District Science Department

Supports for Remote Learning Grade 5

Strand 5.2 Properties and Changes of Matter All substances are composed of matter. Matter is made of particles that are too small to be seen but still exist and can be detected by other means. Substances have specific properties by which they can be identified. When two or more different substances are combined a new substance with different properties may be formed. Whether a change results in a new substance or not, the total			
Standard	**Resource/Link/PDF**	**Description**	**Teacher Tip**
5.2.1 Develop and use a model to describe that matter is made of particles on a scale that is too small to be seen. Emphasize making observations of changes supported by a particle model of matter. Examples could include adding air to expand a balloon, compressing air in a syringe, adding food coloring to water, or dissolving salt in water and evaporating the water. The use of the terms atoms and molecules will be taught in Grades 6 through 8. (PS1.A)	Particles of Matter Investigationr Particles of Matter Investigation PDF 5.2.1 Properties of Matter Reading PDF	Students **carry out an investigation** about matter being made of particles too small to be seen. Students will need the following materials: • Paper • Materials from around their home • Fan or hair dryer (students can use their breath if they do not have this item) After the investigation students read an article about the properties of matter, analyze a table of information about properties of matter, and provide evidence from the reading and table for why these properties would be helpful in identifying substances.	*The 5.2 lessons are in sequential order. Prior to the investigation **students record 3-5 questions** about blowing on paper.
5.2.1 Develop and use a model to describe that matter is made of particles on a scale that is too small to be seen. Emphasize making observations of changes supported by a particle model of matter. Examples could include adding air to	States of Matter Investigation States of Matter Investigation PDF	Students **plan and carry out an investigation** with liquids a glass and ice. Students will need the following materials: • A glass • Water	Prior to the investigation **students record 3-5 questions** about a glass of ice water. Students can us this graphic organizer as a scaffold for **developing a model.**

expand a balloon, compressing air in a syringe, adding food coloring to water, or dissolving salt in water and evaporating the water. The use of the terms atoms and molecules will be taught in Grades 6 through 8. (PS1.A)	Physical Properties Reading PDF Developing a Model Graphic Organizer PDF	• Ice • Liquids other than water After the investigation students develop a model of the system, read an article about physical changes of matter, analyze a table of information about properties of matter, and provide evidence from the reading and table for why these properties would be helpful in identifying substances.	
5.2.1 Develop and use a model to describe that matter is made of particles on a scale that is too small to be seen. Emphasize making observations of changes supported by a particle model of matter. Examples could include adding air to expand a balloon, compressing air in a syringe, adding food coloring to water, or dissolving salt in water and evaporating the water. The use of the terms atoms and molecules will be taught in Grades 6 through 8. (PS1.A)	Newsela: Matter and Energy Reading Matter and Energy: What is matter? PDF	In this reading students explore the states and changes in matter.	Adjust reading level to 550L. The higher levels refer to disciplinary core ideas that are intended for 6th and 8th grade SEEd Standards. Prior to **students obtaining information** from the text they record a response to the following questions. Imagine you are sitting at home and the smell of freshly baked cookies wafts toward your nose. • Where does this smell come from? • What is it made of?
5.2.1 Develop and use a model to describe that matter is made of particles on a scale that is too small to be seen. Emphasize making observations of changes supported by a particle model of matter. Examples could include adding air to expand a balloon, compressing air in a syringe, adding food coloring to water, or dissolving salt in water and evaporating the water. The use of the terms atoms and molecules will be taught in Grades 6 through 8. (PS1.A)	Newsela: States of Matter Model Newsela: States of Matter Model PDF	This is a model of states of matter.	**Students obtain information** using this model after they have developed an initial model of states of matter (lesson Particles of Matter). After observing the model, they can revise their initial models.

5.2.2 **Ask questions** to plan and carry out investigations to identify substances based on patterns of their properties. Emphasize using properties to identify substances. Examples of properties could include color, hardness, conductivity, solubility, or a response to magnetic forces. Examples of substances could include powders, metals, minerals, or liquids. (PS1.A)	Properties of Substances Investigation Properties of Substances Investigation PDF	Students **carry out an investigation** and identify substances based on the patters in their properties. Students will need the following materials: • 3 white powder substances (baking soda, baking powder, salt, sugar) After the investigation students read an article about the properties of matter and then develop a model.	Prior to the investigation **students record 3-5 questions** about the different substances.
5.2.2 **Ask questions** to plan and carry out investigations to identify substances based on patterns of their properties. Emphasize using properties to identify substances. Examples of properties could include color, hardness, conductivity, solubility, or a response to magnetic forces. Examples of substances could include powders, metals, minerals, or liquids. (PS1.A)	Mystery Science Mini-Lesson	6-minute video that investigates how substances glow in the dark by learning about their properties. Students should spend 15-20 minutes on this lesson.	Prior to watching the video **students record 3-5 questions** about glowsticks and glow in the dark stars. After the video students record patterns of the properties glowsticks, fireflies, mushrooms, and microscopic organism in the ocean. After the video students write a claim with one piece of evidence to support or dispute if a new substance was formed when the glowstick lights up.