

“WHY MATTER MATTERS”

A play to teach the forms of matter by Sharon Solomon

Characters

Miss Matter, the teacher Narrator Team 1 Team 2 The Class

Vocabulary

condense, evaporate, freeze, heat, matter, melt, texture, water vapor

Scene One

Vaportown Elementary School

Narrator: Miss Matter is teaching a science lesson about solids, liquids, and gases.

Teacher: Class, as you know, we have been studying about matter. Matter is anything that takes up space, such as solids, liquids and gases. To practice for our quiz, I’m going to ask you some questions. Just answer true or false. Ready?

Class: Yes, Miss Matter.

Teacher: Question number 1: Solid matter does NOT change shape or size.

Class: True.

Teacher: Good! Question number 2: Liquids, gases and solids all have texture.

Class: True- er- false-huh?

Teacher: I see you’re not too sure about that one. Texture is the way something feels. Gas doesn’t have a texture, but solids and liquids have texture. Question number 3: Liquids change shape depending on the shape of their container.

Class: True.

Teacher: Very good! Question number 4: All liquids feel alike.

Class: False.

Teacher: Right! Milk and oil have very different textures. Question number 5: Air is a gas that is all around us.

Class: False-er-true-huh?

Teacher: It is TRUE that air is a gas and that it IS all around us. We just can't see it. Here's another one. Question number 6: Air takes up space.

Class: True.

Teacher: I'm glad you remember how air fills balloons and plastic bags. I'm proud of you. Just one more question: Matter can change from liquid to gas or from gas to liquid.

Class: Er-false-true-huh?

Teacher: Last weekend the water in the glass evaporated. That means the water became a gas or became water vapor. That is liquid turning into gas. Remember?

Class: Yes, Miss Matter.

Teacher: Rain is just water vapor being cooled in the air and changing into liquid. That's called condensing. Bet you can't say condensing three times fast.

Class: Condensing, condensing, condensing!

Teacher: Let's divide into two teams. We'll go outside on a Matter Hunt. Each team needs to find one solid, one liquid, and one gas. Whichever team does it first correctly will be the winner. Bring containers with you. All set?

Class: You bet!

Narrator: The class follows Miss Matter outside to begin the Matter Hunt.

Scene Two On the playground

Team 1: Let's go behind the school away from the swings so we can keep our matter a secret.

Team 2: We'll go over by the jungle gym. Let's talk quietly so Team One won't hear us.

Narrator: Each team begins exploring.

Team 1: Here's a branch that fell from the maple tree. It's a solid.

Team 2: There's a melted crayon on the blacktop. Now that it cooled off, it's a solid again.

Narrator: It begins to rain.

Teacher: Hurry, class! The condensed water vapor is falling on our heads!

Team 2: Quick! Put the bowl on the ground to catch the rain water. Let's go hunt for a gas.

Team 1: Here's some water in a puddle. We'll collect it in this container. Hurry and look for a gas.

Narrator: Just then Team 2 remembered that Billy's bicycle tires had air in them, so he ran to get his bicycle.

Team 2: Miss Matter, we have air in the bicycle tires, a crayon and rainwater. That's a gas, a solid and a liquid.

Teacher: Team 1, what do you have?

Team 1: We have a tree branch for a solid and water for a liquid. We didn't find a gas.

Teacher: Air is a gas that is all around us. Well, it looks like Team 2 wins. Let's go back inside. We're getting wet.

Scene Three

Back in the classroom

Narrator: The wet students return, carrying all their matter.

Teacher: We can have a special treat tomorrow. Team 2 can pick their favorite solids, liquids and gases.

Team 2: We want apple juice for the liquid. We'll eat soft pretzels for the solids. We'd like ice cream, too. That's a frozen liquid, but now it's a solid. We'll decorate with balloons for the gas.

Narrator: Each team made decorations from solid matter.

Team 1: This is fun, even if our team didn't win.

Teacher: Class, I have a special song for you about matter.

Class: Hooray!

(To the tune of "You Are My Sunshine")

You are my solid, you never change shape,

You have texture, color and size.

You'll stay a solid unless you're heated.

So please stay a solid, that's wise.

You are a liquid, and you have texture,

You can be solid if you freeze.

You come in colors and your shape changes,

So stay a liquid, won't you please?

You are a gas and we can't see you,

You change to liquids when you cool.

You can fill bubbles, balls and balloons,

So please stay a gas, THAT'S COOL!!

Teacher: Well, class, now you know why matter matters!