

Notes/Reflections:

Technology Extension

During the student performances of the tableau, digital pictures or video should be taken for integration on a final group presentation of a Thinglink (<https://www.thinglink.com/>). The class will work in groups to create a Thinglink example of their physical or chemical change. They may link their digital pictures or videos to a place in the artwork. Other content to include on the Thinglink should be the definition of the physical or chemical change, other examples of the physical or chemical change, why the change is important, and a definition of a tableau.

Technology Resources

Thinglink <https://www.thinglink.com/> (also available as an app for Android and iOS devices)

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Using Tableau to Explore Physical & Chemical Changes

Students will explore the art form of tableau and then use this art form to dramatize both physical and chemical changes. Students will begin with a warm-up of drama exercises that will explore small group tableau. Students will then work as a class to discuss and review the science terminology and characteristics that classify a physical change versus a chemical change. Small groups will each be given a task on an index card of a specific type of change (ie. melting chocolate). In small groups, students will determine whether the change is physical or chemical and then they will create a 2-part tableau dramatizing the change. They will practice transitioning from the first part to the second part of the tableau. Next, they will be asked to add dialogue to their tableau that supports their argument of whether the change is physical or chemical. Small groups will share their tableau with the class and a class reflection/discussion will take place.

Essential Question: How can theatrical techniques increase comprehension in other subject areas?

Process:

Introduce the art form of tableau with a warm-up: Silent Tableau

- Students will form small groups
- Groups will be asked to form various shapes within their groups silently
- Groups will then be asked to form various scenarios within their groups silently
- Dialogue will be added into the silent scenes through thought-tracking
- Groups will practice forming 2- part tableau of a particular scenario (ex: On a picnic and it begins to rain)

Review the Science Concept: Physical vs. Chemical Changes

- Model by tearing up a piece of paper
- Ask class if this was a physical or a chemical change
- As a class, create an anchor chart that lists the characteristics that classify a physical vs. a chemical change

Anchor Chart:

Physical Change Characteristics

- The change that occurs does not result in new substance forming, the change is usually reversible

Chemical Change Characteristics

- Results in the formation of a new substance
- New materials that form are irreversible

- Give out directions for the small group task
- Announce that each group will be given an index card that includes a change on it and the group is responsible for discussing the change and determining whether it is a physical or a chemical change

Examples of Index Cards:

- Melting chocolate
- Water freezing into ice
- Mixing paint to make a new paint color
- Lighting a match
- Frying an egg
- Light bulb getting hot

- Groups will form 2 tableau that will dramatize the change that occurred
- In each change, students will create dialogue that helps support the type of change that occurred
- Groups share out their tableau in a non-formal class performance
- The goal is for the audience to be able to determine the materials that changed and whether it was a physical or chemical change based on the performance

Peer Feedback and Class Reflection

- What did you like or notice about this group's performance?
- Can you tell which type of change they were dramatizing?
- How did they include characteristics of the change in their performance?
- How did the tableau and dialogue support this?
- What have we learned today about physical & chemical changes?
- How did using tableau help us explore this topic?

Materials

- Tableau Preparation Sheets
- Anchor Chart Paper
- Markers
- Index Cards
- Pencils

Vocabulary

Tableau

A "living picture" in which actors pose and freeze in the manner of a picture or photograph

Dialogue

A conversation between two or more persons

Scenario

The outline of action in a play

Thought-Tracking

Drama technique in which individuals participating in a tableau, or members of the class observing a tableau, are invited to speak the thoughts or feelings of a portrayed character aloud

Physical Change

A change from one state of matter to another without a change in chemical composition

Chemical Change

A change that produces one or more new substances and may release energy

States of Matter

The distinct forms that different phases of matter take on: solid, liquid, gas, and plasma

Substance

A type of matter that has a unique set of properties

Material

Relating to, derived from, or consisting of matter

Heat

The movement of thermal energy from one place to another

Reversible Changes

A change that can be undone; often called a physical or temporary change

Irreversible Changes

A process that is not reversible

Classroom Tips

Use cueing methods when directing tableau in your classroom:

"3-2-1- Freeze" and "Actor's Neutral"

Make your expectations for the tableau science task explicit and go over these before the group work begins. Write them up so that students can refer back to them if they need to during their group working time.

Assessment

Formative assessment—tableau and dialogue performed, anecdotal notes when observing students working in small groups, class reflection/ discussion

Summative Assessment—students fill out a Tableau Preparation Sheet when working on devising their tableau together. The sheet could then be used as a summative assessment of skills.

**If time permits, Exit Tickets could also "Show What You Know" from today's lesson.

Georgia Performance Standards

SCIENCE

GRADE 5

S5P2: Students will explain the difference between a physical change and a chemical change:

- Investigate physical changes by separating mixtures and manipulating (cutting, tearing, folding) paper to demonstrate examples of physical change
- Recognize that the changes in state of water (water vapor/ steam, liquid, ice) are due to temperature differences and are examples of physical change
- Investigate the properties of a substance before, during, and after a chemical reaction to find evidence of change

THEATER

GRADE 5

TAES5.3: Acting by developing, communicating, and sustaining roles within a variety of situations and environments

National Standards

SCIENCE

NS.5-8.2: As a result of their activities in grades 5-8, all students should develop an understanding of:

- properties and changes of properties in matter

THEATRE ARTS

Standard 2: Acting by assuming roles and interacting in improvisations

Standard 5: Researching by finding information to support classroom dramatizations