

| Grade 5  | Science | Week 4 |
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| <b>Lesson Title:</b> What makes up matter?   |         |        |
| <b>Weekly Learning Targets:</b> Students can use models to investigate that matter is made up of particles that are too small to be seen.  |         |        |
| <b>Next Generation Science Standards</b><br><b>5.PS1.1</b> – Develop a model to describe that matter is made of particles too small to be seen.  |         |        |
| <p style="text-align: center;"><b>MONDAY</b></p> <p><b>Daily Learning Target:</b> Students can define and explain matter.</p> <p><b>Learning Tasks:</b> <b>Note:</b> Some of this lesson was borrowed from here. (SM A)The teacher can begin the class by asking the students what they already know about matter. The teacher can right this information on the board. After, the class can watch this introductory video about matter (SM A) After watching, the class can add or clarify the information written down before. The teacher can introduce the essential idea/question: “Everything in the universe is made of matter, which is constructed of particles that are too small to be seen; the ways in which these particles interact are what give matter its structure and properties.” The students can then read and do exercise #1 on page 9. After, the teacher can give the students the task of sorting matter and non-matter materials (SM B). Students can use these notes (SM C) for reference. Then on the recording sheet (SM D), the students will write whether or not an object is matter and commonalities between the items in the same group.</p> <p><b>Daily Formative Assessment:</b> The teacher can check exercise #1 on page 9 and the students’ recording sheets.</p> <p style="text-align: center;"><b>TUESDAY</b></p> <p><b>Daily Learning Target:</b> Students can explain how matter is made up of small particles.</p> <p><b>Learning Tasks:</b> <b>Note:</b> Some of this lesson was borrowed from here. (SM E)The teacher can review the previous lesson and ask students what they remember about matter. The teacher can write this on a poster or board to reference throughout the unit. After discussing, the teacher can refer back to the essential idea and show this video (0:00-4:05 &amp; 9:00-12:25) explaining atoms. (SM F) To begin the students can watch this video about forms of energy (SM C). The students can write the forms of energy they hear and give an example of each in their science journal as they watch. After discussing the video, the students can redo the mystery energy stations (SM B) from Monday. The students can compare/switch their answers. If there is time, the teacher can recap the lesson and preview the next one. After, the students can use resources (textbook, dictionary, internet, etc.) to find definitions for atoms, molecules, and element. The class can then discuss and create one definition together. Then, the students can read and answer exercises on page 12 in the textbook about atoms. The textbook also has information on elements on page 10 and molecules on page 15.</p> <p><b>Daily Formative Assessment:</b> The teacher can give feedback on the students’ definition and exercise on page 12.</p> <p style="text-align: center;"><b>WEDNESDAY</b></p> <p><b>Daily Learning Target:</b> Students can explain the different parts and characteristics of matter.</p> <p><b>Learning Tasks:</b> <b>Note:</b> Some of this lesson was borrowed from here. (SM E) The teacher can review yesterday’s work and inform the students they will be finishing the class poster they started yesterday. The teacher can separate the students into small groups to research and present information about certain topics, or the class can do it as a whole. The teacher can have resources already prepared for students.</p> <p><b>Daily Formative Assessment:</b> The teacher can give feedback on the material collected for the class poster.</p> <p style="text-align: center;"><b>THURSDAY</b></p> <p><b>Daily Learning Target:</b> Students can develop models describing matter is made of particles too small to be seen.</p> <p><b>Learning Tasks:</b> At the beginning of class, the teacher can review everything the students learned so far this week and refer to the matter poster. Then, the teacher can pose the question how can we show atoms? Then, the teacher can follow the following demonstrations and lesson plans (SM H). In summary, the students will</p> |         |        |

demonstrate the movement and presence of atoms in different ways and record the results.

**Daily Formative Assessment:** The teacher can check the students' records.

#### FRIDAY

**Daily Learning Target:** Students can develop models describing matter is made of particles too small to be seen.

**Learning Tasks:** The teacher can review the previous lessons and the students' results from the previous day.

Then, the teacher is going to invite the students to think about a demo that they can do to show that particles of matter exist even though they are too small to be seen. (SM I) Students will write down what materials they need and the basic steps of the demonstration. More importantly, students must give evidence of proof. Students can use previous demonstrations as a guide.

**Daily Formative Assessment:** The teacher will check the students' work in SM I.

#### Grade 4– Science – Week 4

#### MATERIALS / RESOURCES

pencil, poster board, periodic table of elements, reference materials

**A** – Intro to Matter - <https://betterlesson.com/lesson/627155/introduction-to-matter-plaid-pete-seth-sort-out-their-homework>

**A** – What's Matter? - <https://www.youtube.com/watch?v=ELchwUIIWa8>

**B** – Matter Picture Cards - <https://betterlesson.com/lesson/resource/3127163/what-s-the-matter-plaid-pete-sort-cards-lesson-12>

**C** – Matter Reference Sheet - <https://betterlesson.com/lesson/resource/3360424/plaid-pete-s-notes-on-matter>

**D** – Matter Sorting Response Paper - <https://betterlesson.com/lesson/resource/3127161/what-s-the-matter-plaid-pete-lab-sheet-lesson-12a>

**E** – Particles of Matter Lesson Plan - <https://betterlesson.com/lesson/644582/the-particles-of-matter>

**F** – Bill Nye Cheese Atom - [https://www.youtube.com/watch?v=TDLbf\\_NUpGo](https://www.youtube.com/watch?v=TDLbf_NUpGo)

**G** – Matter Poster - <https://betterlesson.com/lesson/resource/3269638/matter-poster-jpg>

**H** – Matter Model Demonstrations - <https://www.acs.org/content/dam/acsorg/education/resources/k-8/inquiryinaction/student-activity-sheets/grade-5/chapter-1/g5-l1.1-matter-is-made-of-particles.pdf>

**I** – Matter Particles Demonstration - <https://www.teacherspayteachers.com/Product/Matter-is-Real-Demonstration-5th-Grade-NGSS-5-PS1-1-3434067>

#### Additional Resources

5<sup>th</sup> Grade Structure and Properties of Matter - <https://ngss.nsta.org/Resource.aspx?ResourceID=154>

Lesson Plans Matter - <https://docplayer.net/55840136-Lesson-plan-models-matter-by-darby-feldwinn.html>

What is Matter Lesson Plan - <http://seplessons.ucsf.edu/node/351>