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|  | **GRADE 4** | **SCIENCE AND TECHNOLOGY** |  |  |  |

**WEEK 1: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify plants in the immediate environment.

2.Describe characteristics of plants as living things.

3.Appreciate the importance of plants.

**Key Inquiry Question(s):**

- How can we identify plants in our immediate environment?

- What characteristics make plants living things?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Field guides or books about local plants (optional)

- Notebooks and crayons or colored pencils for drawing

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a brief review of the previous lesson on living things. Ask students to identify other living things they know.

- Introduce the focus of today’s lesson: plants! Encourage students to share any plants they see around them.

**Lesson Development (25 minutes):**

**Step 1:** What are Plants?

- Discuss the definition of plants. Explain that plants need sunlight, water, and soil. Engage students by asking them where they see plants around the school or home.

- Key Concepts:

- Plants produce oxygen.

- Plants come in many shapes and sizes.

**Step 2:** Identifying Local Plants

- Take students for a short walk outside around the school (if feasible) or, if inside, show pictures of local plants.

- Encourage students to identify different plants and describe their characteristics (size, color, shape, etc.).

- Key Concept: Different plants have different features that help tell them apart.

**Step 3:** Characteristics of Living Things

- Gather the students and ask them to think about what makes a plant a living thing.

- Guide them to identify key characteristics: growth, reproduction, response to the environment, and need for nutrients.

- Key Concept: Plants can grow and change over time, just like other living things.

**Step 4:** The Importance of Plants

- Discuss why plants are important, touching on topics like providing oxygen, food for animals and humans, and habitats.

- Engage students in a conversation about any plants they love and why they think they're important.

**Conclusion (5 minutes):**

- Summarize the key points covered in the lesson: what plants are, how we can identify them, their characteristics as living things, and their importance.

- Conduct a quick interactive recap. For instance, have students participate in a “plant appreciation circle” where they each share one thing they learned or love about plants.

- Preview the next session: "What do plants need to grow?"

**Extended Activities:**

- Plant Journal: Have students start a plant journal where they can draw and write about different plants they see in their neighborhood over the coming week.

- Plant Mini-Research Project: Assign students to choose a local plant and research it at home. They can come back to share interesting facts, uses, or care for that plant in the next class.

- Create a Plant Poster: Students can create a poster featuring a plant, including its name, picture, and key facts learned during the lesson.

**Teacher Self-Evaluation:**

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**WEEK 1: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Identify plants in the immediate environment.

2.Describe characteristics of plants as living things.

3.Appreciate the importance of plants.

**Key Inquiry Questions:**

- What plants can we find in our immediate environment?

- What are the characteristics of plants that make them living things?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Visual aids (pictures of different plants)

- Plant samples (if available) or images

- Chart paper and markers

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a brief review of the previous lesson on living things.

- Ask students what they remember about plants, guiding them to share their thoughts.

- Introduce the key inquiry questions and tell students they will be exploring the plants around them and learning about their characteristics.

**Lesson Development (25 minutes):**

**Step 1:** Identifying Plants

- Guide students outside (if feasible) or look at images of local plants.

- Ask students to identify different plants around them, discussing their names and common characteristics.

- Record each identified plant on the board.

**Step 2:** Introducing Plant Characteristics

- Explain the five key characteristics of plants:

1. Made of Cells: All plants are made of cells, just like humans and animals.

2. Grow and Develop: Plants grow over time from seeds to full-sized plants.

3. Photosynthesis: Plants use sunlight, carbon dioxide, and water to make their own food.

4. Reproduce: Plants can grow from seeds or cuttings, allowing them to have offspring.

5. Respond to the Environment: Plants can bend towards sunlight or close their leaves when touched.

- Use visuals or a chart to illustrate these characteristics.

**Step 3:** Group Activity – Plant Hunt

- Organize the class into small groups and give them a checklist of plant characteristics.

- Let them find one or two plants (or refer to the images) and see which characteristics they can observe.

**Step 4:** Importance of Plants

- Discuss why plants are important to humans and the environment: they provide oxygen, food, and habitat for animals.

- Engage students with a brief discussion on how they use plants in their daily lives, encouraging sharing of personal examples.

**Conclusion (5 minutes):**

- Summarize key points about the characteristics of plants and their importance.

- Conduct a quick quiz with hands raised to answer questions about what they learned.

- Preview the next lesson about plant life cycles, encouraging students to think about the different stages plants go through.

**Extended Activities:**

- Plant Journal: Encourage students to keep a journal where they draw and describe a plant they find at home or in their neighborhood throughout the week.

- Plant Research Project: Assign students to research a specific plant (e.g., a flower, tree, or vegetable) and present their findings in a creative way (e.g., poster, slide show).

- Art Integration: Have students create a collage of plants using pictures from magazines or drawings and label the characteristics they’ve learned.

**Teacher Self-Evaluation:**

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**WEEK 1: LESSON 3**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Name external parts of a plant

2.Draw a plant and label its external parts

3. Appreciate the importance of plants

**Key Inquiry Questions:**

- What are the external parts of a plant?

- How can we draw and label a plant?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures of various plants

- Drawing paper and colored pencils

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson about the role of plants in our environment.

- Engage students in a quick discussion: "What do you remember about plants?"

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Plant Parts

- Show students pictures of different plants.

- Ask the students to identify any parts they recognize, guiding them to the main external parts: roots, stem, leaves, flowers, and fruit.

- Write the names of these parts on the board and explain their basic functions (e.g., roots anchor the plant and absorb water).

**Step 2:** Drawing Plants

- Provide students with drawing paper and colored pencils.

- Instruct them to draw a simple plant showing the external parts discussed (roots, stem, leaves, flowers, and fruit).

- Encourage creativity while ensuring they focus on the basic shapes of each part.

**Step 3:** Labeling the Drawing

- Have students label the parts of their drawn plant using the terms from the board.

- Walk around the classroom to provide assistance and feedback as they label.

**Step 4:** Importance of Plants

- Discuss with students why plants are important for life on Earth (e.g., they produce oxygen, provide food, and support wildlife).

- Engage students in sharing examples of how they use plants in their daily lives (e.g., in food, medicine, and clothing).

**Conclusion (5 minutes):**

- Summarize the key points: the external parts of a plant, their functions, how to draw and label a plant, and the importance of plants in our ecosystem.

- Conduct a brief interactive activity: Have students pair up and share their drawings with each other, explaining the parts and their functions.

- Preview the next session by asking students: "What do you think happens inside a plant?"

**Extended Activities:**

- Plant Observation Journal: Encourage students to keep a journal at home where they observe a plant over time, drawing and writing about any changes they notice.

- Class Garden Project: If feasible, start a small class garden where students can plant seeds and observe the growth of plants, discussing the different parts as they grow.

- Craft Project: Create a 3D model of a plant using recyclable materials to represent each part specified in the lesson.

**Teacher Self-Evaluation:**

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**WEEK 1: LESSON 4**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Name external parts of a plant.

2.Draw a plant and label its external parts.

3. Appreciate the importance of plants.

**Key Inquiry Questions:**

- What are the external parts of a plant?

- How do we draw and label a plant?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Worksheets with plant diagrams

- Art supplies (colored pencils, markers, paper)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of previous lessons focused on living things. Ask students questions like, "What makes something a living thing?" and "What are some examples of living things?"

- Introduce the importance of plants, emphasizing how they are essential for life on Earth (e.g., oxygen production, food source).

**Lesson Development (25 minutes):**

**Step 1:** Identify External Parts of a Plant

- Discuss the main external parts of a plant (roots, stems, leaves, flowers). Use images or real plants to point out these parts.

- Ask each student to share something they know about one part of a plant.

**Step 2:** Drawing a Plant

- Provide students with a blank piece of paper and instruct them to draw a plant.

- Encourage creativity but remind them to include the main parts: roots, stem, leaves, and flower.

**Step 3:** Labeling the Plant

- After completing their drawings, guide students on how to label their drawings. Provide a sample on the board for them to reference.

- Remind them to write the names of the parts clearly and legibly.

**Step 4:** Discuss the Importance of Plants

- Have a discussion on why plants are essential to our environment. Questions can include:

- "How do plants help us?"

- "What would happen if there were no plants?"

- Highlight their role in feeding animals and humans, and in providing oxygen.

**Conclusion (5 minutes):**

- Summarize the lesson's key points: the external parts of a plant and their importance.

- Conduct a brief interactive activity, such as a plant part matching game or a quick quiz to reinforce learning.

- Briefly preview the next session’s topics, such as how plants grow and the life cycle of plants, inviting students to think about plants they see in their daily lives.

**Extended Activities:**

- Plant Observation Journal: Encourage students to start a plant observation journal, where they can draw and record observations of real plants they see outside or even at home.

- Create a Plant Story: Have students write a short story from the perspective of a plant, describing its life, experiences, and importance to the environment.

- Class Plant Project: Start a project where students can collectively grow a plant in the classroom, allowing them to observe its growth and understand the care it needs.

**Teacher Self-Evaluation:**

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**WEEK 2: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Outline the functions of external parts of a plant.

2. Use digital devices to draw, paint, and label external parts of a plant.

3.Appreciate the importance of plants.

**Key Inquiry Questions:**

- What are the functions of the external parts of a plant?

- How can we use digital devices to illustrate and label a plant?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Digital devices (tablets/computers) with drawing software

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a review of the previous lesson on plant biology. Ask students questions about what they remember (e.g., what makes a plant alive?).

- Present a visual aid (like a poster or a PowerPoint slide) showing various plants and their parts. Encourage students to observe the differences.

**Lesson Development (25 minutes):**

**Step 1:** Identifying Plant Parts

- Introduce the external parts of a plant (roots, stems, leaves, flowers).

- Discuss each part’s function using simple language (e.g., roots anchor the plant, stems support it, leaves make food, flowers help in reproduction).

**Step 2:** Group Discussion

- In small groups, have students discuss the importance of plants. Prompt them with questions such as, "Why do plants matter to us?" and "How do plants help our environment?"

- Each group will share one key point they discussed with the class to encourage collaborative learning.

**Step 3:** Digital Illustration

- Allow students to use digital devices to create drawings of a plant. Instruct them to label the external parts discussed (roots, stems, leaves, flowers).

- Circulate around the room to assist students and ensure they are identifying the parts correctly.

**Step 4:** Presentation and Sharing

- Ask students to present their digital drawings to the class, highlighting one function of each part and its importance.

- Encourage classmates to ask questions about the presentations to foster engagement.

**Conclusion (5 minutes):**

- Summarize the key points about the external parts of a plant and their functions.

- Reinforce the importance of plants in our environment by posing a fun question: “What would happen if we didn’t have plants?”

- Preview the next lesson: "Next time, we will learn about how plants grow and reproduce!"

**Extended Activities:**

- Plant Journal: Create a plant journal where students can record observations about plants they see in their environment over a week (e.g., a garden, park, or schoolyard).

- Art and Nature Project: Instruct students to collect leaves, flowers, and other plant parts (if appropriate) to create a collage or artwork. They can label the parts to reinforce learning.

- Plant Research Project: Assign students to research a specific plant species and present its parts, functions, and importance to class.

**Teacher Self-Evaluation:**

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**WEEK 2: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State ways of taking care of plants.

2.Cut and paste pictures of different plants in their books.

3.Appreciate the need to take care of plants.

**Key Inquiry Questions:**

- How can we take care of plants?

- What are different types of plants?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Pictures of various plants

- Art supplies (scissors, glue, colored markers/pens)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson by asking students to recall the basic needs of plants (light, water, soil, air).

- Guide students to read a short passage or view a chart that outlines the different types of plants and their needs. Encourage them to discuss these with their peers.

**Lesson Development (25 minutes):**

**Step 1:** Discussing Plant Care

- Introduce the topic by asking students what they think plants need to grow and stay healthy. List their ideas on the board.

- Key concepts: light, water, soil quality, pruning, pest control, and nutrients.

**Step 2:** Demonstrating How to Care for Plants

- Explain each way to take care of plants in more detail.

- Light: Explain the importance of sunlight for photosynthesis.

- Water: Discuss how much and how often to water plants.

- Soil: Talk about different types of soil and their drainage properties.

- Pruning and Pest Control:Explain how removing dead leaves helps a plant grow better and how to protect plants from pests.

**Step 3:** Activity - Cut and Paste

- Provide students with a selection of pictures of various plants. Ask them to choose at least three pictures that they like.

- Have students cut out the pictures and paste them into their science notebooks. Next to each picture, they should write one way to take care of the type of plant they chose.

**Step 4:** Group Sharing

- Allow students to work in pairs and share their pictures and plant care ideas. This will promote discussion and reinforce their understanding of the different plants and their care requirements.

**Conclusion (5 minutes):**

- Summarize the key points: the importance of sunlight, water, and soil in plant care.

- Conduct a brief interactive quiz where students can raise their hands to answer questions about what they learned about taking care of plants.

- Prepare students for the next lesson by teasing the topic of what happens when plants do not get proper care, such as wilting and disease.

**Extended Activities:**

- Plant Journal: Encourage students to create a plant journal where they observe and take notes on a plant’s growth over a few weeks. They can document care routines and changes they notice.

- Garden Project: If possible, organize a small class garden where students can practice taking care of live plants, applying the concepts learned about sunlight, water, and soil.

- Research Assignment: Have students research a specific plant type at home and present their findings to the class, focusing on how to care for it.

**Teacher Self-Evaluation:**

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**WEEK 2: LESSON 3**

**Strand:** Living Things and Their Environment

**Sub Strand:** Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State ways of taking care of plants.

2. Cut and paste pictures of different plants in their books.

3. Appreciate the need to take care of plants.

**Key Inquiry Question(s):**

- How can we take care of plants?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures of different plants

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson about plants and their parts.

- Ask students questions like, "What do plants need to grow?" and "Why do we need plants?"

- Introduce today's topic by explaining that we will learn how to take care of plants.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Plant Needs

- Explain the essential needs of plants: sunlight, water, air, and soil.

- Use visuals (pictures or a chart) to show each need.

- Discuss with students why each of these is important for plant health.

**Step 2:** Ways to Care for Plants

- List different ways to take care of plants, such as watering, providing sunlight, and using the right soil.

- Share some common mistakes people make when taking care of plants (overwatering, not enough sunlight, etc.).

- Encourage students to share their experiences with plants.

**Step 3:** Hands-On Activity - Plant Picture Collage

- Provide students with various images of plants.

- Ask them to cut out pictures of different plants and paste them into their science books as a reminder of the variety in the plant world.

**Step 4:** Discussing the Importance of Plants

- Facilitate a discussion on why we should appreciate and take care of plants, focusing on their role in our environment (oxygen production, habitat for animals, food source, etc.).

- Ask students how they can help take care of plants in their homes or communities.

**Conclusion (5 minutes):**

- Summarize the importance of taking care of plants.

- Review the specific ways discussed during the lesson.

- Conduct a brief interactive activity: have students share one way they will take care of a plant at home.

- Prepare students for the next session by giving a preview about plant reproduction or the role of plants in the ecosystem.

**Extended Activities:**

- Encourage students to start a small plant journal where they can record the growth of a plant they take care of at home.

- Have students create a poster on the benefits of plants and display them in the classroom or a common area.

- Organize a field trip to a local garden or botanical center to observe different types of plants and learn about their care.

**Teacher Self-Evaluation:**

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**WEEK 2: LESSON 4**

**Strand:** Living Things and Their Environment

Sub Strand: Plants

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State the importance of plants.

2.Watch video clips on the importance of plants.

3.Appreciate the importance of plants.

**Key Inquiry Question(s):**

- What is the importance of plants?

- How do plants impact our daily lives?

**Learning Resources:**

- Grade 4 Science and Technology curriculum design

- Video clips highlighting the significance of plants

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on living things and their habitats.

- Encourage learners to share what they remember about plants and their roles in the environment.

- Introduce today’s lesson by explaining that they will explore why plants are important to us and the environment.

**Lesson Development (25 minutes):**

**Step 1:** What are Plants?

- Discuss what makes a plant a plant. Highlight characteristics such as leaves, stems, roots, and flowers.

- Engage students by asking them to name different types of plants and where they see them in their daily lives.

**Step 2:** The Benefits of Plants

- Present the key benefits of plants, such as:

- Producing oxygen

- Providing food

- Offering shelter for animals

- Watch a short video clip showing how plants contribute to the environment and support life.

**Step 3:** Plants in Our Lives

- Discuss how plants impact our daily lives (e.g., fruits, vegetables, medicine).

- Encourage students to think about their favorite foods that come from plants and share them with the class.

**Step 4:** Appreciating Plants

- Guide a conversation about ways to take care of plants (planting trees, gardening).

- Emphasize the importance of protecting plants and the environment.

**Conclusion (5 minutes):**

- Summarize the key points covered, reinforcing the importance of plants in providing oxygen, food, and habitats.

- Conduct an interactive activity: ask students to draw their favorite plant and write one reason why it is important.

- Prepare learners for the next session by hinting at exploring animal life and their roles in the ecosystem. Pose questions for them to consider: "What do animals need from plants?"

**Extended Activities:**

- Plant Journal: Encourage students to keep a weekly journal about different plants they observe in their neighborhood or home. They can draw pictures, take notes, and share their observations in class.

- Class Garden: Start a small garden project where students can help grow plants. This hands-on experience will deepen their understanding of plant care and development.

- Research Project: Assign a simple research project where students choose a specific plant to learn about (e.g., how it grows, its habitats, and its uses).

**Teacher Self-Evaluation:**

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**WEEK 3: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify animals found in the immediate environment

2.Cut and paste pictures of animals.

3.Appreciate the need to take care of animals.

**Key Inquiry Questions:**

- What animals can we find in our immediate environment?

- How can we care for the animals around us?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures of various local animals (printouts or magazines)

- Scissors, glue, and construction paper for the cut-and-paste activity

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing what students learned in the previous lesson about living things.

- Ask students if they remember any specific animals they discussed last time.

- Guide learners to read selected pages from the learning resources, focusing on local animals, and discuss why it's important to know about them.

**Lesson Development (25 minutes):**

**Step 1:** Brainstorming

- Lead a class discussion to name animals that are found in the students' immediate environment (parks, neighborhoods, etc.).

- Write the names of the animals on the board for everyone to see.

**Step 2:** Picture Identification

- Distribute pictures of animals from local resources.

- Ask students to identify these animals and match them with names on the board.

- Discuss each animal briefly, focusing on its habitat and any special features.

**Step 3:** Cut and Paste Activity

- Provide students with construction paper, scissors, and glue.

- Instruct them to choose 3 to 5 pictures of animals they learned about, cut them out, and paste them onto their paper.

- Encourage students to label each animal with its name.

**Step 4:** Discuss Care for Animals

- Engage students in a discussion about why it is important to take care of animals.

- Ask questions like: "What can we do to help animals in our area?" and "Why should we care for them?"

**Conclusion (5 minutes):**

- Review the key points from the lesson: types of animals found locally, the activity of cutting and pasting, and the importance of caring for animals.

- Conduct a brief interactive activity: Have students share one animal they learned about and one way they can help take care of them.

- Preview the next lesson by asking, "What do you think we will learn about the habitats of these animals?" or "How do animals and plants depend on each other?"

**Extended Activities:**

- Animal Habitat Diorama: Students can create a small diorama of a local animal’s habitat using shoeboxes and craft supplies.

- Animal Observation Journal: Encourage students to observe and record animals they see in their own backyards or during walks, noting the time and environment, and discussing their findings in class later.

- Animal Care Project: Start a classroom project where each student chooses a local animal to research and develops an action plan for how to help care for it.

**Teacher Self-Evaluation:**

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**WEEK 3: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Identify animals found in the immediate environment

2. Cut and paste pictures of animals

3.Appreciate the need to take care for animals

**Key Inquiry Question(s):**

- What animals can we find in our immediate environment?

- How can we recognize and take care of these animals?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures of various animals (magazines, printouts, etc.)

- Glue, scissors, and construction paper

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson about living things and how we categorize them.

- Ask students to name some animals they see around them. Write their responses on the board.

- Introduce the focus of today’s lesson: identifying and appreciating animals in our environment.

**Lesson Development (25 minutes):**

**Step 1:** Exploring Local Animals

- Begin by discussing different types of animals (mammals, birds, reptiles, etc.) that might live nearby.

- Show pictures of local animals and ask students to identify them. Discuss their characteristics.

**Step 2:** Picture Activity

- Distribute pictures of animals (or allow students to use magazines).

- Ask students to cut out pictures of animals they can find in their area.

- Encourage them to pick a variety of animals.

**Step 3:** Animal Collage

- Provide construction paper and glue.

- Instruct students to paste their cut-out animals onto the paper, creating a collage of local animals.

**Step 4:** Discussing Animal Care

- Lead a discussion on why it is important to take care of animals and their habitats.

- Ask students to share ways they can help protect local animals.

**Conclusion (5 minutes):**

- Summarize key points: the variety of animals in our environment, their characteristics, and the importance of caring for them.

- Conduct a brief interactive activity: Have students share one animal from their collage and one way to take care of that animal.

- Preview the next session where they will learn about animal habitats and food chains.

**Extended Activities:**

- Encourage students to keep a nature journal where they can draw or write about animals they see during walks.

- Organize a "nature walk" where students can observe and record animals in their environment.

- Plan a class project where students can research an endangered local animal and present why it needs protection.

**Teacher Self-Evaluation:**

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**WEEK 3: LESSON 3**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Identify characteristics of animals as living things.

2.Watch video clips of characteristics of animals as living things.

3.Appreciate the need to take care of animals.

**Key Inquiry Questions:**

- What are the characteristics of animals as living things?

- Why is it important to take care of animals?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Short video clips showcasing different animals and their characteristics.

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson about living things, highlighting the differences between plants and animals.

- Ask students to share any animals they learned about in the last lesson.

- Discuss key concepts related to living things and introduce the focus on animals for today’s lesson.

**Lesson Development (25 minutes):**

**Step 1:** Defining Animals

- Explain what animals are and how they are classified as living things.

- Emphasize that animals breathe, grow, reproduce, move, and respond to their environment.

**Step 2:** Five Characteristics of Animals

- List and explain five key characteristics:

1. Movement: Animals can move on their own, unlike plants.

2. Breathing: Animals breathe air (or water).

3. Eating: Animals need to eat food to get energy.

4. Growth: Animals grow and develop over time.

5. Reproduction: Animals can make more animals (babies).

- Provide examples to illustrate each characteristic.

**Step 3:** Video Clips

- Show a series of short video clips that demonstrate the characteristics identified.

- Pause between clips for discussions, asking students to identify what characteristic is being shown.

**Step 4:** Discussion on Care for Animals

- Lead a discussion on how caring for animals is important.

- Encourage students to think of ways they can take care of animals in their home, community, and environment.

**Conclusion (5 minutes):**

- Summarize the key points covered: the five characteristics of animals and the importance of taking care of them.

- Conduct a brief interactive activity such as a “characteristics charades” where students can act out one of the characteristics learned today.

- Preview the next lesson, which will focus on different animal habitats.

**Extended Activities:**

- Animal Characteristic Poster: Have students create a poster of an animal, highlighting its characteristics and how it lives in its environment.

- Caring for Animals Project: Ask students to write a short paragraph about why they believe animal care is important and ways they can help animals in their community.

**Teacher Self-Evaluation:**

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**WEEK 3: LESSON 4**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify characteristics of animals as living things.

2. Watch video clips on the characteristics of animals as living things.

3. Appreciate the need to take care of animals.

**Key Inquiry Question(s):**

- What characteristics do animals have that classify them as living things?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Video clips on animal characteristics

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson about living things. Ask students to list examples of living things and discuss what makes them alive.

- Guide the class to read relevant sections from the learning resources, highlighting the characteristics that distinguish animals as living beings.

**Lesson Development (25 minutes):**

**Step 1:** Exploration of Characteristics

- Introduce the lesson with a question: “What makes an animal different from a rock or a tree?”

- Discuss characteristics such as movement, growth, reproduction, and response to stimuli.

- Engage students in a short brainstorming session by asking them to name different animals and how these characteristics apply to them.

**Step 2:** Video Clips

- Show video clips that highlight the characteristics of animals as living things.

- After the video, facilitate a discussion by asking students what new things they learned from the clips and how these animals exhibited the discussed characteristics.

**Step 3:** Classification Activity

- Divide students into small groups and provide them with pictures of various animals.

- Ask each group to classify the animals based on the characteristics discussed (e.g., does it move, does it reproduce?).

**Step 4:** Importance of Care

- Discuss why it is important to care for animals and what students can do to help.

- Encourage students to think about real-world applications, such as adopting pets, supporting animal shelters, and respecting wildlife.

**Conclusion (5 minutes):**

- Summarize the key points learned about the characteristics of animals and their importance in our environment.

- Conduct a quick interactive activity where students can share one fact they learned or one action they can take to care for animals.

- Preview the next session, which will focus on the habitats of various animals and how those habitats support their needs.

**Extended Activities:**

- Animal Observation Journal: Encourage students to keep a journal where they can observe and record details about an animal they see regularly (e.g., a pet, birds in the backyard) and note its characteristics.

- Research Project: Assign students to research a specific animal and create a poster showcasing its characteristics, habitat, and care needs. They can present their findings to the class.

- Field Trip: Organize a field trip to a local zoo or wildlife sanctuary to observe animals in their habitats and learn more about their care.

**Teacher Self-Evaluation:**

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**WEEK 4: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Outline characteristics of vertebrates.

2.Take a walk in the school compound and take photographs of vertebrates.

3.Appreciate the need to take care of animals.

**Key Inquiry Questions:**

- What are the characteristics of vertebrates?

- Which vertebrates can we find in our school compound?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Cameras or tablets for taking photographs (optional)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on living things and their importance in our environment.

- Introduce the topic of vertebrates by asking students what they think vertebrates are and listing some examples they might already know.

**Lesson Development (25 minutes):**

**Step 1:** What Are Vertebrates?

- Introduce the concept of vertebrates: Animals with a backbone or spine.

- Discuss the different types of vertebrates: mammals, birds, reptiles, amphibians, and fish.

- Highlight unique characteristics of each type (e.g., breathing methods, skin features).

**Step 2:** Characteristics of Vertebrates

- Engage students in an interactive discussion.

- List key characteristics: presence of a backbone, brain enclosed in a skull, and various body structures.

- Encourage students to think of examples from each group, such as cats (mammals) or frogs (amphibians).

**Step 3:** Exploring the School Compound

- Explain the activity: a walk around the school to look for vertebrates.

- Discuss safety and respect for the animals and their habitats.

- Allow students to take photographs of any vertebrates they find.

**Step 4:** Reflection on Care for Animals

- After the walk, gather students to talk about what they’ve discovered.

- Discuss why it's important to take care of animals and their habitats.

- Encourage students to share how they can help protect the animals they saw.

**Conclusion (5 minutes):**

- Summarize the key points covered: definition of vertebrates, their characteristics, and the importance of caring for them.

- Conduct a brief interactive activity, such as a quick quiz or drawing session where students draw their favorite vertebrate and discuss it.

- Prepare learners for the next session by previewing upcoming topics, such as the environment and ecosystems.

**Extended Activities:**

- Animal Profiles: Have students create a profile for a vertebrate they encountered. This can include pictures, habitats, and interesting facts.

- Vertebrate Research Project: Encourage students to research a specific type of vertebrate at home and present their findings to the class.

- Field Journal: Students can keep a journal of animals they observe over a week, sketching the vertebrates and noting their characteristics.

**Teacher Self-Evaluation:**

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**WEEK 4: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Outline characteristics of vertebrates.

2.Cut and paste pictures of vertebrates in their books.

3. Appreciate the need to take care of animals.

**Key Inquiry Question(s):**

- What are the characteristics of vertebrates?

- How can we identify different vertebrates?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures of vertebrates (magazines or printouts)

- Construction paper or notebooks

- Glue and scissors

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on animals.

- Discuss the difference between vertebrates and invertebrates to set the foundation for today’s lesson.

- Guide the students to read a short passage or watch a short video clip about vertebrates and their characteristics, encouraging them to share their thoughts.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Vertebrates

- Briefly explain what vertebrates are (animals with backbones).

- Discuss the five main types of vertebrates: mammals, birds, reptiles, amphibians, and fish.

- Ask students if they can name examples of each type.

**Step 2:** Characteristics of Vertebrates

- Outline the common characteristics of vertebrates, such as:

- They have a backbone.

- They have a nervous system.

- Most of them breathe oxygen.

- They can be warm-blooded (mammals and birds) or cold-blooded (reptiles, amphibians, fish).

- Engage students by asking them to think of how each characteristic helps the animals survive in their environment.

**Step 3:** Activity - Cutting and Pasting

- Provide students with a collection of pictures of various vertebrates.

- Ask them to select pictures of vertebrates and cut them out.

- In their notebooks or on construction paper, have them paste the pictures they chose.

**Step 4:** Sharing and Class Discussion

- Invite students to share the pictures they pasted and the names of the animals.

- Discuss why it is important to take care of these animals and their habitats.

- Highlight ways they can help protect animals in their communities.

**Conclusion (5 minutes):**

- Summarize the key points discussed, focusing on the characteristics of vertebrates.

- Conduct a brief interactive activity, such as a true/false quiz on vertebrate characteristics.

- Preview the next lesson about animal habitats and ecosystems, encouraging students to think about the importance of animal homes.

**Extended Activities:**

- Have students create a mini-poster about their favorite vertebrate, including its characteristics and habitat.

- Organize a class pet day where students can bring in items related to their favorite vertebrate (e.g., stuffed animals, pictures, books).

- Plan a field trip to a local zoo or aquarium to explore vertebrates in real life.

**Teacher Self-Evaluation:**

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**WEEK 4: LESSON 3**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals – Invertebrates

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State characteristics of invertebrates.

2.Draw invertebrates in their books.

3. Appreciate the need to take care of animals.

**Key Inquiry Question(s):**

- What are invertebrates?

- How can we identify different types of invertebrates?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures and illustrations of invertebrates

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a review of the previous lesson on living things, focusing on the distinction between vertebrates and invertebrates.

- Ask students open-ended questions to elicit prior knowledge, e.g., "Can anyone tell me what they remember about animals without a backbone?"

- Guide students to read the relevant section from the learning resources aloud as a class. Discuss any challenging vocabulary to ensure understanding.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Invertebrates

- Explain what invertebrates are (animals without a backbone) and share examples like jellyfish, spiders, and worms.

- Create a T-chart on the board with "Invertebrates" on one side and "Characteristics" on the other, listing key characteristics (e.g., no backbone, diverse habitats, etc.).

**Step 2:** Group Activity

- Divide students into small groups and provide them with pictures of various invertebrates.

- Have each group identify and discuss the characteristics of their assigned invertebrate, using the T-chart for guidance.

- Groups will then present their findings to the class, focusing on how to recognize their invertebrate and its unique features.

**Step 3:** Drawing Invertebrates

- Instruct students to open their books and draw one or two of the invertebrates discussed.

- Encourage them to label the drawings with key characteristics identified in the lesson.

**Step 4:** Discussing Animal Care

- Lead a discussion on the importance of taking care of animals, especially those in our environment.

- Ask questions like, "Why is it important to take care of invertebrates?" and "What can we do to help?"

**Conclusion (5 minutes):**

- Summarize the key points of invertebrates and their characteristics.

- Conduct a brief interactive quiz where students shout out characteristics or examples of invertebrates as reinforcement.

- Preview the next lesson, which will focus on the habitats of invertebrates, asking students to think about where they might find them in nature.

**Extended Activities:**

- Nature Walk: Organize a nature walk to look for different invertebrates in their local environment. Students can observe and record their findings in a nature journal.

- Invertebrate Poster Project: Have students create a poster of an invertebrate of their choice, including its habitat, diet, and why it is important to care for it.

- Research Assignment: Assign students to research a specific invertebrate and prepare a short presentation to share with the class during the next lesson.

**Teacher Self-Evaluation:**

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**WEEK 4: LESSON 4**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.State characteristics of invertebrates.

2. Watch video clips of vertebrates.

3. Appreciate the need to take care of animals.

**Key Inquiry Questions:**

- What are the characteristics of invertebrates?

- What can we learn by watching video clips of vertebrates?

**Learning Resources:**

- Grade 4 science and technology curriculum design.

- Video clips on vertebrates.

- Internet access for research (if available).

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson by asking students to recall what they learned about animals.

- Guide learners to read selected sections from the learning resources, focusing on defining invertebrates and their characteristics.

**Lesson Development (25 minutes):**

**Step 1:** Discuss Invertebrates

- Introduce the topic of invertebrates and explain that they are animals without backbones.

- Ask students what they think some examples of invertebrates are (e.g., jellyfish, spiders, worms).

- Show images of various invertebrates and have a brief discussion about their features.

**Step 2:** List Characteristics

- As a class, list the characteristics of invertebrates on the board (e.g., soft bodies, ability to live in various environments, lack of a spinal column).

- Encourage students to share additional facts they know about these animals.

**Step 3:** Watch Video Clips of Vertebrates

- Provide students with video clips showcasing various vertebrates (e.g., fish, birds, mammals).

- Encourage students to pay attention to how these animals differ from invertebrates.

**Step 4:** Class Discussion

- Facilitate a discussion comparing and contrasting the characteristics of invertebrates and vertebrates.

- Ask students how these characteristics might affect where each type of animal can live and what they look like.

**Conclusion (5 minutes):**

- Summarize the key points discussed during the lesson: the definition of invertebrates, their characteristics, and the differences with vertebrates.

- Conduct a brief interactive activity: Have students choose one invertebrate and one vertebrate they learned about and share one interesting fact about each with a partner.

- Preview the next session: “In our next class, we’ll learn about the habitats of these animals and why it's important to take care of them.”

**Extended Activities:**

- Create an art project where students draw an invertebrate and write a few sentences about its habitat and characteristics.

- Organize a “class pet” discussion where students can suggest ways to care for different animals, focusing on what we can do to protect both vertebrates and invertebrates in our environment.

- Conduct simple research at home on a specific invertebrate or vertebrate and prepare a short presentation for the class.

**Teacher Self-Evaluation:**

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**WEEK 5: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the importance of taking care of animals

2.Watch video clips on the difference between vertebrates and invertebrates

3.Appreciate the need to take care of animals

**Key Inquiry Question(s):**

- What is the importance of taking care of animals?

- How do we differentiate between vertebrates and invertebrates?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Video clips about vertebrates and invertebrates

- Picture cards of different animals

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson about living things. Ask students what they remember about different types of animals and their habitats.

- Guide learners to read and discuss relevant passages from the curriculum, focusing on the importance of caring for animals.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Animals

- Introduce the concept of animals as living beings. Ask the students to raise their hands if they have pets and what they do to take care of them.

- Discuss the concept of animal responsibilities, highlighting the importance of well-being and safety for animals.

**Step 2:** What Are Vertebrates?

- Watch a 3-minute video clip explaining vertebrates.

- After the video, define vertebrates as animals with backbones.

- Have students name some examples (e.g., dogs, cats, birds). Show picture cards of vertebrates to reinforce learning.

**Step 3:** What Are Invertebrates?

- Watch a 3-minute video clip about invertebrates.

- Define invertebrates as animals without backbones.

- Encourage students to identify examples (e.g., jellyfish, worms, insects) and show corresponding picture cards, discussing their habitats and roles in the ecosystem.

**Step 4:** Comparing Vertebrates and Invertebrates

- Create a simple Venn diagram on the board and ask students to help fill in the details, comparing the characteristics of vertebrates and invertebrates based on what they learned.

- Discuss as a class why it is crucial to protect both types of animals and how they both contribute to our environment.

**Conclusion (5 minutes):**

- Summarize key points about the importance of caring for animals and distinguishing between vertebrates and invertebrates.

- Conduct a brief interactive quiz game, asking students to identify whether a given animal is a vertebrate or invertebrate.

- Preview the next lesson on animal habitats and how their environments support their lives.

**Extended Activities:**

- Animal Report Project: Students choose either a vertebrate or an invertebrate animal to research. They can create a poster or a digital presentation to share with the class next week.

- Classroom Pet Care Day: Organize a classroom visit to a local animal shelter or invite a guest speaker who can share about animal care.

-Nature Walk: Plan a nature walk around the school to observe living animals and their environments, encouraging students to take notes on what they see.

**Teacher Self-Evaluation:**

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**WEEK 5: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Animals

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Identify the importance of taking care of animals.

2. Watch video clips on the difference between vertebrates and invertebrates.

3.Appreciate the need to take care of animals.

**Key Inquiry Questions:**

- Why is it important to take care of animals?

- What are the differences between vertebrates and invertebrates?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Video clips about vertebrates and invertebrates

- Worksheets for group discussions and note-taking

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the key concepts from the previous lesson about living things.

- Engage students in a brief discussion about the role of animals in the environment and why we should care for them.

**Lesson Development (25 minutes):**

**Step 1:** Discuss the Importance of Animals

- Lead a class discussion on why animals are important to humans and the ecosystem.

- Key points to discuss include: animals provide food, help with pollination, and contribute to biodiversity.

**Step 2:** Introduce Vertebrates vs. Invertebrates

- Show a video clip that explains the differences between vertebrates (animals with backbones) and invertebrates (animals without backbones).

- Pause the video at key points to ask questions and facilitate discussion.

**Step 3:** Group Activity - Classify Animals

- Provide students with a mix of animal pictures and ask them to classify them into vertebrates and invertebrates.

- Encourage students to discuss their reasoning in small groups.

**Step 4:** Discuss Animal Care

- Talk about the importance of caring for animals and what actions we can take to help them (e.g., proper pet care, supporting wildlife conservation).

- Encourage students to share ideas on how they personally can contribute to animal welfare.

**Conclusion (5 minutes):**

- Summarize the key points discussed in the lesson, emphasizing the importance of taking care of animals and understanding vertebrates and invertebrates.

- Conduct a brief interactive activity, such as a "thumbs up/thumbs down" game where students can indicate whether they agree with statements about animal care.

- Provide a preview of the next session, which will dive deeper into specific vertebrate classes (mammals, birds, reptiles, etc.).

**Extended Activities:**

- Animal Research Project: Students can pick one vertebrate and one invertebrate animal to research at home and present their findings to the class.

- Field Trip: Plan a visit to a local animal shelter or farm to learn more about taking care of animals and observe different species.

- Creative Writing: Have students write a short story or poem from the perspective of an animal about its needs and the importance of caring for animals.

**Teacher Self-Evaluation:**

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**WEEK 5: LESSON 3**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify parts of the human digestive system

2. Draw and label the human digestive system

3.Appreciate the importance of the human digestive system

**Key Inquiry Questions:**

- What are the different parts of the human digestive system?

- How do these parts work together to digest food?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Visual aids (diagrams of the digestive system)

- Colored pencils and paper for drawing

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson by reviewing key points from the previous lesson about living things and their needs.

- Introduce the digestive system as a key part of the human body that helps process food.

- Ask students what they already know about digestion to spark interest and engagement.

**Lesson Development (25 minutes):**

**Step 1:** What is the Digestive System?

- Explain that the digestive system breaks down the food we eat into nutrients our bodies can use. Use simple vocabulary to ensure understanding.

- Show a large, labeled diagram of the human digestive system and point out its main components (mouth, esophagus, stomach, small intestine, large intestine, rectum, and anus).

**Step 2:** Identify the Parts

- Discuss each part of the digestive system in detail:

- Mouth (where digestion begins)

- Esophagus (the tube that carries food to the stomach)

- Stomach (where food is mixed with digestive juices)

- Small Intestine (where most nutrients are absorbed)

- Large Intestine (where water is absorbed and waste is formed)

- Encourage questions and provide clarifications as needed.

**Step 3:** Draw and Label

- Provide students with paper and colored pencils.

- Instruct them to draw the digestive system from memory and label each part.

- Walk around to assist students, encouraging them to use their own words to describe the function of each part while labeling.

**Step 4:** Importance of the Digestive System

- Discuss why the digestive system is crucial for health—enabling our bodies to gain energy and nutrients, and how waste removal is essential for well-being.

- Engage students by asking them to share why they think digestion is important.

**Conclusion (5 minutes):**

- Summarize the key points learned during the lesson: the parts of the digestive system, their functions, and the importance of digestion.

- Conduct a brief interactive activity—"Quick Quiz," where students can raise their hands to answer simple questions about the parts and functions discussed.

- Preview the next lesson’s topic: “Nutrition and Healthy Eating” to connect the digestive system's function with how we nourish our bodies.

**Extended Activities:**

- Create a booklet: Have students create a small booklet titled “My Digestive System” featuring drawings, labels, and fun facts about digestion.

- Home Connection: Encourage students to observe their own eating habits at home, identify their favorite foods, and discuss how those foods may be digested in their next class.

- Science Fair Project: Students can research a specific part of the digestive system, create a poster, and present it in class.

**Teacher Self-Evaluation:**

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**WEEK 5: LESSON 4**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify parts of the human digestive system.

2.Draw and label the human digestive system.

3. Appreciate the importance of the human digestive system.

**Key Inquiry Questions:**

- What are the parts of the human digestive system?

- How do the parts work together to digest food?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Diagrams of the human digestive system

- Markers and drawing paper

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on the basic function of the digestive system.

- Engage students in a brief discussion: "Can anyone tell me what happens to our food after we eat it?"

- Introduce the topic of the human digestive system and explain that today we will learn more about its parts and functions.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the Parts

- Present visuals of the human digestive system.

- Explain each part (mouth, esophagus, stomach, small intestine, large intestine, rectum, anus) using simple language and examples.

- Ask students to chant the names of the parts together for reinforcement.

**Step 2:** Group Activity - Naming Parts

- Divide the class into small groups.

- Provide each group with a blank outline of the human digestive system.

- Instruct students to work together to label the different parts of the digestive system using markers.

- Walk around to assist groups and ask questions to encourage participation.

**Step 3:** Drawing and Labeling

- After the group labeling activity, ask students to create their individual drawings of the human digestive system on their own paper.

- Remind them to include and label all parts discussed.

**Step 4:** Discussion on Importance

- Gather the class back together and discuss why the human digestive system is important.

- Questions to prompt discussion: "Why do we need to digest food?" "What happens if our digestive system doesn't work correctly?"

- Allow students to share their thoughts and examples.

**Conclusion (5 minutes):**

- Summarize the key points: the parts of the digestive system and its importance in our daily lives.

- Conduct a brief interactive activity where students can ask questions or share interesting facts about digestion.

- Prepare learners for the next session by hinting at what happens to the food after it leaves the stomach.

**Extended Activities:**

- Digestion Diary: Have students keep a diary of what they eat for a week and illustrate how food travels through the digestive system.

- Creative Storytelling: Invite students to write a short story from the perspective of food traveling through the digestive system.

- Guest Speaker: Arrange for a local nutritionist or health professional to speak about healthy eating and digestive health.

**Teacher Self-Evaluation:**

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**WEEK 6: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the parts of the human digestive system.

2.Watch video clips to visualize the digestive process.

3.Appreciate the importance of the human digestive system.

**Key Inquiry Questions:**

- What are the parts of the human digestive system?

- How does the digestive system work?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Video clips on the human digestive system

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson on living things and their environments.

- Guide learners to read a brief overview of the human digestive system from the learning resources and encourage them to discuss what they already know.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the Digestive System

- Explain what the digestive system is and its role in the body.

- Use a diagram of the digestive system to introduce the different parts: mouth, esophagus, stomach, small intestine, large intestine, and anus.

- Ask students to repeat the names of the parts to reinforce learning.

**Step 2:** Watching Video Clips

- Show selected video clips that visually represent the digestive process in action.

- Pause the video at key points to explain what is happening in each part of the digestive system.

- Engage students by asking questions about what they see in the video.

**Step 3:** Discussion and Interaction

- After the video, discuss why each part of the digestive system is important.

- Encourage students to think about what happens if one part does not work properly by asking questions like, "What do you think would happen if we didn’t have a stomach?"

**Step 4:** Activity - Matching Game

- Hand out a matching game where students pair names of digestive system parts with their functions.

- Allow students to work in pairs to discuss and complete the game, which reinforces their understanding.

**Conclusion (5 minutes):**

- Summarize key points regarding the parts of the digestive system and their functions.

- Conduct a brief interactive activity, such as a quick quiz or a “thumbs up/thumbs down” to gauge understanding.

- Introduce what will be covered in the next lesson, such as the digestive process and how nutrients are absorbed.

**Extended Activities:**

- Encourage students to create a poster of the digestive system, labeling all parts and including a brief description of each part’s function.

- Organize a "Digestive System Day" where students can bring in a healthy snack that represents the nutrients their bodies need, discussing how those nutrients are processed.

**Teacher Self-Evaluation:**

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**WEEK 6: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State parts of the human digestive system.

2. Cut and paste pictures of parts of the human digestive system.

3. Appreciate the importance of the human digestive system.

**Key Inquiry Questions:**

- What are the parts of the human digestive system?

- Why is the human digestive system important?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures of the human digestive system

- Scissors and glue for cut and paste activity

- Whiteboard/markers for discussion

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on living things and their needs.

- Introduce the topic of the human digestive system. Ask students what they know about digestion and how food is processed in our bodies.

- Quickly go through the lesson objectives so everyone knows what to expect.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the Digestive System

- Show a simple diagram of the human digestive system.

- Explain the importance of digestion, using simple terms: “Digestion is how our bodies turn food into energy.”

- Ask students to name any parts they see in the diagram.

**Step 2:** Identifying the Parts

- Hand out printed pictures of the digestive system parts (e.g., mouth, esophagus, stomach, small intestine, large intestine, etc.).

- As a class, identify each part one by one.

- Students will repeat the names of the parts to reinforce learning.

**Step 3:** Cut and Paste Activity

- Provide each student with a blank sheet and cut-out pictures of the digestive system parts.

- Instruct students to cut out the pieces and paste them in the correct order on their sheets, labeling each part.

- Circulate the classroom, offering guidance and answering questions as they work.

**Step 4:** Discussion of Importance (Optional - time permitting)

- Discuss with the class why each part of the digestive system is important for our health.

- Encourage students to share what they learned about the role of each part.

**Conclusion (5 minutes):**

- Summarize what was learned about the parts of the human digestive system and its importance.

- Conduct a quick Q&A session where students can answer questions about what they created in their cut-and-paste activity.

- Preview the next lesson, which will explore how digestion affects our energy levels and nutrition.

**Extended Activities:**

- Create a “Digestive System Booklet”: Students can draw each part of the digestive system at home, along with a short description of its function.

- “Digestion Role Play”: In groups, have students act out the journey of food through their digestive system, including the different parts and what happens at each stage.

- “Digestion Journal”: Ask students to keep a journal for a week, recording what they eat daily and discussing how it is processed by the digestive system.

**Teacher Self-Evaluation:**

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**WEEK 6: LESSON 3**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Outline ways of maintaining a healthy digestive system.

2. Develop a plan for maintaining a healthy human digestive system.

3.Appreciate the importance of a healthy human digestive system.

**Key Inquiry Questions:**

- How can we maintain a healthy digestive system?

- What steps can we take to develop our own health plans?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Illustrated books on the human digestive system

- Informative videos about digestion

- Worksheets for creating a health plan

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson by reviewing the previous lesson on body systems.

- Ask students what they remember about the digestive system and its parts.

- Share the key concepts they will learn today, emphasizing how they can keep their digestive system healthy.

**Lesson Development (25 minutes):**

**Step 1:** Understanding the Digestive System

- Discuss the parts of the digestive system (mouth, esophagus, stomach, intestines) and their functions.

- Show videos or illustrations to visually represent how food moves through the system.

**Step 2:** Importance of a Healthy Digestive System

- Have a conversation about why a healthy digestive system is crucial for overall health (e.g., nutrients absorption, energy levels).

- Use a Venn diagram to compare healthy and unhealthy digestive habits with the class.

**Step 3:** Ways to Maintain a Healthy Digestive System

- Brainstorm and list ways to keep the digestive system healthy, such as eating fruits and vegetables, drinking water, and exercising.

- Introduce the concept of 'good' vs. 'bad' foods for digestion, using examples (e.g., yogurt vs. sugary snacks).

**Step 4:** Creating a Personal Digestive Health Plan

- Guide students to develop their own health plans with at least three ways they will maintain their digestive health.

- Provide a worksheet for them to write or draw their plans.

**Conclusion (5 minutes):**

- Summarize the key points: parts of the digestive system, its importance, and how to keep it healthy.

- Conduct a brief interactive activity, like a “Digestive Health Pledge” where students share one commitment they will follow.

- Preview the next session by telling them they'll learn about the types of nutrients that help the digestive system.

**Extended Activities:**

- Healthy Recipe Book: Students can gather family favorite healthy recipes and compile them into a class recipe book focusing on digestive health.

- Gardening Project: If feasible, start a small class garden where students can grow vegetables and herbs, learning about the benefits of home-grown food.

- Digestive System Models: Create a 3D model or poster of the digestive system using recycled materials, emphasizing healthy food pathways.

**Teacher Self-Evaluation:**

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**WEEK 6: LESSON 4**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Outline ways of maintaining a healthy digestive system.

2.Develop a plan for maintaining a healthy human digestive system.

3.Appreciate the importance of a healthy human digestive system.

**Key Inquiry Questions:**

- Why is it important to maintain a healthy digestive system?

- What can we do to keep our digestive system healthy?

**Learning Resources:**

- Grade 4 Science and Technology curriculum design

- Visual aids (diagrams of the digestive system)

- Healthy food charts

- Activity sheets

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a short review of the previous lesson on living things and their environments.

- Introduce the topic of the digestive system by asking students what they know about it.

- Discuss the importance of digestion in our body’s ability to use food.

**Lesson Development (25 minutes):**

**Step 1:** What is the Digestive System?

- Explain the parts of the human digestive system (mouth, esophagus, stomach, intestines, etc.) using diagrams.

- Discuss the function of each part and how they work together to break down food.

**Step 2:** Importance of a Healthy Digestive System

- Engage students in a discussion on why a healthy digestive system is important.

- Highlight how it contributes to overall health, energy, and well-being.

- Ask students to share how they feel when they eat healthy versus unhealthy foods.

**Step 3:** Ways to Maintain a Healthy Digestive System

- Introduce and explain key practices: Eating a balanced diet, drinking plenty of water, and regular exercise.

- Use a healthy food chart to identify foods that support digestive health.

**Step 4:** Creating a Digestive Health Plan

- Guide students to develop their own simple plan for maintaining a healthy digestive system.

- Ask them to include at least three changes or habits they can adopt, such as eating more fruits and vegetables or drinking more water daily.

**Conclusion (5 minutes):**

- Summarize the key points discussed: parts and functions of the digestive system, its importance, and how to keep it healthy.

- Conduct a quick interactive activity where students can share their healthy plans and support each other with suggestions.

- Preview the next session on Nutrition and Food Groups, asking students to think of their favorite healthy foods.

**Extended Activities:**

- Healthy Eating Challenge: Students can track their food intake for a week and report back on how many healthy foods they ate.

- Create a Digestive System Model: Students can use craft materials to create a model of the digestive system, labeling each part and its function.

- Interactive Poster Presentation: In groups, create a poster with information and illustrations about one part of the digestive system and present it to the class.

**Teacher Self-Evaluation:**

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**WEEK 7: LESSON 1**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the symptoms of an unhealthy digestive system.

2.Watch video clips on symptoms of an unhealthy digestive system.

3. Appreciate the importance of a healthy human digestive system.

**Key Inquiry Questions:**

- What are the symptoms of an unhealthy digestive system?

- How can we recognize these symptoms through video clips?

**Learning Resources:**

- Grade 4 science and technology curriculum design.

- Video clips demonstrating the symptoms of an unhealthy digestive system.

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on the digestive system. Ask students questions like: "Can anyone remind us what the digestive system does?"

- Guide students to read a brief passage about healthy vs. unhealthy digestion from the learning resource, emphasizing key concepts like "healthy" and "unhealthy".

**Lesson Development (25 minutes):**

**Step 1:** Discuss Common Symptoms

- Present a list of common symptoms of an unhealthy digestive system (e.g., stomach ache, nausea, bloating).

- Encourage students to share any experiences or symptoms they have heard about. Ask questions like, “What might happen if we eat too much junk food?”

**Step 2:** Watch Video Clips

- Show video clips illustrating various symptoms of an unhealthy digestive system.

- Pause the video after each symptom and ask students to describe what they see and how it relates to what we've discussed.

**Step 3:** Group Discussion

- Divide students into small groups and ask them to discuss the symptoms they observed in the clips.

- Each group can share one symptom with the class and explain why it is important to recognize these symptoms.

**Step 4:** Importance of a Healthy Digestive System

- Discuss the importance of maintaining a healthy digestive system, including a balanced diet, hydration, and exercise.

- Use examples relevant to their lives, such as the benefits of eating fruits and vegetables.

**Conclusion (5 minutes):**

- Summarize the key points: symptoms of an unhealthy digestive system and the importance of maintaining a healthy system.

- Conduct a brief interactive activity: a “symptom charades” game where students act out symptoms for others to guess.

- Preview the next session: "Next time, we will explore how food travels through our digestive system!"

**Extended Activities:**

- Healthy Eating Journal: Students can keep a journal for a week to document what they eat and note whether they feel healthy or experienced any symptoms.

- Create a Health Poster: Students can create a poster that lists healthy foods for the digestive system and common symptoms of an unhealthy system.

- Class Survey: Conduct a class survey on what students believe contributes to a healthy lifestyle and discuss the results.

**Teacher Self-Evaluation:**

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**WEEK 7: LESSON 2**

**Strand:** Living Things and Their Environment

**Sub Strand:** Human Digestive System

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the symptoms of an unhealthy digestive system.

2. Watch video clips on symptoms of an unhealthy digestive system.

3. Appreciate the importance of a healthy human digestive system.

**Key Inquiry Questions:**

- What are the symptoms of an unhealthy digestive system?

- How can we identify these symptoms by watching video clips?

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson with a quick review of the previous session, which may have focused on the basic functions of different body systems or healthy eating.

- Ask students to share anything they remember about how food moves through the body.

- Introduce the day’s topic: the importance of a healthy digestive system and what happens when it is not healthy.

**Lesson Development (25 minutes):**

**Step 1:** Discuss Unhealthy Symptoms

- Engage students in a classroom discussion about what they think are common symptoms of an unhealthy digestive system (e.g., stomachaches, bloating, constipation).

- Write their ideas on the whiteboard to visualize their thoughts.

**Step 2:** Watch Video Clips

- Show short, age-appropriate video clips that illustrate symptoms of an unhealthy digestive system.

- After the clips, ask students to share what symptoms they recognized from the videos and how those symptoms connect to the discussion in Step 1.

**Step 3:** Group Activity

- Break students into small groups and give each group one symptom to discuss and research briefly using provided learning resources.

- Each group will prepare a quick presentation (1-2 minutes) on their symptom, including what might cause it and why it's important to seek help.

**Step 4:** Reflection and Discussion

- Regroup as a class and ask each group to present their findings.

- Lead a discussion on the impact of these symptoms on daily life and the importance of a healthy digestive system. Emphasize ways to keep the digestive system healthy.

**Conclusion (5 minutes):**

- Summarize the key points discussed: the symptoms of an unhealthy digestive system and its significance.

- Conduct an interactive quiz where students can answer questions about what they learned and share one thing they will do to keep their digestive system healthy.

- Preview the next lesson on the digestive process—what happens when food enters our mouth until it leaves the body.

**Extended Activities:**

- Creative Project: Have students create a poster illustrating the digestive system, labeling its parts and including tips for maintaining a healthy system.

- Home Assignment: Ask students to keep a food diary for a week and note how they feel after meals, discussing any symptoms they might notice based on what they eat.

- Research Project: Allow students to pick one food and research how it affects the digestive system, considering both healthy and unhealthy examples.

**Teacher Self-Evaluation:**

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**WEEK 7: LESSON 3**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the meaning of matter.

2. Categorize substances in the environment into the three states of matter (solid, liquid, gas).

3. Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Question(s):**

- What is matter?

- How can we categorize substances in our environment into the three states of matter?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Visual aids (charts, images) showing solids, liquids, and gases

- Everyday examples of different states of matter (water, ice, steam)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson, asking students to recall what they learned.

- Guide learners to read selected sections from the learning resources, focusing on the definition of matter and its significance.

**Lesson Development (25 minutes):**

**Step 1:** What is Matter?

- Introduce the concept of matter using simple language. Explain that matter is anything that takes up space and has weight.

- Ask students to think about different items in the classroom and identify if they are matter.

**Step 2:** The Three States of Matter

- Discuss solids, liquids, and gases.

- Use objects in the classroom as examples: a rock (solid), water (liquid), and air (gas) in a balloon.

- Create a Venn diagram on the board categorizing these states.

**Step 3:** Explore the Properties of Each State

- Describe key properties of each state (e.g., solids hold their shape, liquids take the shape of their container, gases fill their container).

- Invite students to share examples of each type of matter from their homes or experiences.

**Step 4:** Importance of States of Matter in Daily Life

- Discuss how different states of matter are important in daily life. For instance, cooking with water, using ice for drinks, or breathing in air.

- Encourage students to share their thoughts on why understanding these states helps us.

**Conclusion (5 minutes):**

- Summarize the key points: matter, states of matter, and their importance.

- Conduct an interactive activity: ask students to categorize mystery items in a box into solids, liquids, or gases.

- Preview the next lesson: “Matter Change – What Happens When Matter Changes States?”

**Extended Activities:**

- Home Observation: Encourage students to find examples of solids, liquids, and gases at home and share them with their classmates the following day.

- Cooking Experiment: If appropriate, guide students through a simple cooking activity (like making ice cubes or boiling water) to observe changes in states of matter.

- Matter Diary: Have students keep a "Matter Diary" for a week where they record things they observe that represent different states of matter.

**Teacher Self-Evaluation:**

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**WEEK 7: LESSON 4**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Identify the meaning of matter

2.Categorize substances in the environment into the three states of matter

3. Appreciate the importance of different states of matter in day-to-day life

**Key Inquiry Questions:**

- What is the meaning of matter?

- How can we categorize substances in our environment into the three states of matter?

**Learning Resources:**

- Grade 4 science and technology curriculum design

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review Previous Lesson: Start with a brief recap of what was learned in the last session. Ask students to recall what they know about matter so far.

- Discussion: Guide students to read and discuss key content from the learning resources, focusing on understanding what matter is in our daily lives.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Matter

- Activity: Ask students to share what they think “matter” means. Write down their ideas on the board.

- Content: Explain that matter is anything that takes up space and has mass, including solids, liquids, and gases.

**Step 2:** The Three States of Matter

- Activity: Have students name examples of solids, liquids, and gases from their surroundings.

- Content: Define and describe each state of matter:

- Solids: Have definite shape and volume (e.g., rocks, books).

- Liquids: Take the shape of their container but have a definite volume (e.g., water, juice).

- Gases: Have no definite shape or volume (e.g., air, helium).

**Step 3:** Categorizing Matter

- Activity: Conduct a sorting game where students categorize provided images or samples into solids, liquids, and gases.

- Content: Discuss the characteristics of each state and how they are observed in everyday life.

**Step 4:** Importance in Daily Life

- Activity: Partner students and prompt them to discuss why it’s important to understand the different states of matter.

- Content: Highlight how different states of matter affect what we eat, how we use daily items, and how things change from one state to another (e.g., ice melting to water).

**Conclusion (5 minutes):**

- Summarize Key Points: Review the definitions and examples of the three states of matter.

- Interactive Activity: Play a quick “Matter Bingo” where students have to identify states of matter based on items called out.

- Prepare for Next Session: Briefly mention that the next session will explore how matter changes states and introduce the concept of physical and chemical changes.

**Extended Activities:**

- Home Experiment: Ask students to find one example of each state of matter in their homes and bring a report back to class.

- Creative Project: Have students create a poster that visually represents the three states of matter, including examples and descriptions for each state.

**Teacher Self-Evaluation:**

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**WEEK 9: LESSON 1**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State the three states of matter.

2.Describe the properties of the three states of matter in solids, liquids, and gases.

3.Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the three states of matter?

- What are the properties of the three states of matter in solids, liquids, and gases?

**Learning Resources:**

- Grade 4 science and technology curriculum design

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a brief review of the previous lesson on matter. Ask students to share what they remember about matter and its different forms.

- Introduce the day's focus: the three states of matter. Guide the students to read short passages from the learning resources, highlighting key concepts.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the States of Matter

- Content: Explain that there are three states of matter: solid, liquid, and gas. Discuss common examples of each state.

- Solid: Definite shape and volume (e.g., rock, ice).

- Liquid: Definite volume but takes the shape of its container (e.g., water, juice).

- Gas: Neither definite shape nor volume, fills the container (e.g., air, steam).

**Step 2:** Properties of Solids

- Content: Discuss the properties of solids, including their fixed shape, fixed volume, and the fact that their particles are closely packed and vibrate in place. Use visuals or physical examples.

**Step 3:** Properties of Liquids

- Content: Explain the properties of liquids. Highlight how liquids have a fixed volume but can change shape, discussing particle movement: they are close but can slide past each other. Show examples and do a small demo with water.

**Step 4:** Properties of Gases

- Content: Finally, discuss gases, pointing out that they can fill a space and have neither shape nor volume. Include a fun demonstration using a balloon to illustrate how gas fills its container. Encourage students to think about how gases are all around us.

**Conclusion (5 minutes):**

- Summarize key points: the three states of matter (solid, liquid, gas) and their properties.

- Conduct a quick interactive activity: Ask students to categorize different items or pictures into solids, liquids, and gases on the board.

- Prepare students for the next session by giving them a preview of the properties and changes of states in matter (e.g., melting, freezing).

**Extended Activities:**

- Experiment: Have students conduct a simple experiment at home or school, such as observing ice melting or water boiling, and record their observations.

- Creative Project: Ask students to create a poster that depicts the three states of matter with pictures and key properties.

- Class Discussion: Organize a discussion on how different states of matter affect weather (like water vapor in the air) or how they are used in everyday life (like ice in drinks).

**Teacher Self-Evaluation:**

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**WEEK 9: LESSON 2**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.State the three states of matter.

2.Describe the properties of the three states of matter in solids, liquids, and gases.

3.Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the three states of matter?

- How can we describe the properties of solids, liquids, and gases?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Visual aids (charts/diagrams of states of matter)

- Interactive materials (such as water, ice, and balloons)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson. Ask students if they can remember what matter is and its importance in our daily lives.

- Guide learners to read and discuss relevant content from the learning resources, emphasizing the understanding of solids, liquids, and gases.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the States of Matter

- Explain that matter can exist in three states: solids, liquids, and gases.

- Use a chart to visually represent each state.

- Ask students to provide examples of each state (e.g., ice for solid, water for liquid, and air for gas).

**Step 2:** Properties of Solids

- Discuss and list the properties of solids: they have a definite shape, fixed volume, and are not easily compressible.

- Use a block of wood or a toy to show the rigidity and fixed shape of solids.

- Ask students to think of other examples of solids they encounter daily.

**Step 3:** Properties of Liquids

- Describe the properties of liquids: they do not have a definite shape but have a fixed volume and can flow easily.

- Demonstrate with a cup of water, pouring it into different containers to show how it takes the shape of the container.

- Discuss examples of liquids, such as water and juice.

**Step 4:** Properties of Gases

- Explain that gases have no definite shape or volume and can fill any space they occupy.

- Use a balloon as a visual aid to show that the air inside it takes the shape of the balloon and can be compressed.

- Encourage students to think of examples of gases, such as oxygen and carbon dioxide.

**Conclusion (5 minutes):**

- Summarize the key points discussed: the three states of matter and their properties.

- Conduct a brief interactive activity where students categorize items in the classroom as solids, liquids, or gases.

- Prepare learners for the next session by asking them to think about why different states of matter are important in our daily lives.

**Extended Activities:**

- State of Matter Experiment: Have students freeze water in different shapes (ice cubes, ice pops) and then observe how they change back to liquid at room temperature.

- Creative Poster Project: Students can create a poster showcasing the three states of matter with examples and illustrations.

- Matter Hunt: Assign students to find items at home or school that represent each state of matter and present their findings to the class.

**Teacher Self-Evaluation:**

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**WEEK 9: LESSON 3**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. State the three states of matter.

2.Watch video clips on the properties of the three states of matter.

3.Appreciate the importance of different states of matter in daily life.

**Key Inquiry Questions:**

- What are the three states of matter?

- How do we describe the properties of solids, liquids, and gases?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Selected video clips demonstrating states of matter

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on matter, focusing on key terms and concepts.

- Give students a brief overview of today’s lesson, discussing the states of matter and why they are important in everyday life.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the Three States of Matter

- Introduce the three states of matter: solids, liquids, and gases.

- Display images of different examples of each state (e.g., ice, water, and steam) for visual understanding.

- Discuss their definitions and ask students to give everyday examples.

**Step 2:** Properties of Solids

- Explain the properties of solids (fixed shape, fixed volume, and cannot be compressed).

- Conduct a quick demonstration using a rock and a ball of clay to illustrate how solids maintain their shape.

**Step 3:** Properties of Liquids

- Discuss the properties of liquids (take the shape of their container, fixed volume, and cannot be compressed).

- Show a video clip of water being poured into different containers to visually represent these properties.

**Step 4:** Properties of Gases

- Explain the properties of gases (take the shape of their container, can change volume, and can be compressed).

- Conduct a simple experiment using a balloon, demonstrating that gases expand to fill the space available and can be compressed.

**Conclusion (5 minutes):**

- Summarize the key points regarding the three states of matter and their properties.

- Conduct a brief interactive activity where students classify various items as solids, liquids, or gases.

- Prepare learners for the next session by posing thoughtful questions about where they see these states in nature or their environment.

**Extended Activities:**

- Create a "States of Matter" poster project where students can illustrate and describe different examples of solids, liquids, and gases.

- Conduct a “Matter Hunt” where students go home and find items that represent each state of matter, then present their findings to the class.

- Science journaling: Encourage students to write about a day in their life, highlighting where they encounter solids, liquids, and gases.

**Teacher Self-Evaluation:**

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**WEEK 9: LESSON 4**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the characteristics of the three states of matter (solid, liquid, gas).

2. Watch video clips on the characteristics of the three states of matter.

3.Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the characteristics of solids, liquids, and gases?

- Why are the different states of matter important in our daily lives?

**Learning Resources:**

- Grade 4 science and technology curriculum materials

- Video clips on the three states of matter (e.g., Youtube educational clips)

- Visual aids (charts/diagrams)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a brief review of the previous lesson on matter.

- Ask students to share what they remember about solids, liquids, and gases.

- Introduce the concept of states of matter and explain that today they will explore these states more deeply.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to the Three States of Matter

- Present a colorful chart showing solids, liquids, and gases.

- Describe the characteristics of each state:

- Solids have a fixed shape and volume (e.g., ice, rocks).

- Liquids take the shape of their container but have a fixed volume (e.g., water, juice).

- Gases fill the entire volume of their container and have no fixed shape (e.g., air, steam).

- Ask students for examples of each state from their own lives.

**Step 2:** Video Clips

- Show selected video clips demonstrating the three states of matter in action.

- Pause the video at key moments to discuss what students observe and relate it back to the earlier characteristics discussed.

**Step 3:** Group Discussion

- Divide students into small groups to discuss:

- How are solids, liquids, and gases different?

- Where do we see these states of matter in our everyday lives?

- Each group will have a note-taker to jot down key points for sharing with the class.

**Step 4:** Class Share

- Bring the class back together and invite each group to share one or two observations from their discussions.

- Highlight any interesting examples or insights shared by the students.

**Conclusion (5 minutes):**

- Summarize the key points learned about the three states of matter.

- Discuss the importance of understanding matter in everyday life (e.g., cooking, weather, and packaging).

- Conduct a quick interactive activity: Have students stand up if the item you name is a solid, sit down if it is a liquid, and wave their arms if it is a gas.

- Preview the next lesson by introducing the concept of matter changes (e.g., melting, freezing, boiling) and pose a question for students to think about: "What happens to ice when it melts?"

**Extended Activities:**

- State of Matter Journal: Students can keep a journal for a week where they observe and note examples of solids, liquids, and gases they encounter at home or in school.

- Creative Project: Students can create models of solids, liquids, and gases using craft materials (e.g., clay for solids, water in clear containers for liquids, balloons for gases).

- Science Experiment: Conduct simple experiments, like observing the state of matter changes when ice is left out to melt or boiling water to produce steam.

**Teacher Self-Evaluation:**

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**WEEK 10: LESSON 1**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the characteristics of the three states of matter.

2. Watch video clips on the characteristics of the three states of matter.

3. Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Question(s):**

- What are the characteristics of solids, liquids, and gases?

- How do these states of matter behave differently?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Video clips illustrating the three states of matter (available on educational platforms)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson with a quick review of the previous lesson, asking students questions to recall what they learned about matter.

- Introduce the three states of matter (solids, liquids, gases) and guide learners to read from the learning resources, prompting discussion about their characteristics.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to States of Matter

- Briefly explain the three states of matter. Use simple definitions:

- Solid: Has a definite shape and volume (e.g., a rock).

- Liquid: Takes the shape of its container but has a definite volume (e.g., water).

- Gas: Fills the shape of its container and has no definite volume (e.g., air).

- Ask students for examples of each state they encounter daily.

**Step 2:** Characteristics of Solids and Liquids

- Discuss the characteristics of solids: rigid, keeps shape, does not flow.

- Discuss the characteristics of liquids: flows, takes shape of the container, can be poured.

- Create a chart on the board comparing solids and liquids.

**Step 3:** Watching Videos

- Play short video clips showcasing the three states of matter in action, focusing on examples around the house, school, and nature.

- After each clip, pause to discuss and ask questions to solidify understanding.

**Step 4:** Group Discussion and Examples

- In groups of four, have students discuss why understanding the states of matter is important in everyday life.

- Encourage them to think of instances such as cooking (liquids to solids) and weather (gases).

**Conclusion (5 minutes):**

- Summarize the key points discussed in the lesson: characteristics of solids and liquids, and the importance of states of matter.

- Conduct a brief interactive activity (e.g., “Matter Charades” where students act out a state of matter) to reinforce learning.

- Preview the next session focusing on gases and their properties, encouraging students to observe their surroundings for examples.

**Extended Activities:**

- At-Home Experiment: Have students collect examples of solids (like a toy), liquids (like juice), and gases (like air filling a balloon). They can present their collections in the next class.

- Art Project: Invite students to draw and label their favorite objects representing each state of matter, decorating them based on their properties (e.g., wavy for liquids, sharp edges for solids).

- Matter Journal: Ask students to keep a "Matter Journal" where they record different states of matter they encounter throughout the week.

**Teacher Self-Evaluation:**

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**WEEK 10: LESSON 2**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Outline the importance of different states of matter.

2.Collect and group different substances from the environment into three states of matter.

3. Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the different states of matter?

- Why are the different states of matter important?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Everyday materials (solids, liquids, gases) for in-class activity

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on states of matter. Ask students what they remember about solids, liquids, and gases.

- Guide learners to read a section from the learning resources that defines the three states of matter and their properties. Discuss briefly as a class.

**Lesson Development (25 minutes):**

**Step 1:** Introduce States of Matter

- Explain the definitions of solids, liquids, and gases using simple language. Provide examples:

- \*Solids\* - ice, rock

- \*Liquids\* - water, juice

- \*Gases\* - air, steam

- Discuss the properties of each state (shape, volume, and ability to flow).

**Step 2:** Group Activity

- Provide students with various objects and pictures representing different substances.

- In small groups, have students categorize these items into solids, liquids, or gases. Encourage students to explain their reasoning for each classification.

**Step 3:** Class Discussion

- Bring the class back together and have each group present one item they classified and why.

- Discuss as a class the importance of each state of matter in daily life (e.g., why we use ice in drinks, or how gas is used to cook food).

**Step 4:** Exploration of Everyday Situations

- Ask students to share a situation at home or school where they have seen solids, liquids, and gases interacting (e.g., melting ice, boiling water).

- Encourage students to appreciate how understanding these concepts helps us make choices (like freezing or cooking food).

**Conclusion (5 minutes):**

- Summarize the key points covered: definitions, properties, importance of states of matter.

- Conduct a quick interactive activity where students point to an object in the room and shout what state of matter it is—solid, liquid, or gas.

- Preview the next lesson on changes in states of matter (melting, freezing, evaporation) and encourage students to think about examples they see at home.

**Extended Activities:**

- Matter Scavenger Hunt: Students could conduct a scavenger hunt at home or in the yard, collecting small items to further explore and categorize them into solids, liquids, and gases.

- Create a Liquid Science Journal: Ask students to keep a 1-week journal where they document different liquids they use, how they behave, and why they are important in their lives.

- Art and Matter Project: Students can draw or craft items influenced by their understanding of solid, liquid, and gas (e.g., a glass, a cloud, an ice cream cone).

**Teacher Self-Evaluation:**

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**WEEK 10: LESSON 3**

**Strand:** Matter

**Sub Strand:** Properties of Matter

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Outline the importance of different states of matter.

2.Collect and group different substances from the environment into three states of matter.

3. Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the three states of matter?

- Why are the different states of matter important in our lives?

**Learning Resources:**

- Grade 4 Science and Technology curriculum design

- Various substances (e.g., water, rocks, air, ice)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a review of the previous lesson on matter. Ask students to quickly define "matter."

- Introduce the three states of matter: solid, liquid, and gas. Guide learners to read and discuss relevant content from the learning resource, encouraging them to express their understanding of the key concepts.

**Lesson Development (25 minutes):**

**Step 1:** Identifying States of Matter

- Present examples of substances in each state of matter (e.g., ice as a solid, water as a liquid, and air as a gas).

- Engage students by asking them to find examples around the classroom or home to fill in a chart: "Solids," "Liquids," and "Gases."

**Step 2:** Importance of Solids

- Discuss the importance of solids in daily life (e.g., building materials, food items).

- Encourage students to think of other solids they encounter daily and share their examples with the class.

**Step 3:** Importance of Liquids

- Discuss how liquids, like water and juice, are essential for hydration and cooking.

- Ask students why they think liquids are important and allow a few to share their thoughts.

**Step 4:** Importance of Gases

- Explain how gases, such as oxygen and carbon dioxide, are crucial for breathing and plant growth.

- Get students to think about other everyday experiences with gases (e.g., bubbles, balloons) and provide examples.

**Conclusion (5 minutes):**

- Summarize the key points covered, ensuring students understand the three states of matter and their importance.

- Conduct a brief interactive activity, such as categorizing items into solids, liquids, and gases on the whiteboard.

- Prepare learners for the next session by previewing the topic of changes in states of matter, encouraging questions like "What happens when ice melts?"

**Extended Activities:**

- State of Matter Scavenger Hunt: Assign students to find an item at home that represents each state of matter. They will take pictures and present their findings to the class.

- Creative Project: Have students create a poster that illustrates each state of matter, includes examples, and explains its importance in everyday life.

- Matter Experiment: Plan a simple science experiment where students can observe a change in state, such as melting ice or boiling water, and discuss their findings.

**Teacher Self-Evaluation:**

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**WEEK 10: LESSON 4**

**Strand:** Matter

**Sub Strand:** Management of Solid Waste

Specific Learning Outcomes:

**- By the end of the lesson, learners should be able to:**

1. Identify types of wastes in the immediate environment.

2. Classify solid waste into decomposable and non-decomposable.

3. Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What types of waste can we find in our immediate environment?

- How can we classify solid waste into decomposable and non-decomposable categories?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Visual aids (charts or images of various waste types)

- Materials for hands-on activities (e.g., waste items for classification)

**Organisation of Learning:**

**Introduction (5 minutes):**

- Objective: Review previous lessons about matter and introduce waste management.

- Activities:

- Briefly revisit the last lesson on states of matter. Ask students to share what they remember about solids, liquids, and gases.

- Guide learners to read sections from the curriculum that discuss types of waste, focusing on solid waste.

**Lesson Development (25 minutes):**

**Step 1:** Exploration of Waste Types

- Objective: Identify different types of waste found in the school environment.

- Activities:

- Walk around the school or playground (if possible) or display pictures of common waste found in school.

- Have students call out different types of waste they see (e.g., paper, plastic, food scraps).

**Step 2:** Discussion on Decomposable vs. Non-Decomposable Waste

- Objective: Classify the identified waste into decomposable and non-decomposable.

- Activities:

- Explain the differences: Decomposable waste can break down naturally (e.g., food scraps), while non-decomposable waste does not (e.g., plastic).

- Use a sorting chart for students to categorize the waste items into two groups.

**Step 3:** Importance of Waste Management

- Objective: Appreciate the importance of managing solid waste.

- Activities:

- Discuss why it’s important to manage solid waste properly (e.g., to protect the environment, health reasons).

- Engage students in a short conversation, asking them about how they can help in their homes or schools.

**Step 4:** Connect to States of Matter

- Objective: Link the concept of waste to states of matter.

- Activities:

- Explain how waste can be in solid, liquid, or gas forms and the implications of each type.

- Ask students to give examples of each.

**Conclusion (5 minutes):**

- Objective: Summarize key points and reinforce learning objectives.

- Activities:

- Recap the differences between decomposable and non-decomposable waste, and why it is important to classify them.

- Conduct a quick interactive activity where students shout out one decomposable and one non-decomposable waste item.

- Briefly preview the next lesson which will focus on recycling and its importance.

**Extended Activities:**

- Waste Journal: Ask students to maintain a waste journal for a week, noting down the types of waste they encounter at home or in their neighborhood, and classify them.

- Recycling Project: Encourage students to create a project or poster showing ways to recycle various types of waste in their community.

- Guest Speaker: Invite a local environmentalist or waste management expert to speak with the class about the importance of managing waste.

**Teacher Self-Evaluation:**

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**WEEK 11: LESSON 1**

**Strand:** Matter

**Sub Strand:** Management of Solid Waste

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify types of wastes in the immediate environment.

2.Classify solid waste into decomposable and non-decomposable.

3.Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What types of waste can we find in our environment?

- How can we classify solid waste into decomposable and non-decomposable?

**Learning Resources:**

- Grade 4 science and technology curriculum design

- Pictures and examples of different types of waste (real or digital)

- Sorting materials for hands-on classification activity

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson on matter and its states.

- Introduce the topic of solid waste management by asking students what they think solid waste is and where they see it in their everyday life.

- Read together from the learning resources, focusing on waste types.

**Lesson Development (25 minutes):**

**Step 1:** Identifying Types of Waste

- Discuss and list different types of waste commonly found in the environment (e.g., food scraps, plastic bottles, paper, metals).

- Use visuals to enhance understanding.

**Step 2:** Introduction to Decomposable and Non-Decomposable Waste

- Explain decomposable waste (organic matter, e.g., food waste) and non-decomposable waste (e.g., plastics, metals).

- Provide examples for each category.

**Step 3:** Classification Activity

- Divide students into small groups and give them various waste items or pictures of waste types.

- Task each group with classifying the items as either decomposable or non-decomposable.

**Step 4:** Discussion on Importance

- Bring the class back together and discuss why it's important to understand waste classification.

- Engage students to share how they can reduce waste and contribute to a cleaner environment.

**Conclusion (5 minutes):**

- Summarize the key points from today's lesson, including the definitions of decomposable and non-decomposable waste.

- Conduct a quick interactive activity: Have students hold up their hands for decomposable (thumbs up) or non-decomposable (thumbs down) as you call out different waste items.

- Briefly preview the next session, mentioning the impact of waste on the environment and plans to delve into recycling.

**Extended Activities:**

- Waste Scavenger Hunt: Have students bring in items from home and classify them in class, or organize a local clean-up day where they can collect and classify waste they find.

- Recycling Project: Assign students to create a poster or presentation on why recycling is beneficial for the environment using the types of waste they learned about.

- Home Waste Journal: Encourage students to keep a journal for a week, tracking the types of waste their households produce and how they can reduce or recycle those items.

**Teacher Self-Evaluation:**

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**WEEK 11: LESSON 2**

**Strand:** Matter

**Sub Strand:** Management of Solid Waste

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Outline the dangers of solid waste to the environment

2.Watch video clips on the dangers of solid waste

3.Appreciate the importance of different states of matter in day-to-day life

**Key Inquiry Questions:**

- What are the dangers of solid waste to the environment?

- How do different states of matter relate to solid waste?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Video clips on solid waste management

- Chart paper and markers for group activities

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson, asking students what they remember about matter and its states (solid, liquid, gas).

- Have students read a short excerpt from the learning resources on solid waste. Facilitate a discussion on what they learned, especially focusing on the definition of solid waste.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Solid Waste

- Define solid waste together. Have students brainstorm examples (like plastic bottles, food scraps, etc.).

- Discuss where solid waste comes from in daily life.

**Step 2:** Dangers of Solid Waste

- Show video clips illustrating the dangers of solid waste to the environment (e.g., pollution, harm to wildlife).

- After watching, facilitate a discussion on what students observed in the videos and how these issues affect their community.

**Step 3:** Importance of Different States of Matter

- Briefly review the three states of matter: solid, liquid, and gas.

- Explain how understanding these states is important in managing solid waste (e.g., recycling plastics vs. composting food waste).

**Step 4:** Interactive Classification Activity

- Divide the class into small groups. Give each group a set of items (pictures or real objects) and have them classify them as solid waste and possible recyclables.

- Have groups share their classifications and discuss why certain items belong in one category or the other.

**Conclusion (5 minutes):**

- Summarize key points: What is solid waste? What dangers does it pose? How do different states of matter relate?

- Conduct an interactive activity such as a quick quiz or thumbs up/thumbs down related to the main topics discussed.

- Prepare students for the next session by asking them to think about ways they can reduce solid waste at home.

**Extended Activities:**

- Homework Assignment: Have students create a poster demonstrating one way to reduce solid waste in their home or community. They can include pictures, drawings, or slogans.

- Class Project: Start a recycling initiative in the classroom where students can collect recyclable items for a week. Discuss the outcomes and experiences in the next lesson.

- Field Trip: Plan a visit to a local recycling center or waste management facility to learn about how solid waste is handled in their community.

**Teacher Self-Evaluation:**

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**WEEK 11: LESSON 3**

**Strand:** Matter

**Sub Strand:** Management of Solid Waste

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Outline dangers of solid waste to the environment.

2.Collect solid waste in the school, sort and classify them into decomposing and non-decomposing waste.

3.Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the dangers of solid waste to the environment?

- How does solid waste impact our daily lives?

**Learning Resources:**

- Grade 4 Science and Technology Curriculum Design

- Video clips on the dangers of solid waste

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson by reviewing what was learned in the previous session about the states of matter.

- Introduce the topic of solid waste management and its significance.

- Guide students to read and discuss relevant content from the learning resources with an emphasis on understanding the dangers of solid waste.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Solid Waste

- Present a video clip that outlines the dangers of solid waste (e.g., pollution, harm to wildlife, health issues).

- Ask students to share their thoughts after watching the video. What stood out to them? How do they see this issue in their own community?

**Step 2:** Sorting Solid Waste

- Organize students into small groups and provide them with different types of waste materials (e.g., paper, food scraps, plastic items).

- Have each group sort their materials into two categories: decomposing (organic) and non-decomposing (inorganic) waste.

**Step 3:** Discussing the Importance of Recycling

- Engage students in a discussion about how recycling non-decomposing waste can reduce environmental harm.

- Introduce the concept of composting for decomposing waste, explaining how it benefits the soil.

**Step 4:** Real-Life Connections

- Guide students to brainstorm ways they can manage solid waste in their homes and schools.

- Encourage students to think about how the states of matter relate to these waste types, such as the solid nature of plastics and the liquid nature of compost tea.

**Conclusion (5 minutes):**

- Summarize the key points discussed in the lesson: the dangers of solid waste, the importance of sorting waste, and how recycling impacts the environment.

- Conduct a brief interactive activity where students share one way they can reduce waste in their daily lives.

- Preview the next lesson by asking students how they think they could help clean their local environment.

**Extended Activities:**

- Art Project: Have students create artwork or posters that promote waste management and recycling. Display these around the school to raise awareness.

- Field Trip: Organize a visit to a local recycling center or composting facility to observe waste management in action.

- Home Waste Audit: Encourage students to conduct a waste audit at home, where they monitor what types of waste their family produces for a week.

**Teacher Self-Evaluation:**

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**WEEK 11: LESSON 4**

**Strand:** Matter

**Sub-Strand:** Management of Solid Waste

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify methods of managing solid waste.

2.Apply appropriate methods of managing solid waste in the environment.

3.Appreciate the importance of different states of matter in day-to-day life.

**Key Inquiry Questions:**

- What are the methods of managing solid waste?

- How can we apply appropriate methods of managing solid waste in the environment?

**Learning Resources:**

- Grade 4 Science and Technology curriculum design.

- Articles, videos, and diagrams about solid waste management.

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson on states of matter. Ask students to name the three states of matter and give examples.

- Introduce the topic of solid waste management. Guide learners to read and discuss relevant content from the learning resources. Emphasize the connection between matter and waste.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Solid Waste

- Discuss what solid waste is and where it comes from. Ask students to give examples of solid waste they encounter daily (e.g., food packaging, paper, plastics).

- Introduce different types of solid waste: organic, recyclable, and landfill waste.

**Step 2:** Methods of Managing Solid Waste

- Present various methods for managing solid waste:

- Reduce: Explain how using less can affect waste production.

- Reuse: Discuss how items can be used again rather than thrown away.

- Recycle: Explain how materials can be turned back into new products.

- Composting: Describe how organic waste can decompose and benefit the environment.

- Have students create a chart listing these methods and give real-life examples.

**Step 3:** Implementing Waste Management in the Environment

- Divide the students into small groups. Each group will brainstorm how they can apply one of the methods discussed in their school or home.

- Ask each group to share their ideas with the class.

**Step 4:** Importance of States of Matter in Waste Management

- Discuss how different states of matter (solid, liquid, gas) are related to waste. For example, how recycling a plastic bottle changes its state.

- Encourage students to think about how understanding matter helps us in daily decisions related to waste management.

**Conclusion (5 minutes):**

- Summarize key points: the definition of solid waste, methods of management, and the importance of understanding matter.

- Conduct a brief interactive activity, such as a "Waste Management Quiz" using flashcards with different waste items for students to categorize (recyclable, compostable, etc.).

- Prepare learners for the next session by previewing topics related to renewable resources and their impact on waste reduction.

**Extended Activities:**

- Clean-Up Project: Organize a school-wide clean-up day where students can apply waste management methods in practice.

- Create a Recycling Center: Have students design a recycling center model for their classroom, highlighting different bins for types of waste.

- Waste Diary: Encourage students to keep a waste diary for a week, where they record types of waste they produce and suggest ways to reduce it.

**Teacher Self-Evaluation:**