



Science Lesson Plans For Official Use

Homeschooling Program Department

Revised on July 14th 2024

Grade 1 Science Lesson Plan

Term 1 (12 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|--|-----------------------------|---|------------------------------------|--|
| 1 | Identify living and non-living things | Living vs non-living things | Observe and classify items as living or non-living | Real objects, pictures, videos | Classify items as living or non-living |
| 2 | Understand the importance of a healthy diet | Healthy vs unhealthy food | Compare different types of food, discuss healthy eating | Food charts, real food samples | Creating a healthy meal plan |
| 3 | Recognize different body parts and their functions | Body parts and functions | Label body parts on a diagram, explain their functions | Body diagrams, charts | Worksheet on body parts |
| 4 | Identify and classify different types of animals | Animal classification | Group animals based on observable characteristics | Animal models, pictures, charts | Animal classification project |
| 5 | Understand the basic needs of plants | Plant needs | Discuss what plants need to grow, observe plant growth | Plant seeds, soil, water | Growing a plant and recording observations |
| 6 | Recognize the importance of recycling | Recycling | Identify recyclable materials, discuss recycling benefits | Recycling bins, posters | Creating a recycling project |
| 7 | Understand the water cycle | Water cycle | Demonstrate the water cycle, discuss each stage | Water cycle diagram, videos | Creating a water cycle model |

| | | | | | |
|----|---|------------------|--|---|------------------------------------|
| 8 | Recognize different weather patterns | Weather patterns | Observe and discuss different weather patterns | Weather charts, pictures | Weather observation diary |
| 9 | Identify different habitats and their inhabitants | Habitats | Explore different habitats, discuss animals and plants found in each | Habitat models, videos, books | Poster on different habitats |
| 10 | Understand the concept of force | Types of force | Demonstrate push and pull forces using everyday objects | Balls, ropes, toys | Experiment with push and pull |
| 11 | Recognize different forms of energy | Forms of energy | Experiment with light, sound, and heat energy | Flashlight, musical instruments, heater | Experiments on forms of energy |
| 12 | Understand basic hygiene practices | Personal hygiene | Demonstrate proper hand washing, brushing teeth | Soap, toothbrush, water | Demonstration of hygiene practices |

Term 2 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|------|------------------------------------|-----------------|--|--------------------------------|----------------------------|
| 1 | Identify different sources of food | Sources of food | Discuss plant and animal sources of food | Food charts, real food samples | Food source classification |

| | | | | | |
|---|---------------------------------------|---------------------|--|---------------------------|---------------------------|
| 2 | Understand the importance of exercise | Exercise and health | Discuss different types of exercise and their benefits | Exercise videos, pictures | Creating an exercise plan |
|---|---------------------------------------|---------------------|--|---------------------------|---------------------------|

| | | | | | |
|---|--|-------------------------|--|---------------------------------|----------------------------------|
| 3 | Recognize different materials and their properties | Properties of materials | Observe and classify materials based on properties | Samples of wood, metal, plastic | Materials classification project |
|---|--|-------------------------|--|---------------------------------|----------------------------------|

| | | | | | |
|---|--------------------------------------|------------------|--|--------------------------|---------------------------------------|
| 4 | Understand the life cycle of a plant | Plant life cycle | Observe and discuss the stages of a plant life cycle | Plant seeds, soil, water | Drawing and labeling plant life cycle |
|---|--------------------------------------|------------------|--|--------------------------|---------------------------------------|

| | | | | | |
|---|--|--------------------|--|--------------------------|------------------------------|
| 5 | Recognize different types of pollution | Types of pollution | Discuss air, water, and land pollution and their effects | Pollution images, videos | Poster on types of pollution |
|---|--|--------------------|--|--------------------------|------------------------------|

| | | | | | |
|---|--|---------------------|--|------------------------------------|--------------------------------|
| 6 | Understand the importance of saving energy | Energy conservation | Discuss ways to save energy at home and school | Energy conservation charts, videos | Creating an energy-saving plan |
|---|--|---------------------|--|------------------------------------|--------------------------------|

| | | | | | |
|---|------------------------------------|-----------------|--|-------------------------|------------------------------|
| 7 | Identify different types of plants | Types of plants | Observe and classify different plants based on their characteristics | Plant samples, pictures | Plant classification project |
|---|------------------------------------|-----------------|--|-------------------------|------------------------------|

| | | | | | |
|---|-------------------------------------|---------|---|-------------------------|--------------------------|
| 8 | Recognize the importance of insects | Insects | Discuss different types of insects and their roles in the environment | Insect models, pictures | Insect observation diary |
|---|-------------------------------------|---------|---|-------------------------|--------------------------|

| | | | | | |
|---|----------------------------------|---------------|---|----------------------|-----------------------------|
| 9 | Identify different types of soil | Types of soil | Observe and classify different types of soil based on texture and color | Soil samples, charts | Soil classification project |
|---|----------------------------------|---------------|---|----------------------|-----------------------------|

| | | | | | |
|----|--------------------------------------|---------|---|--------------------|-------------------------|
| 10 | Understand the importance of the sun | The sun | Discuss the role of the sun in providing light and heat | Sun charts, videos | Sun observation project |
|----|--------------------------------------|---------|---|--------------------|-------------------------|

Term 3 (9 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|---|-----------------------|--|------------------------------------|-----------------------------------|
| 1 | Recognize different landforms | Landforms | Discuss and identify different landforms like mountains, valleys, and plains | Landform models, pictures | Creating a landform model |
| 2 | Understand the importance of water | Water resources | Discuss different sources of water and their uses | Water charts, videos | Water usage diary |
| 3 | Identify different types of rocks | Types of rocks | Observe and classify different rocks based on their properties | Rock samples, charts | Rock classification project |
| 4 | Recognize the importance of community helpers | Community helpers | Discuss different community helpers and their roles | Pictures of community helpers | Community helper role-play |
| 5 | Understand basic first aid | First aid basics | Discuss and demonstrate basic first aid techniques | First aid kit, videos | First aid demonstration |
| 6 | Identify different types of weather | Weather types | Observe and discuss different weather types like sunny, | Weather charts, pictures | Weather observation journal |

| | | | | | |
|---|---------------------------------------|-----------------|--|-------------------------|------------------------------|
| | | | rainy, and cloudy | | |
| 7 | Recognize the importance of forests | Forests | Discuss different types of forests and their importance | Forest images, videos | Forest preservation project |
| 8 | Understand the basic needs of animals | Animal needs | Discuss what animals need to survive | Animal charts, videos | Animal needs project |
| 9 | Identify different types of fruits | Types of fruits | Observe and classify different fruits based on their characteristics | Fruit samples, pictures | Fruit classification project |

Grade 2 Science Lesson Plan

Term 1 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|--|-----------------------|--|------------------------------------|--|
| 1 | Understand the basic needs of plants | Plant needs | Discuss what plants need to grow, observe plant growth | Plant seeds, soil, water | Growing a plant and recording observations |
| 2 | Identify and classify different types of animals | Animal classification | Group animals based on observable characteristics | Animal models, pictures, charts | Animal classification project |

| | | | | | |
|---|---|-------------------------|--|---|----------------------------------|
| 3 | Recognize the importance of recycling | Recycling | Identify recyclable materials, discuss recycling benefits | Recycling bins, posters | Creating a recycling project |
| 4 | Understand the water cycle | Water cycle | Demonstrate the water cycle, discuss each stage | Water cycle diagram, videos | Creating a water cycle model |
| 5 | Recognize different weather patterns | Weather patterns | Observe and discuss different weather patterns | Weather charts, pictures | Weather observation diary |
| 6 | Identify different habitats and their inhabitants | Habitats | Explore different habitats, discuss animals and plants found in each | Habitat models, videos, books | Poster on different habitats |
| 7 | Understand the concept of force | Types of force | Demonstrate push and pull forces using everyday objects | Balls, ropes, toys | Experiment with push and pull |
| 8 | Recognize different forms of energy | Forms of energy | Experiment with light, sound, and heat energy | Flashlight, musical instruments, heater | Experiments on forms of energy |
| 9 | Identify and classify different materials | Properties of materials | Observe and classify materials based on properties | Samples of wood, metal, plastic | Materials classification project |

| | | | | | |
|----|---|------------------|---|-------------------------|------------------------------------|
| 10 | Understand the importance of personal hygiene | Personal hygiene | Demonstrate proper hand washing, brushing teeth | Soap, toothbrush, water | Demonstration of hygiene practices |
|----|---|------------------|---|-------------------------|------------------------------------|

Term 2 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|--|-----------------------|---|------------------------------------|---------------------------------------|
| 1 | Identify different sources of food | Sources of food | Discuss plant and animal sources of food | Food charts, real food samples | Food source classification |
| 2 | Understand the importance of exercise | Exercise and health | Discuss different types of exercise and their benefits | Exercise videos, pictures | Creating an exercise plan |
| 3 | Recognize different forms of transportation | Transportation | Discuss different types of transportation and their uses | Transportation models, pictures | Project on forms of transportation |
| 4 | Understand the life cycle of a plant | Plant life cycle | Observe and discuss the stages of a plant life cycle | Plant seeds, soil, water | Drawing and labeling plant life cycle |
| 5 | Identify different types of soil | Types of soil | Observe and classify different types of soil based on texture and color | Soil samples, charts | Soil classification project |
| 6 | Recognize different materials and their uses | Uses of materials | Discuss how different materials are | Samples of different materials | Materials usage project |

| | | | | | |
|----|---|-----------------------|---|---------------------------------------|--|
| | | | used in everyday life | | |
| 7 | Understand the basic needs of animals | Animal needs | Discuss what animals need to survive | Animal charts, videos | Animal needs project |
| 8 | Identify different types of fruits and vegetables | Fruits and vegetables | Observe and classify different fruits and vegetables based on their characteristics | Fruit and vegetable samples, pictures | Fruit and vegetable classification project |
| 9 | Recognize the importance of the sun | The sun | Discuss the role of the sun in providing light and heat | Sun charts, videos | Sun observation project |
| 10 | Understand basic first aid | First aid basics | Discuss and demonstrate basic first aid techniques | First aid kit, videos | First aid demonstration |

Term 3 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|------------------------------------|-----------------------|--|------------------------------------|-----------------------------------|
| 1 | Recognize different landforms | Landforms | Discuss and identify different landforms like mountains, valleys, and plains | Landform models, pictures | Creating a landform model |
| 2 | Understand the importance of water | Water resources | Discuss different sources of water and their uses | Water charts, videos | Water usage diary |

| | | | | | |
|---|---|---------------------|--|-------------------------------|-----------------------------------|
| 3 | Identify different types of rocks | Types of rocks | Observe and classify different rocks based on their properties | Rock samples, charts | Rock classification project |
| 4 | Recognize the importance of forests | Forests | Discuss different types of forests and their importance | Forest images, videos | Forest preservation project |
| 5 | Understand the concept of recycling | Recycling | Discuss the benefits of recycling and how to recycle different materials | Recycling bins, posters | Recycling project |
| 6 | Identify different types of magnets | Magnets | Explore and discuss different types of magnets and their uses | Magnet samples, charts | Magnet exploration project |
| 7 | Recognize the importance of community helpers | Community helpers | Discuss different community helpers and their roles | Pictures of community helpers | Community helper role-play |
| 8 | Understand the basics of weather forecasting | Weather forecasting | Discuss how weather forecasts are made and their importance | Weather maps, videos | Creating a weather forecast chart |
| 9 | Identify different types of ecosystems | Ecosystems | Discuss different ecosystems and their components | Ecosystem charts, books | Project on ecosystems |

| | | | | | |
|----|--|------------|--|-----------------------------|--|
| 10 | Recognize the importance of technological advancements | Technology | Discuss various technological advancements and their impact on society | Technology articles, videos | Presentation on technological advancements |
|----|--|------------|--|-----------------------------|--|

Grade 3 Science Lesson Plan

Term 1 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|------|--|-----------------------------|---|---|--|
| 1 | Understand the basic needs of plants and animals | Needs of plants and animals | Discuss and observe the basic needs of plants and animals | Plant seeds, soil, water, animal pictures | Growing a plant and recording observations, animal needs chart |
| 2 | Identify and classify different types of animals | Animal classification | Group animals based on observable characteristics | Animal models, pictures, charts | Animal classification project |
| 3 | Recognize the importance of recycling | Recycling | Identify recyclable materials, discuss recycling benefits | Recycling bins, posters | Creating a recycling project |
| 4 | Understand the water cycle | Water cycle | Demonstrate the water cycle, discuss each stage | Water cycle diagram, videos | Creating a water cycle model |
| 5 | Recognize different weather patterns | Weather patterns | Observe and discuss different weather patterns | Weather charts, pictures | Weather observation diary |

| | | | | | |
|----|---|-------------------------|--|---|------------------------------------|
| 6 | Identify different habitats and their inhabitants | Habitats | Explore different habitats, discuss animals and plants found in each | Habitat models, videos, books | Poster on different habitats |
| 7 | Understand the concept of force | Types of force | Demonstrate push and pull forces using everyday objects | Balls, ropes, toys | Experiment with push and pull |
| 8 | Recognize different forms of energy | Forms of energy | Experiment with light, sound, and heat energy | Flashlight, musical instruments, heater | Experiments on forms of energy |
| 9 | Identify and classify different materials | Properties of materials | Observe and classify materials based on properties | Samples of wood, metal, plastic | Materials classification project |
| 10 | Understand the importance of personal hygiene | Personal hygiene | Demonstrate proper hand washing, brushing teeth | Soap, toothbrush, water | Demonstration of hygiene practices |

Term 2 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|------------------------------------|-----------------------|--|------------------------------------|-----------------------------------|
| 1 | Identify different sources of food | Sources of food | Discuss plant and animal sources of food | Food charts, real food samples | Food source classification |

| | | | | | |
|---|---|-----------------------|---|---------------------------------------|--|
| 2 | Understand the importance of exercise | Exercise and health | Discuss different types of exercise and their benefits | Exercise videos, pictures | Creating an exercise plan |
| 3 | Recognize different forms of transportation | Transportation | Discuss different types of transportation and their uses | Transportation models, pictures | Project on forms of transportation |
| 4 | Understand the life cycle of a plant | Plant life cycle | Observe and discuss the stages of a plant life cycle | Plant seeds, soil, water | Drawing and labeling plant life cycle |
| 5 | Identify different types of soil | Types of soil | Observe and classify different types of soil based on texture and color | Soil samples, charts | Soil classification project |
| 6 | Recognize different materials and their uses | Uses of materials | Discuss how different materials are used in everyday life | Samples of different materials | Materials usage project |
| 7 | Understand the basic needs of animals | Animal needs | Discuss what animals need to survive | Animal charts, videos | Animal needs project |
| 8 | Identify different types of fruits and vegetables | Fruits and vegetables | Observe and classify different fruits and vegetables based on their characteristics | Fruit and vegetable samples, pictures | Fruit and vegetable classification project |

| | | | | | |
|----|-------------------------------------|------------------|---|-----------------------|-------------------------|
| 9 | Recognize the importance of the sun | The sun | Discuss the role of the sun in providing light and heat | Sun charts, videos | Sun observation project |
| 10 | Understand basic first aid | First aid basics | Discuss and demonstrate basic first aid techniques | First aid kit, videos | First aid demonstration |

Term 3 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|-------------------------------------|-----------------------|--|------------------------------------|-----------------------------------|
| 1 | Recognize different landforms | Landforms | Discuss and identify different landforms like mountains, valleys, and plains | Landform models, pictures | Creating a landform model |
| 2 | Understand the importance of water | Water resources | Discuss different sources of water and their uses | Water charts, videos | Water usage diary |
| 3 | Identify different types of rocks | Types of rocks | Observe and classify different rocks based on their properties | Rock samples, charts | Rock classification project |
| 4 | Recognize the importance of forests | Forests | Discuss different types of forests and their importance | Forest images, videos | Forest preservation project |

| | | | | | |
|----|--|---------------------|--|-------------------------------|--|
| 5 | Understand the concept of recycling | Recycling | Discuss the benefits of recycling and how to recycle different materials | Recycling bins, posters | Recycling project |
| 6 | Identify different types of magnets | Magnets | Explore and discuss different types of magnets and their uses | Magnet samples, charts | Magnet exploration project |
| 7 | Recognize the importance of community helpers | Community helpers | Discuss different community helpers and their roles | Pictures of community helpers | Community helper role-play |
| 8 | Understand the basics of weather forecasting | Weather forecasting | Discuss how weather forecasts are made and their importance | Weather maps, videos | Creating a weather forecast chart |
| 9 | Identify different types of ecosystems | Ecosystems | Discuss different ecosystems and their components | Ecosystem charts, books | Project on ecosystems |
| 10 | Recognize the importance of technological advancements | Technology | Discuss various technological advancements and their impact on society | Technology articles, videos | Presentation on technological advancements |

Grade 4 Science Lesson Plan

Term 1 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|---|-----------------------|---|--------------------------------------|------------------------------------|
| 1 | Understand the structure of the human body | Human body systems | Explore different body systems, discuss their functions | Human body models, charts | Presentation on human body systems |
| 2 | Recognize the importance of electricity | Electricity | Experiment with simple circuits, discuss safety | Batteries, wires, bulbs | Building a simple circuit |
| 3 | Identify renewable and non-renewable resources | Resources | Discuss different types of resources, their uses and conservation | Resource charts, videos | Project on conserving resources |
| 4 | Understand the solar system | Solar system | Explore planets, stars, and moons, discuss their characteristics | Solar system models, videos | Creating a solar system model |
| 5 | Recognize the importance of ecosystems | Ecosystems | Discuss different ecosystems, their components and interactions | Ecosystem charts, books | Project on an ecosystem |
| 6 | Identify different types of weather and climate | Weather and climate | Observe weather patterns, discuss climate zones | Weather instruments, maps | Recording weather observations |
| 7 | Understand the basics of magnetism | Magnetism | Explore properties of magnets, their uses | Magnet samples, iron filings, charts | Magnet experiments |

| | | | | | |
|----|--|--------------------|---|---|---|
| 8 | Recognize the importance of water conservation | Water conservation | Discuss the water cycle, ways to conserve water | Water cycle models, conservation charts | Water conservation project |
| 9 | Identify different types of rocks and minerals | Rocks and minerals | Observe and classify rocks and minerals based on properties | Rock and mineral samples, charts | Rock and mineral classification project |
| 10 | Understand the importance of healthy living | Healthy living | Discuss nutrition, exercise, and hygiene | Health charts, food pyramid, videos | Creating a healthy living plan |

Term 2 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|---|-----------------------|--|-------------------------------------|---|
| 1 | Understand the life cycle of animals | Animal life cycles | Observe and discuss the life cycles of different animals | Animal life cycle charts, videos | Drawing and labeling animal life cycles |
| 2 | Recognize the importance of the Earth's resources | Earth's resources | Discuss natural resources and their uses | Resource charts, samples | Project on using natural resources |
| 3 | Identify the states of matter | States of matter | Experiment with solids, liquids, and gases | Various materials (water, air, ice) | Experiments on states of matter |
| 4 | Understand the basics of sound | Sound | Explore how sound is produced and travels | Tuning forks, musical instruments | Sound experiments |

| | | | | | |
|----|---|---------------------|---|------------------------------------|------------------------------------|
| 5 | Recognize different types of pollution | Pollution | Discuss air, water, and land pollution and their effects | Pollution images, videos | Poster on types of pollution |
| 6 | Understand the importance of saving energy | Energy conservation | Discuss ways to save energy at home and school | Energy conservation charts, videos | Creating an energy-saving plan |
| 7 | Identify different types of plants | Types of plants | Observe and classify different plants based on their characteristics | Plant samples, pictures | Plant classification project |
| 8 | Recognize the importance of insects | Insects | Discuss different types of insects and their roles in the environment | Insect models, pictures | Insect observation diary |
| 9 | Understand basic weather instruments | Weather instruments | Explore and discuss different weather instruments | Thermometer, rain gauge, wind vane | Creating a weather instrument |
| 10 | Recognize different forms of transportation | Transportation | Discuss different types of transportation and their uses | Transportation models, pictures | Project on forms of transportation |

Term 3 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|----------------------------|-----------------------|-----------------------------|------------------------------------|-----------------------------------|
|-------------|----------------------------|-----------------------|-----------------------------|------------------------------------|-----------------------------------|

| | | | | | |
|---|---|------------------------|---|--------------------------------------|--|
| 1 | Understand the concept of force | Force and motion | Explore push and pull forces, friction, and gravity | Balls, ramps, scales | Experiments on force and motion |
| 2 | Recognize the importance of simple machines | Simple machines | Discuss different types of simple machines and how they work | Lever, pulley, wheel and axle models | Simple machine experiments |
| 3 | Identify the different forms of energy | Forms of energy | Explore and experiment with light, heat, and electrical energy | Flashlights, heaters, batteries | Energy experiments |
| 4 | Understand the basics of plant reproduction | Plant reproduction | Observe and discuss how plants reproduce, pollination, seed dispersal | Flowers, seeds, charts | Drawing the plant reproduction process |
| 5 | Recognize the importance of the moon | The moon | Discuss the phases of the moon, its effects on Earth | Moon phase charts, videos | Moon observation project |
| 6 | Understand the basics of the human digestive system | Human digestive system | Explore and discuss the process of digestion | Digestive system models, charts | Project on the human digestive system |
| 7 | Identify different types of ecosystems | Ecosystems | Discuss different ecosystems and their components | Ecosystem charts, books | Project on ecosystems |

| | | | | | |
|----|--|--------------------|--|-----------------------------|--|
| 8 | Recognize the importance of technological advancements | Technology | Discuss various technological advancements and their impact on society | Technology articles, videos | Presentation on technological advancements |
| 9 | Understand the basics of light and shadow | Light and shadow | Explore how light travels, formation of shadows | Torches, opaque objects | Experiments with light and shadow |
| 10 | Recognize the importance of Earth's atmosphere | Earth's atmosphere | Discuss the layers of the atmosphere, its importance | Atmosphere charts, videos | Project on Earth's atmosphere |

Grade 5 Science Lesson Plan

Term 1 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|--|-----------------------|---|------------------------------------|---|
| 1 | Understand the structure and function of cells | Cells | Observe plant and animal cells under a microscope, discuss cell functions | Microscopes, slides, cell diagrams | Drawing and labeling plant and animal cells |
| 2 | Recognize the different parts of a plant | Plant anatomy | Identify and describe the function of roots, stems, leaves, and flowers | Plant samples, diagrams | Plant dissection and labeling |

| | | | | | |
|---|--|--------------------|--|-------------------------------------|---|
| 3 | Understand photosynthesis | Photosynthesis | Discuss the process of photosynthesis, experiment with plants | Plant samples, light source, charts | Experiment on the effect of light on plants |
| 4 | Identify different types of ecosystems | Ecosystems | Explore various ecosystems, discuss interactions between organisms | Ecosystem models, videos | Project on a chosen ecosystem |
| 5 | Understand the human circulatory system | Circulatory system | Explore the heart, blood vessels, and blood, discuss their functions | Heart models, diagrams, videos | Creating a model of the circulatory system |
| 6 | Recognize the importance of the respiratory system | Respiratory system | Discuss the process of breathing, explore the lungs and airways | Lung models, charts | Project on the respiratory system |
| 7 | Identify different states of matter | States of matter | Experiment with solids, liquids, and gases, discuss properties | Various materials (water, ice, air) | Experiments on states of matter |
| 8 | Understand the basics of light and sound | Light and sound | Explore how light travels, sound waves, and their properties | Flashlights, tuning forks, charts | Light and sound experiments |
| 9 | Recognize the importance of the water cycle | Water cycle | Discuss the stages of the water cycle, create a model | Water cycle diagrams, videos | Creating a water cycle model |

| | | | | | |
|----|---|---------------------|--|---------------------------|-----------------------------|
| 10 | Understand basic weather and climate concepts | Weather and climate | Observe and record weather patterns, discuss climate zones | Weather instruments, maps | Weather observation journal |
|----|---|---------------------|--|---------------------------|-----------------------------|

Term 2 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|---|-----------------------|--|--------------------------------------|-----------------------------------|
| 1 | Understand the basics of the digestive system | Digestive system | Explore and discuss the process of digestion, organs involved | Digestive system models, charts | Project on the digestive system |
| 2 | Recognize the importance of nutrients | Nutrition | Discuss different nutrients, their sources, and their importance | Food charts, real food samples | Creating a balanced meal plan |
| 3 | Identify renewable and non-renewable energy sources | Energy sources | Discuss various energy sources, their uses, and conservation | Energy charts, videos | Project on energy conservation |
| 4 | Understand the concept of forces and motion | Forces and motion | Experiment with push and pull forces, friction, gravity | Balls, ramps, scales | Experiments on forces and motion |
| 5 | Recognize the importance of simple machines | Simple machines | Discuss different types of simple machines and their uses | Lever, pulley, wheel and axle models | Simple machine experiments |

| | | | | | |
|----|---|---------------------|---|------------------------------------|---|
| 6 | Identify different types of rocks and minerals | Rocks and minerals | Observe and classify rocks and minerals based on properties | Rock and mineral samples, charts | Rock and mineral classification project |
| 7 | Understand the basics of plant reproduction | Plant reproduction | Explore and discuss how plants reproduce, pollination, seed dispersal | Flowers, seeds, charts | Drawing the plant reproduction process |
| 8 | Recognize the importance of the Earth's resources | Earth's resources | Discuss natural resources and their uses | Resource charts, samples | Project on using natural resources |
| 9 | Identify different types of weather instruments | Weather instruments | Explore and discuss different weather instruments | Thermometer, rain gauge, wind vane | Creating a weather instrument |
| 10 | Understand basic concepts of electricity | Electricity | Experiment with simple circuits, discuss safety | Batteries, wires, bulbs | Building a simple circuit |

Term 3 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|---|-----------------------|---|------------------------------------|------------------------------------|
| 1 | Recognize the different parts and functions of the human body | Human body systems | Explore the skeletal, muscular, and nervous systems | Human body models, charts | Presentation on human body systems |

| | | | | | |
|---|---|--------------------|--|---|--|
| 2 | Understand the basics of the solar system | Solar system | Explore planets, stars, and moons, discuss their characteristics | Solar system models, videos | Creating a solar system model |
| 3 | Identify different forms of energy | Forms of energy | Experiment with light, heat, and electrical energy | Flashlights, heaters, batteries | Energy experiments |
| 4 | Recognize the importance of ecosystems | Ecosystems | Discuss different ecosystems, their components and interactions | Ecosystem charts, books | Project on an ecosystem |
| 5 | Understand the basics of magnetism | Magnetism | Explore properties of magnets, their uses | Magnet samples, iron filings, charts | Magnet experiments |
| 6 | Recognize the importance of water conservation | Water conservation | Discuss the water cycle, ways to conserve water | Water cycle models, conservation charts | Water conservation project |
| 7 | Identify the layers of the Earth | Earth's layers | Explore and discuss the crust, mantle, core | Earth models, diagrams | Drawing and labeling Earth's layers |
| 8 | Understand the importance of technological advancements | Technology | Discuss various technological advancements and their impact on society | Technology articles, videos | Presentation on technological advancements |

| | | | | | |
|----|--|------------------------|---|---------------------------------|-------------------------------------|
| 9 | Recognize different forms of transportation | Transportation | Discuss different types of transportation and their uses | Transportation models, pictures | Project on forms of transportation |
| 10 | Review and prepare for National Grade 6 Assessment | Review and preparation | Review all key topics from the year, practice assessments | Review sheets, practice tests | Mock assessments, review activities |

Grade 6 Science Lesson Plan

Term 1 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|--|-----------------------|---|------------------------------------|---|
| 1 | Understand the structure and function of cells | Cells | Observe plant and animal cells under a microscope, discuss cell functions | Microscopes, slides, cell diagrams | Drawing and labeling plant and animal cells |
| 2 | Recognize the parts and functions of the human body | Human body systems | Explore the circulatory, respiratory, and digestive systems | Body models, diagrams, videos | Creating models of body systems |
| 3 | Understand the basics of plant and animal reproduction | Reproduction | Discuss sexual and asexual reproduction, observe examples | Plant seeds, flower models, charts | Reproduction process projects |
| 4 | Identify different ecosystems and their importance | Ecosystems | Discuss various ecosystems, their components, | Ecosystem models, videos, books | Project on chosen ecosystem |

| | | | | | |
|----|---|------------------------|--|-------------------------------------|-------------------------------------|
| | | | and interactions | | |
| 5 | Understand the properties and states of matter | States of matter | Experiment with solids, liquids, and gases, discuss their properties | Various materials (water, ice, air) | States of matter experiments |
| 6 | Recognize the importance of the water cycle | Water cycle | Discuss the stages of the water cycle, create a model | Water cycle diagrams, videos | Creating a water cycle model |
| 7 | Understand the basics of light and sound | Light and sound | Explore how light travels, sound waves, and their properties | Flashlights, tuning forks, charts | Light and sound experiments |
| 8 | Identify renewable and non-renewable energy sources | Energy sources | Discuss various energy sources, their uses, and conservation | Energy charts, videos | Project on energy conservation |
| 9 | Recognize different types of forces and motion | Forces and motion | Experiment with push and pull forces, friction, gravity | Balls, ramps, scales | Experiments on forces and motion |
| 10 | Review and prepare for National Grade 6 Assessment | Review and preparation | Review key topics from the term, practice assessments | Review sheets, practice tests | Mock assessments, review activities |

Term 2 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|------|---------------------|----------------|----------------------|-----------------------------|----------------------------|
|------|---------------------|----------------|----------------------|-----------------------------|----------------------------|

| | | | | | |
|---|---|--------------------|--|----------------------------------|---|
| 1 | Understand the human nervous system | Nervous system | Explore the brain, spinal cord, and nerves, discuss their functions | Nervous system models, charts | Project on the nervous system |
| 2 | Recognize the importance of nutrition and a balanced diet | Nutrition | Discuss different nutrients, their sources, and importance | Food charts, real food samples | Creating a balanced meal plan |
| 3 | Identify different types of rocks and minerals | Rocks and minerals | Observe and classify rocks and minerals based on properties | Rock and mineral samples, charts | Rock and mineral classification project |
| 4 | Understand the basics of electricity and circuits | Electricity | Experiment with simple circuits, discuss safety | Batteries, wires, bulbs | Building simple circuits |
| 5 | Recognize different forms of energy and their conversions | Forms of energy | Explore light, heat, and electrical energy, discuss energy conversions | Flashlights, heaters, batteries | Energy conversion experiments |
| 6 | Identify the layers of the Earth | Earth's layers | Discuss the crust, mantle, core, and their characteristics | Earth models, diagrams | Drawing and labeling Earth's layers |
| 7 | Understand the basics of the solar system | Solar system | Explore planets, stars, and moons, discuss their characteristics | Solar system models, videos | Creating a solar system model |

| | | | | | |
|----|---|------------------------|---|-------------------------------|--------------------------------------|
| 8 | Recognize the importance of ecosystems and biodiversity | Biodiversity | Discuss the importance of biodiversity, threats to ecosystems | Biodiversity charts, videos | Project on protecting biodiversity |
| 9 | Understand weather and climate | Weather and climate | Discuss weather patterns, climate zones, and their impact | Weather instruments, maps | Weather observation journal |
| 10 | Review and prepare for National Grade 6 Assessment | Review and preparation | Review key topics from the term, practice assessments | Review sheets, practice tests | Mock assessments , review activities |

Term 3 (10 Weeks)

| Week | Learning Objectives | Content/Topics | Learning Experiences | Teaching/Learning Resources | Assessments (Projects etc) |
|-------------|--|-----------------------|---|------------------------------------|-----------------------------------|
| 1 | Understand the basics of plant biology | Plant biology | Discuss plant structure, photosynthesis , and respiration | Plant models, charts, diagrams | Plant biology experiments |
| 2 | Recognize the importance of the Earth's atmosphere | Atmosphere | Discuss the layers of the atmosphere and their importance | Atmosphere charts, videos | Project on Earth's atmosphere |
| 3 | Identify different types of simple machines | Simple machines | Explore levers, pulleys, wheels and axles, and their uses | Simple machine models, diagrams | Simple machine experiments |

| | | | | | |
|----|--|------------------------|---|--------------------------------------|--|
| 4 | Understand the basics of magnetism | Magnetism | Explore properties of magnets, their uses | Magnet samples, iron filings, charts | Magnet experiments |
| 5 | Recognize the importance of the digestive system | Digestive system | Explore and discuss the process of digestion, organs involved | Digestive system models, charts | Project on the digestive system |
| 6 | Understand the importance of conservation | Conservation | Discuss conservation of resources, recycling, and sustainable practices | Conservation charts, recycling bins | Conservation project |
| 7 | Identify different forms of transportation | Transportation | Discuss different types of transportation and their impact on the environment | Transportation models, pictures | Project on forms of transportation |
| 8 | Recognize the importance of technological advancements | Technology | Discuss various technological advancements and their impact on society | Technology articles, videos | Presentation on technological advancements |
| 9 | Understand the basics of genetics and heredity | Genetics and heredity | Explore DNA, genes, and inheritance patterns | Genetic models, charts, videos | Genetics project |
| 10 | Review and prepare for National Grade 6 Assessment | Review and preparation | Review all key topics from the year, practice assessments | Review sheets, practice tests | Mock assessments, review activities |

