ITQ ARTS AND SCIENCE INTEGRATION
GRADE 3
THEATRE and PHYSICAL SCIENCE

What's the Matter You? Eh! – Creating Character
"Matter and Energy," Investigations 3 and 4
LESSON #2

CONTENT STANDARDS

Theatre Grade Three

1.1 Use the vocabulary of theatre, such as character, setting, conflict, audience, motivation, props, stage areas, and blocking, to describe theatrical experiences.
1.2 Identify the 5 W's (who, what, where, when, and why) in a theatrical experience.
2.1 Participate in cooperative scriptwriting or improvisations that incorporate the 5 W's.
5.1 Develop problem-solving and cooperative skills to dramatize a story or current event from another content area, with an emphasis on the 5 W's.
5.2 Develop problem-solving and communication skills by participating collaboratively in theatrical experiences.

Science Grade Three

PS1e Students know matter has three forms: solid, liquid, and gas.
PS1f Students know evaporation and melting are changes that occur when objects are heated.

ESSENTIAL QUESTIONS *(Questions students might ask about the topic)*

- How can I show what I know with improvisation?
- How can I use my face and body to create character?
- How can I use improvisation to create a play?
- What are the three states of matter here on Earth?
- What are the characteristics of each state of matter?
- How can matter change from one state to another?

OBJECTIVES & STUDENT OUTCOMES *(Students will be able to…..)*

- infer from an improvised scene who the characters are, what they are doing, what they want, where/when the scene takes place and why the events are taking place.
- improvise scenes where the meaning changes when one or more of the 5 W's is altered.
- demonstrate cooperative learning skills.
- define and be able to physically demonstrate the characteristics of matter.
- make predictions, report observations and form inferences.
- improvise a scene about the change of a solid to a liquid to a gas through the use of heat.

ASSESSMENT (*Various strategies to evaluate effectiveness of instruction and student learning)*

- **Feedback for Teacher**
  - Observation of improvised scenes
  - Video
  - Feedback
- **Feedback for Student**
  - Teacher and Peer Feedback
  - Video

WORDS TO KNOW

Theatre Grade 3

- **character:** the personality or part an actor recreates
- **conflict:** the opposition of persons or forces giving rise to dramatic action in a play
- **gesture:** an expressive movement of the body or limbs
- **improvisation:** a spontaneous style of theatre in which scenes are created without advance rehearsing or scripting.
- **posture:** a position the body can assume in sitting, standing, kneeling or lying down that gives clues

to a frame of mind or attitude toward someone or something

- **pantomime:** acting without words through facial expression, gesture, and movement
- **personification:** giving human traits to non-living objects
- **scene:** a location at which an event or action happens
- **setting:** the surroundings or environment in which a scene or character is found

Physical Science Grade 3

- **evidence:** data used to support claims. Evidence is based on observation and scientific data
- **gas:** matter that is shapeless and expands to fill a closed container
- **gesture:** an expressive movement of the body or limbs
- **liquid:** matter that flows and takes the shape of the container it is in
- **matter:** anything that has mass and takes up space
- **observation:** something that can been seen
- **solid:** matter that has a definite shape

MATERIALS

- 5 W's Planning Chart (included)
- **Solid**, **Liquid** and **Gas** picture (included)
- Plastic Water Bottle with Water

RESOURCES

- *SDUSD Core Learnings*: http://www.sandi.net/204510720114515653/site/default.asp
- Online improvisation lesson videos: http://www.ehow.com/video_4949233_improv-yes-lets.html
- The benefits of improv in addressing multiple intelligences web article. http://www.improvwarrior.com/benefits.html
- *Theatre Games for the Classroom*, Viola Spolin (available on Google Books at http://tinyurl.com/spolinbook)
- *FOSS Kit* 3rd Grade, "Matter and Energy," Investigations 3 and 4
- *What is the World Made Of?* by Kathleen Weidner Zoehfeld
- *States of Matter* by Fiona Bayrock
- *Solids and Liquids* by David Glover
- The websites below are a few resources to help explain how matter changes from:
    - http://www.blurtit.com/q119885.html
    - http://encyclopedia.kids.net.au/page/ph/Phases_of_matter
    - http://idahoptv.org/dialogue4kids/season7/matter/facts.cfm
    - http://jmsalsich.edublogs.org/2010/05/31/liquid-nitrogen/

PREPARATION

- 1 Copy of 5 W's Planning Chart
- 1 Copy **Solid**, **Liquid**, **Gas** picture to display
- Review Investigation 3 in FOSS *Matter and Energy*

WARM UP *(Engage students, access prior learning, review, hook or activity to focus the student for learning)*

(10 minutes)

- Briefly review with the students how in lesson #1 they made carefully **observations** of the **actor's gestures** and **posture**. Then based on those **observations** inferred from the evidence they noted, what emotion the **actor** was playing.
- Tell the students they are going to do a similar activity for today's warm up using **pantomime.**
- Write the word **pantomime** and definition on the board or overhead.
- Instruct students to sit in a circle.
- Ask the students to help come up with a list of tasks that can be **pantomimed**. (i.e. sweeping the sidewalk, reading a book, brushing their teeth)
- Explain to the students you will need one volunteer, *A*, who's job it is to make careful **observations** then infer from the **evidence** what emotion is being expressed in the **pantomime**.
- Tell student *A* to step outside while the rest of the class chooses an emotion to use when pantomiming a task. (Explain it as 'a word that describes how you can pantomime things, like happily, nervously or angrily.)

- Once the class has chosen an emotion to use in their pantomime, invite the student *A* to return.
- Student *A* is to call on three or four students to stand up.
- Student *A* should ask the students who are standing to pantomime a task. (i.e. sweeping the sidewalk, reading a book, brushing their teeth)
- The students should pantomime the task in the manor of the word they have chosen.
- Through careful **observation** of the performers, student *A* needs to infer from the **evidence** which emotion the actors are showing in their **pantomime**. Student *A* is allowed three changes of group and/or tasks to be pantomime to **observe** before inferring which emotion they are **pantomiming**.
- If time permits, select another student to step outside and repeat the activity.

MODELING *(Presentation of new material, demonstration of the process, direct instruction)*
(20 minutes)

- Have students return to their seats.
- Tell students that they are going to create a piece of theatre using what they know about the three states of **matter** and how **matter** can change from one state to another.
- Ask the students what they know about matter.
- Review the three states of **matter; solid, liquid** and **gas**.
- Display for the students a bottle of water.
- Ask the students to **observe** the bottle and infer which part is a **solid**, **liquid** or **gas**.
- Ask students what **matter** is made of. [atoms and molecules]
- Display **solid**, **liquid**, **gas** image.
- In **solids** the atoms and molecules are very tightly connected. Have students demonstrate this with **posture**, **gesture** and facial expression. First by themselves, then with a partner, then with a group of three.
- In **liquids** the atoms and molecules are more loosely connected. The molecules slide by each other. Have students demonstrate this with **posture**, **gesture** and facial expression. First by themselves, then with a partner, then with a group of three.
- In **gases** the atoms and molecules are very, very loosely connected and the molecules bump into each other. Have students demonstrate this with **posture**, **gesture** and facial expression, remind them though they do not need to actually bump into each other. First by themselves, then with a partner, then with a group of three.
- Ask students if a **solid** can become a **gas**. What would have to happen for an ice cube to become a **gas**? Chart the steps (apply heat to melt and then turn into vapor)
- *Say:*
  - *We are now going to perform in a short play about an ice cube that wants to become a gas.*
  - *In order to do this we have to give an inanimate (not living) object human like characteristics. This is called **personification**. We are going to make the ice cube do things human beings would do. This **character** is going to change during the course of the play so we are going to show that through our faces, bodies and voices.*
  - *Plays have a certain structure. They must have a beginning, middle and end. They must also convey the 5 W's that you use in a lot of your writing. Who can tell me what the 5 W's are?*
- Chart the responses (who, what, where, when, and why). Share the "5 W's Planning Chart" with the students.
- For our play, who is going to be the main **character**? [ice cube]
- What does the main **character** want? [to become a gas]
- As a group fill in the rest of the chart.
- *Say:*
  - *Now that we have a basic idea about what happens in our play, we are going to do an **improvisation**.*
  - ***Improvisation** is when we act out a **scene** on the spot. We make it up as we go along. There is no script.*
  - *There are going to be three **characters** in this **improvisation**, the ice cube, a pot and the flame. Remember that for melting and evaporation to happen there must be heat.*
- Ask for three student volunteers to play each **character**. Remind them of the basic plot; the ice cube wants to become a gas. To do that he/she must be heated to melt into a **liquid** and then evaporate

into a gas.
- Students improvise the **scene**. Side coach them as necessary with suggestions for action.

GUIDED PRACTICE *(Application of knowledge, problem solving, corrective feedback)*
(15 minutes)
- Divide the class into groups of three.
- In their groups of three, using the same chart filled out in the modeling section, each group will do their own improvisation.
- Encourage students to create their own dialogue and not to just copy what was done by the volunteer students in the modeling section.
- At the same time, in different parts of the room, each group improvises the same **scene** as outlined on their "5 W's Planning Chart."

DEBRIEF & REFLECT *(Identify problems encountered, ask and answer questions, discuss solutions and learning that took place. Did students meet outcomes?)*
(5 minutes)
- Bring class back together.
- Have one group demonstrate their **improvisation**.
- *Ask:*
  - *How did the storyteller's movements, **gestures**, voice, and expressions help develop the **character**?*
  - *How did the movements, gestures, voice, and expressions show the **conflict** and solution?*
  - *What was convincing about the **character's** actions and what could the **character** have done to make the **scene** stronger?*
  - *How could you tell the **setting** of this **scene**? What did the actors do to show **setting** to the audience?*
  - *What did you learn about the qualities of a **solid**? A **liquid**? A **gas**?*
  - *How can a **solid** change to a **gas**?*
  - *What did you learn about the atoms and molecules in a **solid**, **liquid** and **gas**?*

EXTENSION *(Expectations created by the teacher that encourage students to participate in further research, make connections, and apply understanding and skills previously learned to personal experiences.)*
- Videotape the **improvisation** for the class to watch.
- Apply the same technique to create a improvisation from another curricular area.

5 W's Planning Sheet

Who? Who is the main Character? Use adjectives to describe the character.	The main character is _____. The main character is _____, _____ and _____.
What? What does the main character want to do? What is standing in his/her way?	The main character wants to _____ _____ But can't Because _____ _____ _____ _____ _____.
Where? Where does the setting take place? Use adjectives to describe the setting.	The setting takes place _____ _____. It looks/sounds/feels _____ _____ _____ _____.
When? What Time of day? What time of year?	This story takes place during the season of _____ at _____ am/pm.
Why? Why does the main character want to do this?	_____ wants to _____ because _____ _____ _____.