Teacher: Mr. Edwards Date: 9/9-13 Subject: Science Period:4-5,7

COS Standard:

SCI.5.1.1: Define microscopic matter.

SCI.5.1.2: Compare and contrast objects (e.g., empty and filled balloon) to show evidence of matter.

SCI.5.1.3: Identify matter that exists but cannot be seen (e.g., germs, water molecules, gases). SCI.5.1.4: Research media to identify various microscopic forms of matter.

Outcome(s)/Objective(s)/I can statement:

- I can define microscopic matter.
- I can compare and contrast objects to provide evidence of matter.
- I can identify matter that exists but cannot be seen.
- I can research and identify various microscopic forms of matter.

ACTIVATING LEARNING STRATEGY/STRATEGIC TEACHING STRATEGIES:

 $\Box$  KWL  $\Box$  Word Splash  $\Box$  Anticipation Guide  $\Box$  Lecture  $\Box$  Graphic Organizer/VLT  $\Box$  Poem, Rhymes, etc.

□ Survey □ Possible Sentence □ Think-Pair-Share □ Reading □ Pictograph □ Acronyms/Word

□ First Word □ Concept Map □ Vocabulary Overview □ Model □ Diagram □ Other: Hands-on experiment

□ Word Map □ Frayer Model □ Daily Language Practice (DLP)\_\_\_\_\_

 $\Box$  Hands-on  $\Box$  Mind Map/Visual Guide

**Engagement Strategies:** 

 $\Box$  - Collaborative Group Work  $\Box$  - Writing to Learn  $\Box$  - Literacy Groups  $\Box$  Other: Hands-on Activity

 $\Box$  - Questioning Techniques  $\Box$  - Scaffolding Text  $\Box$  -Classroom Talk  $\Box$  - T.W.I.R.L.

Technology Integration:

□ Smart board □ Document Camera □ IPADS □Mac Books □ Computers □ Kindles □ Interactive Tablets □ Digital/ Video Camera

□ Clickers □ ACCESS □ Computer Program: \_\_\_\_\_ □
Other: \_\_\_\_\_

PROCEDURAL CONTENT (application):

Monday

Essential Question: What is microscopic matter, and how can we observe its effects? Daily Objective(s): Define microscopic matter and identify examples.

I Can Statement: I can define microscopic matter and identify it in everyday examples.

Preview (Before) Warm-up- Hook: Show a video clip or image of microscopic organisms or particles.

Instruction (During):

- I Do: Define microscopic matter using visuals and examples.

- We Do: Explore examples of microscopic matter in pairs using images and digital tools.

- Y'all Do: Discuss findings as a class.

- You Do: Write down three examples of microscopic matter in your science journal.

Small Groups: Explore different examples of microscopic matter using microscopes or digital simulations.

After/Homework: Research and list three additional examples of microscopic matter not discussed in class.

Certainly! Here's how you can complete the lesson plan for Tuesday through Thursday:

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Tuesday

Essential Question: How can we provide evidence that matter exists, even if it cannot be seen?

Daily Objective(s):

- Compare and contrast objects, such as an empty and filled balloon, to demonstrate the presence of matter.

- Identify matter that exists but cannot be seen, like gases and microscopic particles.

I Can Statement:

- I can compare objects to show evidence of matter.

- I can identify matter that cannot be seen with the naked eye.

Preview (Before) Warm-up- Hook:

- Begin with a demonstration: Show an empty balloon and then fill it with air. Ask students to describe what has changed and why.

Instruction (During):

- I Do: Explain how matter can exist in forms that are not visible to the naked eye. Use the balloon as an example to demonstrate the presence of air (a form of matter) inside it.

- We Do: In pairs, students will compare other objects, such as an empty bottle and a filled one, or a deflated vs. inflated ball, discussing the evidence of matter.

- Y'all Do: Groups share their findings with the class, discussing how they know matter is present.

- You Do: Individually, students will write a short explanation in their journals about how the demonstration shows the presence of matter.

Small Groups:

- Hands-on activity where students use different objects (e.g., balloons, syringes without needles, etc.) to explore and document the presence of gases and other invisible matter.

After/Homework:

- Students will research and bring in an example of an everyday object that contains invisible matter (e.g., a perfume bottle with air freshener, a sealed bag with food, etc.).

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Wednesday

Essential Question: What are some examples of matter that exist but cannot be seen, and how do they impact our lives?

Daily Objective(s):

- Identify and provide examples of matter that exist but cannot be seen, such as germs, water molecules, and gases.

I Can Statement:

- I can identify matter that exists but cannot be seen and explain its significance.

Preview (Before) Warm-up- Hook:

- Show a brief video or image of germs or molecules, asking students to guess what they are seeing.

Instruction (During):

- I Do: Discuss the concept of matter that is invisible to the naked eye, using germs and water molecules as key examples.

- We Do: As a class, brainstorm a list of invisible forms of matter and their importance in daily life (e.g., oxygen we breathe, germs on surfaces).

- Y'all Do: In small groups, students will choose one example from the list and create a visual or poster explaining why it is an important form of matter.

- You Do: Individually, students will write a paragraph in their journals describing one form of invisible matter and its role in the world.

Small Groups:

- Collaborative project where groups research one type of invisible matter and create a digital or physical presentation to share with the class.

After/Homework:

- Research and write a short essay on how an invisible form of matter (e.g., oxygen, carbon dioxide) is crucial to life on Earth.

## Thursday

Essential Question: How can we use technology and media to research and identify various microscopic forms of matter?

Daily Objective(s):

- Research media to identify various microscopic forms of matter, such as bacteria, viruses, and atoms.

I Can Statement:

- I can use technology to research and identify microscopic forms of matter.

Preview (Before) Warm-up- Hook:

- Start with a short interactive quiz or game that tests students' knowledge of microscopic matter based on the previous lessons.

## Instruction (During):

- I Do: Demonstrate how to use online resources, videos, and articles to research microscopic forms of matter. Provide an example by researching a common virus or bacteria and showing the process.

- We Do: As a class, research another example of microscopic matter using the internet or a digital resource, and compile the findings.

- Y'all Do: In small groups, students will choose a specific microscopic form of matter (e.g., a specific bacterium, virus, or particle) and use technology to gather information. They will create a digital presentation or report on their findings.

- You Do: Each student will summarize their group's research and explain what they learned about their chosen microscopic form of matter.

Small Groups:

- Continue group research and begin creating presentations on selected microscopic forms of matter.

After/Homework:

- Complete the group presentation and prepare to present it on Friday.

Assessment (Formative):

- □ Class work
- □ Notebook
- □ Homework
- □ quizzes
- □ Tests
- $\hfill\square$  Computer activities

 $\hfill\square$  Collaborative work

□ Project

 $\hfill\square$  Other: Daily journal entries on microscopic matter

Proficiency Scale

Score 4.0: Student can provide multiple examples of microscopic matter and explain their significance in everyday life.

Score 3.0: Student can define microscopic matter and identify examples.

Score 2.0: Student can define microscopic matter but struggles to identify examples.

Score 1.0: Student struggles to define or identify microscopic matter.