| MATATAG K to 10 Curriculum – Weekly Lesson Log | School: | | Grade Level: | V |
|---|---|---|---|---|
| | Teacher: | | Learning Area: | SCIENCE |
| | Teaching Dates and Time: | | Quarter: | 1st QUARTER Week 3 |

| | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
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| **I. CURRICULUM CONTENT, STANDARDS AND LESSON COMPETENCIES** | | | | | |
| | | | | | |
| **A. Content Standards** | The learners learn that:<br>1) Scientists identify three states of matter based on shape and volume.<br>2) Temperature can cause changes of state.<br>3) Planned simple scientific investigations require several steps and processe | | | | |
| **B. Performance Standards** | By the end of the quarter, learners describe three states of matter based on properties of shape and volume and identify heat as being involved in changes of state. They plan a simple scientific investigation following appropriate steps and using units such as milliliters, liters, grams, kilograms, and degrees Celsius for measuring. | | | | |
| **C. Learning Competencies** | **Learning Competency:** The learners identify objects at home and in the classroom as solid, liquid or gas.<br>*Learning Objective:*<br>The learners will be able to:<br>1. recognize common materials seen and used at home or in school as solid, liquid or gas. | | | | |
| **D. Content** | 1. Matter in daily life<br>2. Matter and its three states | | | | |
| **E. Integration** | Safety: When conducting experiments even with common materials, precaution and safety procedures must still be followed.<br>Accountability and Responsibility: Learners should understand that different materials can be beneficial if use in the right and proper way and can be harmful if used otherwise. | | | | |
| **II.LEARNING RESOURCES** | | | | | |
| ● Campbell, C., & Tytler, R. (2007). Views of student learning. In V. Dawson & G. Venville (Eds.), The Art of Teaching Primary Science (pp. 23-41). Australia: Griffin Press.<br>● Delos Reyes, R. L. (2022). Science Links. Quezon City: REX Publication. | | | | | |

● H. (n.d.). Free photo of Stone tower. https://www.stockvault.net/photo/135306/stone-tower

● JICA National Science Textbook for Grade 5. (2020). Department of Education Papua New Guinea. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi5hNGBv4mFAxVfxjgGHUf6B1wQFnoECBsQAQ&url=https%3A%2F%2Fwww.jica.go.jp%2FResource%2Fproject%2Fpng%2F004%2Fmaterials%2Fku57pq00003t6ut6-att%2Fg5_science_text_01.pdf&usg=AOvVaw2EdHbiSyO2ZoD9_DGqVNys&opi=89978449 . pp. 57-80
● Yakovenko, O. (2022). Isolated clean water blue drop, vector illustration 8468264 royalty-free Vector [Image]. Vecteezy. https://www.vecteezy.com/vector-art/8468264-isolated-clean-water-blue-drop-vector-illustration
● Free Vector. (2021). Celebratory balloons on isolated background [Image]. Freepik. https://www.freepik.com/free-vector/celebratory-balloons-isolated-background_13187590.htm#query=balloons&position=3&from_view=keyword&track=sph&uuid=a27f33d2-7c97-42c7-a950-e3868fb06ecc
● *Three states of matter*. (n.d.). Science Learning Hub. https://www.sciencelearn.org.nz/images/1839-three-states-of-matter
● S. S. E. (2022). *Solid, Liquid and Gas | States of Matter Song | Science Song for Children | KS1 & KS2* [Video File]. YouTube. Retrieved https://www.youtube.com/watch?v=Re3_ajB11E0
● TutorVista. (2010. *Arrangement of Molecules In The Three States Of Matter* [Video File]. YouTube. Retrieved https://www.youtube.com/watch?v=v12xG80KcZw

**III. TEACHING AND LEARNING PROCEDURES**

A. Activating Prior Knowledge

**1. Short Review:**

Write names of materials on pieces of paper and place them in a box. Prepare two sets of this. On the board, draw this table.

| SOLID | LIQUID | GAS |
|---|---|---|
| | | |
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Divide the class into two. Each group will be given a box. The members of each group will line up. The learner at the end of the line will draw a piece of paper from the box and read what's written on it silently and whisper it to the learner next to him and relay the message by

Name five (5) objects or materials that can be found at home. Write them in the box below and say something about their characteristics. Do this on a separate piece of paper.

Put a ☐ on the box if it is a proper ways of handling materials and put a ☐ if it is not.

a. 

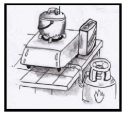
☐ Label poisonous Substances and keep out of children's reach

b. 

☐ Using hand gloves and gas masks when using pesticides.




☐ Inspecting regularly if the cooking gas tank is tightly closed.



DRAFT
AUG 10, 2014

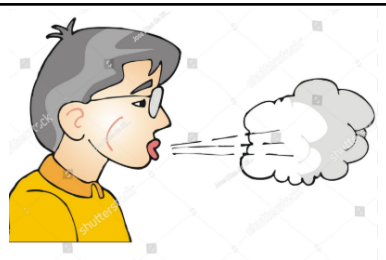
**Instructions:** Draw a line to match the object to its correct state of matter.

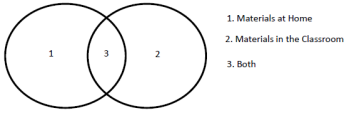
| Object | State of Matter |
|---|---|
| 1. Orange juice | A. Solid |
| 2. Wooden table | B. Liquid |
| 3. Candle smoke | C. Gas |
| 4. Ice | D. Solid |
| 5. Perfume mist | E. Gas |

**Instructions:** Write **solid**, **liquid**, or **gas** next to each classroom object.

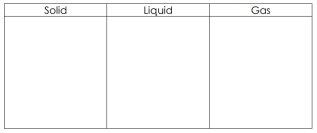
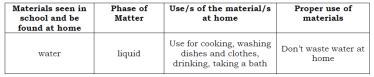
1. Whiteboard
2. Drinking water in a bottle
3. Air in the classroom
4. Pencil
5. Glue

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| | whispering to the next learner until the message reached the last learner at the front line. The learner at the front will write the name of the material under the phase of matter it belongs to. The first group to classify most of the materials correctly will be the winner. | | | | |
| **B. Establishing Lesson Purpose** | | | | | |
| **1. Lesson Purpose:** | "In our past lessons, we discussed the different characteristics of matter and its different phases. We also familiarized ourselves with their properties. This week let's get closer to the different materials we use at home in our classroom and be able to classify them as solid, liquid, or gas." | Look at the picture.<br><br>Ask: What happened in the picture class?<br>What do you think causes the house on fire?<br><br>Ask the pupils to write their presumptions on what have caused the house on fire on a sticky notepad.<br>After they finish writing their presumption, ask them to paste it on a designated wall in the room.<br>Call a volunteer pupil to group similar presumptions<br>Help the pupils to determine what | A. Arrange the following materials found at home in the appropriate columns provided below.<br><br>Shampoo lotion soy sauce<br>Soap Baygon figurines<br>LPG salt rice<br>Flower vase milk detergent<br><br>Use as food \| Use for cooking \| Use to beautify homes \| Use for cleaning the house \| Use for cleaning the body/ self \| Use as beauty product \| Use for killing insects/ pest | **Instructions:** Cut out the objects below and paste them into the correct column (Solid, Liquid, or Gas).<br>(*You can draw or write if you don't want to cut and paste.*)<br><br>**Objects to Sort:**<br><br> | **Instructions:** Match the object to the correct state of matter.<br><br>Object \| State of Matter<br>1. Ruler A. Liquid<br>2. Poster on wall B. Solid<br>3. Cleaning spray C. Gas<br>4. Paint D. Liquid<br>5. Chalk E. Solid |

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| | | presumption is most common among their responses. | |    Solid Liquid Gas | |

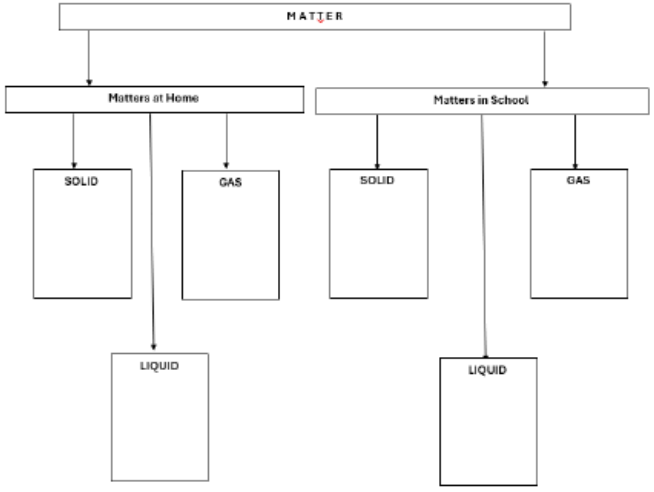
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| **2. Unlocking Content Vocabulary** | Tell learners to find a buddy. Each pair should have a dictionary which they can use in this activity. Using cards, the teacher will flash the words to be defined by the learners. The first pair to locate the meaning in the dictionary and read it to the class will be given a point.<br>The following words will be defined in this activity: MATTER, SOLID, LIQUID, GAS, TEXTURE, WEIGHT, MASS, MOLECULES, SHAPE, COLOR. | | | | |
| **C. Developing and Deepening Understanding**<br>**SUB-TOPIC 1:**<br>☐ **Explicatio n** | **Identifying objects at home as solid, liquid, or gas.**<br><br>**"States of Matter Sorting Game"**<br>**Materials needed:**<br>1. Pictures or examples of items representing each state of matter (e.g., a rock for solid, water for liquid, and air for gas).<br>2. Three containers labeled with each state of matter (solid, liquid, gas).<br>3. Index cards or meta card.<br>**Instructions:**<br>1. Students will be given index cards or meta cards with the pictures of various objects or substances written on them. Their task is to categorize each item into the appropriate container based on its state of | Everything around us is matter. Matter is anything that has weight and takes up space. Everything you can see and touch is made up of matter. Matter comes in different shapes and sizes. Why does matter come in different sizes and shapes? Well, that is because matter comes in three forms: solid, liquid, and gas. Solid, liquid, and gas will fill up space in different ways depending upon how big, small, long, or short the object is. Let us explore more about them and their properties!<br><br>Examples of solids are flowers, tables, and chairs. Solids have shape, color, texture, and size. Liquids are objects that we can also touch and see. They change shape depending on the container. It has weight. Water is a famous example of liquid. Gas is | Identifying objects in the classroom as solid, liquid, or gas<br><br>The teacher will instruct pupils to check the picture stuck under their chair. Using the Venn Diagram, they are to classify them as to materials found at home, materials found in the classroom, or both.<br><br> | "School Field Trip Matters"<br><br>**Materials Needed:**<br>• the materials found in each identified areas in the school to be visited.<br><br>**Instructions:**<br>1. Work with your groupmates.<br>2. Be sure to follow rules set by the class in visiting the different areas of the school.<br>3. The areas to be visited by each group is as follows: School Canteen, School Clinic, School Library, and School Garden<br>4. Complete the table below as your designated area. An example given below serve as your guide.<br><br>**Place (Designated area to visit)** / **Name of Matter** / **Classification** / **Characteristics**<br>School Canteen / soda / liquid / soda takes the shape of its container and it flows | **Instructions:** Complete each sentence by writing **solid**, **liquid**, or **gas**.<br>1. A chair is a _____ because it has a fixed shape and size.<br>2. The ink inside a pen is a _____ because it flows and takes the shape of its container.<br>3. The air we breathe in the classroom is a _____.<br>4. A bottle of correction fluid contains a _____.<br>5. The blackboard is a _____. |

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| | matter (solid, liquid, or gas).<br>2. Hand out the index cards or meta cards to the students.<br>3. Allow time for the students to examine their items and decide which container they belong in.<br><br>4. Once everyone has made their decisions, go around the group and have each participant place their item into the correct container, explaining their reasoning as they do so.<br>5. Encourage discussion and clarification as needed to reinforce understanding.<br>6. After all items have been sorted, review each container together, discussing any items that may have caused confusion or debate.<br>7. Wrap up the activity by summarizing the key characteristics of each state of matter and | another form of matter. It cannot be seen but is around us. We can feel it. Gas has weight and occupies space. It has no shape or size. The air we inhale is a gas. | | | |

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| | reinforcing the concepts learned. | | | | |
| ☐ **Worked Example** | Objects and materials found at home are matter. Can you identify them? Draw three (3) examples for each phase.<br><br><br> | Let's Investigate!<br>Activity I – "**Household States of Matter - Scavenger Hunt**"<br>*(Learning Activity Sheet #1)*<br>**Materials Needed:**<br>• • Checklist<br>• • Pen and paper<br>• • Various household materials<br><br>Instructions:<br>1. You are going on a scavenger hunt to find objects around your home such as your kitchen, bedroom, living room, and garage or garden. Classify these objects according to their states of matter and describe their characteristics.<br>2. Use your knowledge of the properties of each state of matter to make their classifications. | Guide Questions:<br>1. Based on the diagram, what are the materials found at home?<br>2. Classify these materials as solid, liquid, or gas.<br>3. What are the materials that can be found inside the classroom?<br>4. Classify the materials as solid, liquid, and gas.<br>5. What are the materials that can be found both at home and in the classroom?<br>6. Classify them as solid, liquid, and gas.<br>7. What can you say about materials found at home, in the classroom, or both?<br>*Are there other materials found in school aside from the materials that you can see inside our classroom? Let's learn more about these.* | What are the materials you can see at home which can be seen in the different areas at school?<br><br><br> | **Instructions:** Write **True** if the statement is correct and **False** if it is not.<br>1. A crayon is a solid.<br>2. Water inside a glass is a gas.<br>3. Air coming from the electric fan is a gas.<br>4. The classroom desk is a liquid.<br>5. Glue in a bottle is a liquid. |

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<td>3. Complete the table below. Item 1 is given as an example<br><table>
<tr><th>Place</th><th>Name of Matter</th><th>Classification</th><th>Characteristics</th></tr>
<tr><td rowspan="6">Kitchen</td><td>water</td><td>liquid</td><td>water takes the shape of the glass and flows</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td rowspan="6">Bathroom</td><td></td><td></td><td></td></tr>
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<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td rowspan="3">Living Room</td><td></td><td></td><td></td></tr>
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<tr><td rowspan="7">Garage or Garden</td><td></td><td></td><td></td></tr>
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<td>☐ Lesson Activity</td>
<td>The teacher will require the learners to write a short story in their notebook with any of these titles:<br>“I am a Solid”<br>“I am a Liquid”<br>“I am a Gas”<br>Facts should include:<br>a) Properties of the chosen state of matter.<br>b) Pictures/drawings of the chosen state of matter.<br>c) Information about how this state of matter is measured and how it changes under different conditions.<br>d) Information about how this state of matter is</td>
<td>Based on the activity conducted in the “Household States of Matter - Scavenger Hunt”, the teacher will ask the following questions, probing for answers.<br>• • Can you share an item you found from the scavenger hunt and explain why you classified it as a solid, liquid, or gas?<br>• ✓ Example: "I found a glass of water, and I classified it as a liquid because the water takes the shape of the glass and flows. It doesn't have a fixed shape like a solid, and it doesn't expand to fill the entire room like a gas."</td>
<td>Directions: Compare the following states of matter. Write Yes if the statement will answer the state of matter and No if it is not.<br><table>
<tr><th>Description</th><th>Solid</th><th>Liquid</th><th>Gas</th></tr>
<tr><td>1. It can be touched.</td><td></td><td></td><td></td></tr>
<tr><td>2. It can be seen.</td><td></td><td></td><td></td></tr>
<tr><td>3. It has definite shape.</td><td></td><td></td><td></td></tr>
<tr><td>4. It has volume.</td><td></td><td></td><td></td></tr>
<tr><td>5. It takes the shape of the container.</td><td></td><td></td><td></td></tr>
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<td>Guide Questions:<br>1. What are the materials found in your assigned area?<br>2. Classify the materials you found as solid, liquid, or gas.<br><br>The teacher will facilitate an interactive discussion. But before the discussion, a member from each group will present their output in class.<br>After the presentation of outputs, the teacher will ask questions to generate concepts from the learners. He/she may ask the following questions.<br>1. What are the materials in the school clinic?</td>
<td>Instructions:<br>Answer the questions below in 1–2 sentences.<br>1. Why is a pencil considered a solid?<br>2. Give an example of a liquid found in your classroom.<br>3. What gas can be found inside the classroom?<br>4. How do you know that paint is a liquid?</td>
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<td>useful to people and society.<br><br>Output will be evaluated using this rubric. This activity shall merit 10 points.<br><table><tr><th colspan="3">PERFORMANCE LEVEL</th></tr><tr><th>Not Yet Demonstrated<br>Score: 0-3</th><th>Partly Demonstrated<br>Score: 4-8</th><th>Clearly Demonstrated<br>Score: 9-10</th></tr><tr><td>Pupil failed to create a story about any state of matter.</td><td>Pupil attempted to create a story about a state of matter, but major elements are missing.</td><td>Pupil completed a story about a state of matter with all the required elements present.</td></tr></table></td>
<td>• • Were there any items that were difficult to classify? Why do you think that was?<br>• ✓ Example: "I found a jar of peanut butter, and I wasn't sure whether to classify it as a solid or a liquid. It's thick and spreadable like a solid, but it can also flow and take the shape of its container like a liquid. I think it's a mixture of both."<br>• • How does understanding the states of matter help us interact with objects in our home environment?<br>• ✓ Example:<br>"Understanding the states of matter helps us know how different substances will behave and how we can use them effectively. For example, knowing that water is a liquid helps us pour it into a glass without spilling."</td>
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<td>School canteen? School garden?<br>-The materials found in the school clinic are dental chairs, tablets, syrup powder medicine, syringe, alcohol, betadine, cotton, gauze buds, ointment, etc.<br>- The materials found in the school canteen are plates, sauce, vegetables, drinks, etc.<br>- The materials found in the school garden are garden tools, soil, plants, pots, water, water container, water hose, etc.<br>- The materials found in the school library are books, newspapers, television, computer sets, printer, etc.<br>2. Classify the materials as solid, liquid, gas.<br>(The teacher will facilitate this part depending on the answer of the students.)<br>3. What can you say about the materials found in the different areas in the school?<br>- There are different materials found in school. These materials can be classified as solid, liquid, and gas.</td>
<td>5. Why is a book not a gas?</td>
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<tr>
<td>D. Making Generalization</td>
<td colspan="2">What have you learned? Fill out each box in the chart below.</td>
<td colspan="3">The teacher can ask the learners the importance of knowing the different materials that we see around.</td>
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| ☐ **Learners' Takeaways**<br><br>☐ **Reflection on Learning** |  | | | | |
| **IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION** | | | | | |
| **A. Evaluating Learning** | | | | | |
| **Formative Assessment** | **Instructions:** Look at the objects listed below. Write whether each one is a **solid**, **liquid**, or **gas**.<br>1. Ice cube<br>2. Water in a glass<br>3. Steam from boiling water<br>4. Spoon<br>5. Juice | **Instructions:** Write **solid**, **liquid**, or **gas** based on the state of matter of each item.<br>1. Cooking oil<br>2. Blanket<br>3. Perfume spray<br>4. Book<br>5. Dishwashing liquid | **Instructions:** Circle the correct answer.<br>1. Eraser<br>a. Solid<br>b. Liquid<br>c. Gas<br>2. Hand sanitizer<br>a. Solid<br>b. Liquid<br>c. Gas<br>3. Oxygen we breathe<br>a. Solid<br>b. Liquid<br>c. Gas<br>4. Paint in a bottle<br>a. Solid<br>b. Liquid<br>c. Gas<br>5. Book<br>a. Solid | Given below are materials/things that we can see at home and in the classroom. Identify what specific materials you can see, or you can connect in each material/thing and classify them as solid liquid gas. The first one is done for you.<br><br><br>1. SOLID – different vegetables, boiled egg, salt<br>LIQUID – fish sauce, water, liquid seasonings<br>GAS – LPG used in cooking<br>Source: https://www.maggi.ph/recipes/special-chopsuey/ | Directions: Choose the letter of the best answer. Write the chosen letter on a separate sheet of paper.<br><br>1. Helen walks to school every day. One afternoon, when she was on her way back to their house, it rained very hard. "Aha! It is good that I brought with me my umbrella", she said. The rain is an example of _____.<br>A. solid |

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| | | | b. Liquid<br>c. Gas | <br>SOLID –<br>LIQUID –<br>GAS –<br>2.<br>Source: https://www.britannica.com/science/aquarium<br><br>SOLID –<br>LIQUID –<br>GAS –<br>3.<br>Source: https://www.vecteezy.com/photo/26741845-cc<br>genrative-ai<br><br>SOLID –<br>LIQUID –<br>GAS –<br>4.<br>Source: https://starfishflorist.com.au/products/bun<br><br>SOLID –<br>LIQUID –<br>GAS –<br>5.<br>Source: https://www.bonappetit.com/recipe/halo-ha | B. liquid<br>C. gas<br>D. solid and gas<br>2. A ripe mango is yellow. Which characteristic of solid determines the underlined word?<br>A. size<br>B. shape<br>C. color<br>D. texture<br>3. Which of the following materials is gas?<br>A. smoke<br>B. water<br>C. alcohol<br>D. paper<br>4. Which of the following is NOT true? A. Solid has weight and occupies space.<br>B. Liquid flows and takes the shape of the containers.<br>C. Gas is everywhere. It has weight and it occupies space.<br>D. Liquid and gas have no weight but occupy space.<br>5. Which of the following statement is true? |

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| | | | | | A. Solid objects and materials can be classified as to color, size, shape, and texture. B. Gas cannot fill the shape of the container. C. Liquid flows and has no weight.<br>D. Solid, liquid, and gas can be classified according to shape and odor only |
| **Homework** | | | | | |
| **B. Teacher's Remarks:** | Note observations on any of the following areas: | **Effective Practices** | **Problems Encountered** | | |
| | ***strategies explored*** | | | | |
| | ***materials used*** | | | | |
| | ***learner engagement/ interaction*** | | | | |
| **C. Teacher's Reflection** | *Reflection guide or prompt can be on:*<br>• • *principles behind the teaching*<br><br>*What principles and beliefs informed my lesson?*<br>*Why did I teach the lesson the way I did?*<br>• • *students*<br><br>*What roles did my students play in my lesson?*<br>*What did my students learn? How did they learn?*<br>• • *ways forward*<br><br>*What could I have done differently?* | | | | |

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| | *What can I explore in the next lesson?* | |

**PREPARED BY:**