predictions?												
	Can the children observe patterns?												
	Can the children talk about what they have found out?												
Lesson 3	Can the children use their own experiences to make predictions?												
	Can the children ask questions and make observations?												
	Can the children talk about what they have found out?												
Lesson 4	Can the children use their own experiences to make predictions?												
	Can the children observe patterns?												
	Can the children talk about what they have found out?												
Lesson 5	Can the children use their own experiences to make predictions?												
	Can the children observe patterns?												
	Can the children talk about what they have found out?												
Lesson 6	Can the children use their own experiences to make predictions?												
	Can the children observe patterns?												
	Can the children talk about what they have found out?												
Lesson 7	Can the children use their own experiences to make predictions?												
	Can the children observe patterns?												
	Can the children talk about what they have found out?												

Science Assessment Grid : Rocks, Fossils and Soils : Year 3

PlanBee

Rocks, Fossils and Soils

Group: | Year: | Term:

	Science												
Lesson 1	Do children know that rocks are used for a variety of purposes?												
	Can children identify some common rocks?												
	Can children identify rocks that are naturally occurring and those that are man-made?												
Lesson 2	Can children suggest ways of grouping rocks according to their characteristics?												
	Can children observe and compare rocks, and put them into different categories?												
	Can children justify their choices and explain their decisions?												
Lesson 3	Do children know what the terms 'erosion' and 'permeable' mean?												
	Can children plan and carry out an experiment to compare rocks based on certain characteristics?												
	Can children evaluate their results and draw conclusions?												
Lesson 4	Can children use a variety of sources to find out information about rocks and their uses?												
	Can children organise the information they have found out?												
	Can children present the information they have found out clearly?												
Lesson 5	Do children know that soil is made up of rocks and decaying organic matter?												
	Do children know that there are different types of soil?												
	Do children know that there are different layers of soil?												
Lesson 6	Do children know that rocks move in a continuous cycle?												
	Do children know what a fossil is?												
	Can children explain how fossils are formed?												
Lesson 7	Can children describe how fossils are formed?												
	Can children identify a variety of common fossils?												
	Do children know where fossils are more likely to be found and why?												

Science Assessment Grid : Light and Shadow : Year 3

PlanBee

Light and Shadow

Group: | Year: | Term:

	Science												
Lesson 1	Do children know that we need light in order to see things?												
	Do children know that dark is the absence of light?												
	Can children identify a variety of light sources?												
Lesson 2	Can children define the difference between night and day?												
	Do children know why the Sun rises and sets each day?												
	Do children know that we need light to see and that darkness is the absence of light?												
Lesson 3	Do children know that shadows are formed when light is blocked?												
	Do children know the difference between objects that are transparent, translucent and opaque?												
	Can children explore shadows using torches and express their findings?												
Lesson 4	Do children know that shadows are formed when the light from a light source is blocked by a solid object?												
	Can children use simple equipment to explore how shadows behave?												
	Can children record findings using drawings and diagrams?												
Lesson 5	Can children explain why shadows created by the Sun change position during the course of a day?												
	Can children plan and carry out an investigation?												
	Can children find patterns in the way the size of shadows change?												
Lesson 6	Do children know that light travels in a straight line?												
	Do children know that we need light in order to see?												
	Do children know that we see when light is reflected from a surface?												

Science Assessment Grid : How Plants Grow : Year 3

PlanBee

How Plants Grow

Group: Year: Term:

	Science													
Lesson 1	Can children name the main parts of flowering plants?													
	Can children explain the function of roots?													
	Can children record findings and draw conclusions?													
Lesson 2	Can children explain where plants get their water from?													
	Can children name the parts of the plant that transport water?													
	Can children plan and carry out simple investigations?													
	Can children draw simple conclusions?													
Lesson 3	Can children say what plants need to produce their own food?													
	Can children explain the function of leaves in flowering plants?													
	Can children start to explain some stages in the life cycle of flowering plants?													
Lesson 4	Can children name the main parts of flowers?													
	Can children describe the functions of the main parts of flowers?													
	Are children able to describe one of the ways in which flowering plants reproduce?													
	Do children know how and where seeds are formed in flowering plants?													
Lesson 5	Can children explain why flowering plants need to disperse their seeds?													
	Can children describe some ways in which seeds are dispersed?													
	Can children identify how seeds are dispersed based on their appearance?													
Lesson 6	Can children name the parts of a seed and describe their functions?													
	Can children identify the parts of a seed?													
	Do children know why seeds are an important food source for animals?													

Science Assessment Grid : Health and Movement : Year 3

PlanBee

Health and Movement

Group: | Year: | Term:

	Science												
Lesson 1	Do children know that humans get nutrition from what they eat?												
	Can children identify and group a variety of foods?												
	Can children recognise foods for growth and foods for energy?												
Lesson 2	Do children know that humans need to eat to grow and move?												
	Do children understand what is meant by the term 'balanced diet'?												
	Can children identify and describe which food groups we should eat most of and which food groups we should eat least of?												
Lesson 3	Do children know that different animals have different diets?												
	Can children use secondary sources to find out about the diets of different animals?												
	Can children recognise whether an animal is a herbivore, carnivore or omnivore?												
Lesson 4	Can children pose questions that can be investigated?												
	Can children gather data systematically?												
	Can children present and evaluate the results of an investigation?												
Lesson 5	Do children know that animals with a skeleton are called vertebrates?												
	Can children identify different bones in the human skeleton?												
	Can children compare bones in animal and human skeletons?												
Lesson 6	Do children know the difference between vertebrates and invertebrates?												
	Do children know that internal skeletons support and protect the body?												
	Do children know how the bodies of invertebrates support and protect them?												
Lesson 7	Do children know that muscles help us move?												
	Do children know that muscles work in pairs to move different parts of the body?												
	Do children know that some animals have strong muscles for particular purposes?												

Science Assessment Grid : Forces and Magnets : Year 3

PlanBee

Forces and Magnets

Group: | Year: | Term:

	Science												
Lesson 1	Can children explain what a force is?												
	Do children know that some forces need contact between two objects?												
	Can children identify pushes and pulls and explain the forces in action?												
Lesson 2	Do children know that forces can be measured in newtons using a force meter?												
	Can children set up and carry out an investigation to explore how objects move on different surfaces?												
	Can children draw conclusions from their observations?												
Lesson 3	Do children understand that a magnet does not need contact with an object for the force to be applied?												
	Can children explain what happens when the opposite poles of two magnets are placed close together?												
	Can children explain what happens when the same poles of two magnets are placed close together?												
Lesson 4	Can children make and test predictions about whether materials are magnetic or not?												
	Can children make careful observations?												
	Can children group objects on the basis of whether or not they are magnetic?												
Lesson 5	Can children name some uses for magnets?												
	Are children able to suggest ways in which magnets can be used to solve common problems?												
	Can children briefly describe how a compass works?												

Science Assessment Grid : States of Matter : Year 4

PlanBee

States of Matter

Group: | Year: | Term:

	Science												
Lesson 1	Can children provide a definition of solid or liquid?												
	Are children able to sort objects into solids and liquids?												
	Can children explain why they have placed an object into either group?												
Lesson 2	Can children name some of the properties of gases?												
	Are children able to write a scientific definition of a gas?												
	Can children use their scientific knowledge to draw conclusions about their experiment's results?												
Lesson 3	Can children describe the difference between the particles in solids, liquids and gases?												
	Can children describe what melting is?												
	Can children describe what freezing is?												
Lesson 4	Do children understand that different materials have different freezing/melting points?												
	Can children use their research skills to find the melting points of less common materials?												
	Can children evaluate an experiment's fairness and suggest improvements?												
Lesson 5	Can children describe the process of evaporation?												
	Can children give an everyday example of water evaporating?												
	Can children describe a way to increase the rate of evaporation?												
Lesson 6	Can children name each of the ways a material can change state?												
	Are children able to describe condensation and when it happens?												
	Can children create a diagram to help them explain condensation?												
Lesson 7	Do children know what the water cycle is?												
	Can children name the different stages of the water cycle?												
	Do children know that evaporation and condensation are processes that can be reversed?												

Science Assessment Grid : Changing Sound : Year 4

PlanBee

Changing Sound

Group: Year: Term:

	Science												
Lesson 1	Do children know that sounds are made when objects or materials vibrate?												
	Can children make careful observations?												
	Can children draw conclusions about sounds from their observations?												
Lesson 2	Do children know that vibrations from sound sources travel through different materials to the ear?												
	Do children know sound can travel through solids, liquids and gases?												
	Do children know that some materials allow sound to pass through them more easily than others?												
Lesson 3	Do children know that sounds get fainter as the distance from the sound source increases?												
	Can children carry out an investigation to explore what happens to sound as it gets further away?												
	Can children draw conclusions and describe what they have found out?												
Lesson 4	Can children name some of the reasons why preventing sound to travel is sometimes important?												
	Can children plan a test to measure how well different materials muffle sound?												
	Can children draw conclusions about which materials muffle sound the best?												
Lesson 5	Do children know that the term 'pitch' describes how high or low a sound is?												
	Can children recognise changes in pitch and identify high and low notes?												
	Can children investigate different instruments and make generalisations about pitch?												
Lesson 6	Do children know that the pitch of a stringed instrument depends on the length, thickness and tightness of the string?												
	Can children suggest ways of testing what happens to the pitch of a string when you alter the length, tightness and thickness?												
	Can children draw conclusions from their observations?												
Lesson 7	Do children know that sounds can be made by air vibrating?												
	Can children suggest ways to change the pitch of a sound made by air?												
	Can children describe how to change the length of the air column vibrating to change pitch?												

Science Assessment Grid : Living in Environments : Year 4

PlanBee

Living in Environments

Group: Year: Term:

	Science												
Lesson 1	Do children know what a habitat is?												
	Can children identify a variety of habitats?												
	Do children know that animals live in habitats that are suited to their needs?												
Lesson 2	Can children identify similarities and differences between similar organisms?												
	Can children group animals and explain the criteria that has been used to sort them?												
	Can children make careful observations to identify the characteristics of different organisms?												
Lesson 3	Do children know that animals can be categorised into broad groups according to their characteristics?												
	Can children use a classification key to help them identify which group an animal belongs to?												
	Can children identify a variety of animals that are vertebrates, invertebrates, mammals, amphibians, insects, reptiles, fish and birds?												
Lesson 4	Can children use a classification key to identify unfamiliar animals?												
	Can children use close observations to identify an animal's characteristics?												
	Can children create their own classification keys to help identify an animal?												
Lesson 5	Can children group a variety of plants according to their characteristics?												
	Can children use a classification key to identify plants?												
	Can children use other sources to help them identify a variety of local plants?												
Lesson 6	Do children know how one change in a habitat can affect all the organisms within that environment?												
	Can children list positive ways in which humans can impact the environment?												
	Can children list negative ways in which humans can impact the environment?												

Science Assessment Grid : Eating and Digestion : Year 4

PlanBee

Eating and Digestion

Group: | Year: | Term:

	Science												
Lesson 1	Can children explain why all animals, including humans, need to eat?												
	Can children identify animals that are carnivores, herbivores and omnivores?												
	Can children classify animals according to their diet?												
Lesson 2	Do children know what the terms 'producer' and 'consumer' mean in relation to food chains?												
	Can children interpret food chains?												
	Can children construct food chains?												
Lesson 3	Can children identify the different types of human teeth?												
	Do children know that the shape of teeth make them useful for different purposes?												
	Can children suggest reasons why animals might have different types of teeth?												
Lesson 4	Do children know that humans have two sets of teeth during their lifetime?												
	Can children explain why it is important to look after teeth?												
	Can children describe ways in which people can make sure their teeth stay healthy?												
Lesson 5	Can children ask relevant questions?												
	Can children use different sources of information to find the answers to questions they have asked?												
	Can children name some of the organs associated with the digestive system?												
Lesson 6	Can children name the organs associated with the digestive system?												
	Can children describe the basic functions of the organs associated with the digestive system?												
	Can children describe the process of digesting food?												

Circuits and Conductors Assessment Grid : Year 4 : Science

PlanBee

Circuits and Conductors

Group: | Year: | Term:

	Science												
Lesson 1	Are children able to identify common appliances powered by electricity?												
	Can children say what we use electricity for and why it is important?												
	Are children able to describe electricity as a form of energy?												
Lesson 2	Can children explain some of the dangers of electricity?												
	Are children able to explain the difference between battery and mains electricity?												
	Are children able to say how they can stay safe around electricity?												
Lesson 3	Can children label the components of a circuit?												
	Are children able to construct simple circuits?												
	Can children make observations about simple circuits?												
Lesson 4	Can children set up a fair test?												
	Can children make predictions about whether a material is a conductor or insulator?												
	Are children able to say whether a material is a conductor or insulator?												
Lesson 5	Can children create a simple circuit with a switch?												
	Are children able to create a simple, functioning device which uses electricity?												
	Can children troubleshoot and solve problems with their circuit?												

Science Assessment Grid : Properties and Changes of Materials : Year 5

PlanBee

Properties and Changes of Materials

Group: | Year: | Term:

	Science												
Lesson 1	Do children understand the terms 'dissolve', 'soluble', 'insoluble' and 'solution'?												
	Can children make and explain their predictions about soluble and insoluble materials?												
	Can children conduct a fair test involving soluble and insoluble materials?												
Lesson 2	Do children know what the terms soluble and insoluble mean?												
	Do children know that evaporation can be used to separate soluble materials from water?												
	Do children know that filtering can be used to separate insoluble materials from water?												
Lesson 3	Do children know that when some materials are mixed together they cannot be separated again?												
	Do children know that when an irreversible change takes place a new substance is produced?												
	Do children know how to tell if the new substance produced is a gas?												
Lesson 4	Do children know that heating and cooling materials can cause them to change?												
	Can children recognise reversible and irreversible changes caused by heating and cooling?												
	Can children explain how to reverse a change caused by heating or cooling?												
Lesson 5	Do children know that new materials are formed when materials are burned?												
	Can children describe what happens when a candle burns?												
	Can children identify and assess hazards associated with burning materials?												
Lesson 6	Can children describe everyday materials according to their properties?												
	Can children compare and group everyday materials according to their properties?												
	Can children explain why some everyday materials are useful due to their properties?												
Lesson 7	Can children list and explain some of the different properties that materials can have?												
	Do children understand that the properties materials have can affect how they are used/what they are used for?												
	Can children explain why a certain material has been chosen for a specific purpose, based on its properties?												

Science Assessment Grid : Earth and Space : Year 5

PlanBee

Earth and Space

Group: Year: Term:

	Science												
Lesson 1	Can children describe the Sun, Earth and Moon's shape as roughly spherical?												
	Are children able to clearly define the word orbit?												
	Can children describe the Sun, Earth and Moon's movements in relation to one another?												
Lesson 2	Can children explain how the rotation of Earth on its axis creates day and night?												
	Can children explain the apparent movement of the Sun across the sky?												
	Can children identify how long it takes Earth to make a full rotation?												
Lesson 3	Can children describe the different changes that happen between seasons?												
	Can children use Earth's tilted axis to explain how seasons are created?												
	Can children describe the differences in seasons between two locations in opposite hemispheres?												
Lesson 4	Can children name the different phases of the Moon?												
	Are children able to order the phases of the Moon?												
	Can children describe how the phases of the Moon are created?												
Lesson 5	Are children able to define what a solar system is?												
	Can children explain the differences between geo- and heliocentric models of the solar system are?												
	Can children compare the ideas of the solar system we know now, with those held by Ptolemy and Copernicus?												
Lesson 6	Can children name the eight planets in our solar system?												
	Are children able to name the eight planets in order from nearest to farthest from the Sun?												
	Can children use researching skills to find relevant information on a topic?												

Science Assessment Grid : Life Cycles : Year 5

PlanBee

Life Cycles

Group: | Year: | Term:

	Science												
Lesson 1	Can children name and describe the functions of the main parts of flowers?												
	Can children describe the life process of sexual reproduction in flowering plants?												
	Can children identify and label the parts of flowers?												
Lesson 2	Do children understand what asexual reproduction is?												
	Can children explain some ways in which plants reproduce asexually?												
	Can children describe the life cycles of some asexually reproducing plants?												
Lesson 3	Can children define some of the ways in which sexual reproduction in animals occurs?												
	Can children compare species that reproduce in different ways and consider reasons why?												
	Can children record data using scientific graphs and/or diagrams?												
Lesson 4	Can children describe the conditions in a local environment as well as other environments around the world?												
	Can children establish causal links between the life cycle of animals and their environment?												
	Can children compare the life cycles of animals living in different environments?												
Lesson 5	Using scientific vocabulary, can children explain some of the ways in which different animals reproduce?												
	Can children compare the life cycles and methods of reproduction of different animals?												
	Are children able to give reasons for the differences between life cycles of different animals?												
Lesson 6	Do children understand what naturalists do?												
	Can they explain why the work of naturalists is important?												
	Can children give reasons why secondary sources of scientific evidence cannot always be trusted?												

Science Assessment Grid : Changes and Reproduction : Year 5

Changes and Reproduction

Group: | Year: | Term:

	Science												
Lesson 1	Can children name the main stages in the life cycle of humans?												
	Can children correctly order the main stages?												
	Can children broadly define the age ranges for each of the main stages?												
	Can children explain some of the physical changes that occur at different stages in the life cycle of humans?												
Lesson 2	Can children describe the main stages of gestation in humans?												
	Can children explain how embryos and fetuses grow and develop in the womb?												
	Can children define and use key vocabulary to describe gestation in humans?												
Lesson 3	Can children describe the needs of a newborn baby?												
	Can they compare the needs of a human baby to those of other mammals?												
	Can they describe the stages of development that occur during childhood?												
	Can they describe how the needs of humans change at different points in their life cycle?												
Lesson 4	Can children explain the initial changes that occur inside and outside the body at the start of puberty?												
	Can children correctly identify the parts of the body that change during puberty?												
	Can children explain in simple terms the role played by hormones in the growth of humans and other animals?												
Lesson 5	Can children remember some of the initial changes during puberty?												
	Can children explain some of the ways in which boys' and girls' bodies start to differ during puberty?												
	Can children suggest some ways in which teenagers can look after themselves and stay fit and healthy during puberty?												
Lesson 6	Can children explain some ways in which the body changes during old age?												
	Can children describe some ways in which older people can stay fit and healthy?												

Science Assessment Grid : Forces in Action : Year 5

PlanBee

Forces in Action

Group: | Year: | Term:

Science

Lesson 1	Can children explain why objects fall towards the centre of the Earth?												
	Do children understand the causal link between the mass of an object and the amount of force with which gravity acts on it?												
Lesson 2	Can children define friction?												
	Do children know that friction can be useful and give some examples?												
	Can children carry out an investigation, making sure that it is a fair test?												
Lesson 3	Do children know that air resistance is a force that slows objects moving through the air?												
	Can children plan, carry out and assess experiments to investigate air resistance?												
	Can children draws conclusions from their investigations?												
Lesson 4	Do children know that water resistance slows an object moving through water?												
	Can children plan and carry out an experiment, making sure it is a fair test?												
	Can children identify trends in results and draw conclusions?												
Lesson 5	Do children recognise that that levers and pulleys allow a small force to have a greater effect?												
	Can children make and improve models that use pulleys or levers?												
	Can children explore the effects of changing parts of their model?												
Lesson 6	Do children recognise that the speed or amount of force transmitted is affected by changing the size of the gears in a transmission?												
	Can children make transmissions where two or more gears work together?												

Science Assessment Grid : Healthy Bodies : Year 6

PlanBee

Healthy Bodies

Group: | Year: | Term:

Science

Lesson 1	Can children describe some examples of how doctors in the past tested ideas about food and diet?												
	Do children know how these tests in the past have affected our ideas about healthy eating today?												
	Do children know that in order to be healthy we need a balanced diet which includes different food groups?												
Lesson 2	Can children name some of the different food groups?												
	Do children know which types of foods are included in different food groups?												
	Do children know why each different food group is important for a healthy lifestyle?												
Lesson 3	Do children know that the circulatory system transports blood and nutrients to the different parts of the body?												
	Can children describe how the circulatory system works?												
	Can children record their own resting pulse rate accurately?												
Lesson 4	Can children describe the functions of the heart?												
	Can children investigate how the heart is affected through exercise and draw conclusions?												
	Do children know that hearts need to have exercise to stay healthy?												
Lesson 5	Do children know that muscles work in pairs to move different parts of the skeleton?												
	Do children know that when muscles exercise they need an increased flow of blood because the muscles are working harder?												
	Can children explain why their pulse rate increases when they exercise?												
Lesson 6	Do children know that drugs affect the way the mind or body works?												
	Do children know that some drugs are beneficial even though they may have unpleasant side-effects?												
	Are children aware of some of the negative effects of tobacco and alcohol on the body?												
Lesson 7	Can children describe the impact that diet has on the body?												
	Can children describe why exercise is important for a healthy lifestyle?												
	Can children describe the harmful effects some drugs can have on the body?												

Science Assessment Grid : Seeing Light : Year 6

PlanBee

Seeing Light

Group: | Year: | Term:

	Science												
Lesson 1	Are children able to identify light sources and describe how light travels?												
	Can children use their knowledge of how light travels to explain how a shadow is created?												
	Can children explain why a shadow takes the shape of the object casting it?												
Lesson 2	Can children give a clear, scientific description of translucent, transparent and opaque and how this property affects an object's shadow?												
	Are children able to describe and explain how an object's shadow can be manipulated?												
	Can children make informed conclusions from their investigations?												
Lesson 3	Can children name the parts of the eye?												
	Can children describe what the main parts of the eye do to help us see?												
	Do children understand that without light, we cannot see?												
Lesson 4	Can children name the parts of the eye and briefly describe what the main parts do?												
	Can children complete a diagram to show how light allows us to see an object?												
	Do children understand that all objects reflect an amount of light?												
Lesson 5	Can children give a scientific definition of the word 'reflect'?												
	Do children understand that the angle of incidence is equal to the angle of reflection?												
	Can children think of examples of how angled mirrors can be used in different ways?												
Lesson 6	Can children give a brief description of what happens to light when it's refracted?												
	Are children able to differentiated between if an object will reflect or refract light?												
	Can children give some examples of objects which use refraction in a useful way?												
Lesson 7	Do children understand that white light can be split into a spectrum of seven colours?												
	Are children able to name the seven colours that light can be split into?												
	Can children explain how the light is refracted based on the colours' wavelengths?												

Science Assessment Grid : Classifying Organisms : Year 6

PlanBee

Classifying Organisms

Group: | Year: | Term:

	Science												
Lesson 1	Do children know that organisms can be grouped according to their characteristics?												
	Can children describe the characteristics of different classifications of animals?												
	Can children match animals to their group according to their characteristics?												
Lesson 2	Can children classify organisms according to broad characteristics?												
	Can children find ways to distinguish between organisms that are similar?												
	Can children use appropriate scientific vocabulary to describe organisms and their features?												
Lesson 3	Do children know that plants can be sorted into groups according to their characteristics?												
	Can children explain the difference between vascular and non-vascular plants?												
	Can children explain the difference between flowering and non-flowering plants?												
Lesson 4	Do children know who Carl Linnaeus is and how he contributed to science?												
	Do children know that animals can be assigned to specific groups based on their characteristics?												
	Can children give reasons for why classification systems are important?												
Lesson 5	Do children know what micro-organisms are?												
	Do children know that micro-organisms can be classified into groups?												
	Do children understand that some micro-organisms can be harmful and others can be helpful?												
Lesson 6	Can children identify a variety of different organisms found in their local environment?												
	Can children classify a variety of organisms appropriately?												
	Can children use a variety of sources of information to identify organisms they are unfamiliar with?												

Science Assessment Grid : Evolution and Inheritance : Year 6

PlanBee

Evolution and Inheritance

Group: | Year: | Term:

	Science												
Lesson 1	Do children recognise that animals produce offspring that are like themselves?												
	Can children explain why variation in offspring occurs?												
Lesson 2	Can children describe the conditions of an environment?												
	Can children identify characteristics which help an organism to be well suited to its environment?												
	Do children understand why different organisms in the same environment may have different characteristics?												
Lesson 3	Do children know that not all inherited characteristics are advantageous?												
	Can children explain why advantageous characteristics are more likely to be passed from generation to generation?												
	Do children understand that whole species can evolve in this way?												
Lesson 4	Do children know that our understanding of process of evolution has developed over time?												
	Can children share what they have learned about the process of evolution?												
	Can children share what they have learned about the life and work of Charles Darwin?												
Lesson 5	Do children understand that a species can change over time due to mutations?												
	Do children understand that a species can change over time due to external factors such as competition from other species, disease or climate change?												
Lesson 6	Do children know that primate species (including humans) have changed over time?												
	Can children explain some ways in which human behaviour has changed the characteristics of other species?												
	Can children identify positive and negative consequences of this human behaviour?												

Science Assessment Grid : Changing Circuits : Year 6

PlanBee

Changing Circuits

Group: Year: Term:

	Science												
Lesson 1	Can children distinguish the differences between static and current electricity?												
	Can children describe what electrical charge is?												
	Can children give an example of where static electricity might be generated?												
Lesson 2	Do children know what the main components of a circuit are?												
	Do children recognise what the difference between a series and a parallel circuit is?												
	Can children draw and/or construct working circuits?												
Lesson 3	Do children know why symbols are used to draw circuit diagrams?												
	Can children recognise the symbols for various common circuit components?												
	Can children use conventional circuit symbols to draw and/ or construct circuits?												
Lesson 4	Do children know that the brightness of a bulb or the speed of a motor can be changed in a circuit?												
	Do children know that the brightness of a bulb or speed of a motor depends on how much power is supplied to each component?												
	Do children know that bulbs and motors will blow out if too high a voltage is used?												
Lesson 5	Do children know that the brightness of the bulb in a circuit can be altered by changing the wires?												
	Can children suggest questions to investigate, decide what to do and what equipment to use to test the question?												
	Can children make fair comparisons and draw conclusions from their results?												
Lesson 6	Can children design a simple circuit for a purpose?												
	Are children able to build a working circuit for a purpose?												
	Can children use their knowledge of circuits and components such as switches to create more complex circuits?												