



Sheila Kerrigan *What's Up With Gravity? Forces & Motion*
The Mime Who Talks!

Study Guide for

Video Series

About Sheila Kerrigan



Sheila studied mime with CW Metcalf and Tony Montanaro and several other American & European mimes. She co-founded, co-directed and performed original work in twenty states with TOUCH Mime Theater. She directed, wrote, and performed original children's plays for Jelly Educational Theater. She is the author of *The Performer's Guide to the Collaborative Process*. She teaches mime, juggling and "movement for the actor" to young people. She teaches teachers how to use drama and dance to deepen learning in subjects like English, Science, and Social Studies. She works with youth to create original performances about ideas and issues important to the young people.

She is the president of the Southeast Center for Arts Integration. She has taught "Community-Based Performance: Where Art and Activism Intersect" at Duke.

Notes to Teacher

In this video series, I show a sound-and-motion gesture for key vocabulary, then I repeat it. I invite students and teachers to perform the gesture with me. ("see, hear, say, do") You can ask your students to stand while watching, so they can use their whole bodies. Your kinesthetic, aural, and oral learners will remember the vocabulary better if they perform it.

Mime, dance, and drama use the creative instrument everyone has: the body. We can all use our bodies to express our ideas and feelings, even those of us who don't speak English, or who have trouble reading, or with limited mobility. Many of our children who shine when they do mime are kinesthetic learners, and they may struggle in sit-down class work. I was certainly one of those students—in third grade, my desk was in the back row, and I used to jump out of my seat and do a split or cartwheel when the teacher was facing the blackboard. As a teacher, please keep an eye out for the children who show talent as mimes, dancers, or dramatists. Offer them opportunities to use their creativity and expressive bodies in your class. Let them mime a book report or act out a scene from history.

Science Standards Addressed in the Video Series

What's Up With Gravity? Forces and Motion

- 1.P.1 Understand how forces (pushes or pulls) affect the motion of an object.
- 1.P.1.1 Explain the importance of a push or pull to changing the motion of an object.
- 1.P.1.3 Predict the effect of a given force on the motion of an object, including balanced forces.

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2.P.1 Understand the relationship between sound and vibrating objects.

2.P.1.1 Illustrate how sound is produced by vibrating objects and columns of air.

2.P.1.2 Summarize the relationship between sound and objects of the body that vibrate – eardrum and vocal cords.

3.P.1 Understand motion and factors that affect motion.

3.P.1.1 Infer changes in speed or direction resulting from forces acting on an object.

3.P.2.1 Recognize that air is a substance that surrounds us, takes up space and has mass.

4.P.1 Explain how various forces affect the motion of an object.

4.P.3.1 Recognize the basic forms of energy (light, sound, heat, electrical, and magnetic) as the ability to cause motion or create change.

5.P.1 Understand force, motion and the relationship between them.

5.P.1.1 Explain how factors such as gravity, friction, and change in mass affect the motion of objects.

Newton's 1st Law

An object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction [unless acted upon by an unbalanced force](#).

Suggestions for Preparatory Classroom Activities

1)

Discuss mime. Below is some information you can use:

English Language Arts RF.4 Know & apply grade-level phonics and word analysis skills in decoding words.

Origin of the Word “Mime”

The origin of the word **mime** (rhymes with “time”) is the same as that of **imitate**, **mimic**, and **pantomime**. In ancient Greek, **pan** or **panto** means everything, and **mimos** means to imitate, act, or dramatize, usually without words, and sometimes as a farce. We use the words mime and pantomime interchangeably.

Definition of Mime

Mime is an art form that uses movement to communicate ideas, feelings, stories, characters, and imaginary worlds. The word “mime” is used as a noun, meaning a person who does mime: “I am a mime.” Many mimes create invisible objects and suggest whole worlds by using only their bodies to communicate. It can also mean the art form: “Mime is the art of silent communication, although not all mimes are silent.”

Mime as a noun can also mean a skit, sketch, or act which involves mime: “Red Skelton did a mime about a parade.” “Do some mime for me—show me the wall.”

Used as a verb, to mime means to act out a story, an idea or a feeling: “I will mime a turtle in a hurry.”

Finally, it can be an adjective: “Here is some mime food. Eat up!”

2)

Talk about every-day gestures and how we express emotions

Theatre Arts Grade 3.C.1.1 Use non-verbal expression to communicate elements of characterization, including age and physicality. **Grades 4-5.C.1.1** Use a variety of postures, gaits, and mannerisms to express character.... **Grades 6-8.C.1.1** Use

characterization, including age and physicality. **Grades 4-5.C.1.1** Use a variety of postures, gaits, and mannerisms to express character.... **Grades 6-8.C.1.1** Use physical movement & acting skills to express a variety of emotions...

We use **gestures** to communicate without words. Ask students to show some gestures they are familiar with. (**Gesture**: a motion of the body or part of the body to express or emphasize ideas, emotions, etc.) Some common gestures to start off the conversation are: crooking the finger toward yourself to say, "Come here;" showing agreement or approval with a thumbs-up; making a face to show, "Yuck!" Different cultures use different gestures to mean different things; if you have a multi-cultural classroom, a discussion about gestures and their meaning could be an entrée into conversation about different cultural communication norms.

We express different **emotions** using our faces and bodies. Ask students to show how they would sit if they were feeling happy, sad, scared, angry. Note that different people do different things for the same feelings. Have students look around and identify specific differences in how others are expressing their emotions—what is different about the posture, the placement of feet, legs, arms, hands, heads, and the facial expressions? (*Social and Emotional Learning: awareness of others, self-awareness*)



3)

Show everyday activities

Have students remember an every-day activity and show what it is without using any props; have them mime the objects. This exercise can be changed to show some activity you've never done, or something you are good at, or a place you'd like to go, or a word that starts with a certain letter or phoneme, or a scene from a story you've been reading—just about anything can be mimed.

Books on Mime

Brantz, Loryn, *Harvey the Child Mime*, Darien, CT, Hometown 520. (story book)
Hamblin, Kay, *Mime, A Playbook of Silent Fantasy*, Garden City, NY Doubleday, 1978.
Kerrigan, Sheila, *The Performer's Guide to the Collaborative Process*, Portland, NH, Heinemann, 2001.
Kipnis, Claude, *The Mime Book*, New York, Harper and Row, 1974.
Montanaro, Tony, *Mime Spoken Here, The Performer's Portable Workshop*, Tilbury House, 1995.
Spolin, Viola, *Improvisation for the Theatre*, Evanston, Ill. Northwestern University Press, 1963.
Towsen, John, *Clowns*, New York, Hawthorn Books, 1976.
Yoon, Salina, *Be A Friend*, NY, Bloomsbury, 2016. (story book)

Suggestions for Classroom Activities After the Video

Play the Control Game

I like to start every movement session with a 5-minute Control Game. It reminds students how to move safely, respectfully, and silently. Students will connect it to freeze games they have played, but the rules are different

You need:

A CD player and music (or another cue like a drum, bell, shekere, or lights);
A topic or theme for the movement, and some prompts.

The Control Game has three rules:

1. When the music plays, you move according to the prompt. When the music stops,

The Control Game has three rules:

1. When the music plays, you move according to the prompt. When the music stops, you freeze. If you move when you are supposed to be frozen, you sit aside and watch until told to rejoin the group.
2. If you make any sound with your voice, either accidentally or on purpose, you sit aside and watch until invited to rejoin the group.
3. If you touch anybody else or anything other than the floor, you sit aside and watch until told to rejoin the group.

Note: I ask the students to monitor their own control and sit aside when they bump, make a sound, or move when they should be frozen. Students who are sitting out can watch. I don't keep them sitting out for more than one or two prompts. Then I invite them back in. It is not a punishment to sit out; it's just the rule of the game. The students who sit out the most are the ones who need to play the game the most, to improve their self-control.

You can play the Control Game using any number of topics; so it is a great way to start a lesson.

For **ELA**, I use vocabulary words: verbs (wiggle, stomp, float, wither, mosey...), adverbs (lightly, heavily, slowly, randomly...), similes (like a snail, like a cloud, like waves), position words, prepositions, adjectives (including emotions).

For **Science**, I use vocabulary from Science and Dance:

Space

Locomotor (making a pathway)	Non-Locomotor (in place)
zig-zag	rotate
straight lines	jump up
roller-coaster	squat
curves	push-ups

Bodily Shapes

curved
diagonal lines
vertical lines
horizontal lines
twisted

Position (relative to floor)

High Medium Low

Weight

Strong-Heavy	Light
stomp	float
mash	flutter
sink	swim
stagger	fly

Flow

Bound	Free
push	flop
pull	sway
drag	skip
grind	throw
mash,	hop
squeeze	swing
struggle	release

Challenge your students

Challenge your students

Ask them to demonstrate their understanding of a scientific concept they have been studying by collaboratively creating a performance. Split them into small groups and have them start by writing down what the concept means and what they understand about it. Then have them work together to make a short mime or dance piece, or a dramatic scene (with dialogue) that shows what they know.

When they show their work, ask their audience describe what they saw using only positive language: What I saw; what I understood, what I felt; what I thought; what I liked; what might make it better.

See the rubric, at the end of this document, for ideas on how to evaluate their work.

Scientific Concepts That Can Be Performed

Grade K Forces & Motion

K.P.1.1 Compare the relative position of various objects observed in the classroom and outside using position words such as: in front of, behind, between, on top of, under, above, below and beside.

K.P.1.2 Give examples of different ways objects and organisms move (to include falling to the ground when dropped): Straight, zigzag, round and round, back and forth, fast and slow.

Grade 1 Forces & Motion

1.P.1 Understand how forces (pushes or pulls) affect the motion of an object.

1.P.1.1 Explain the importance of a push or pull to changing the motion of an object.

1.P.1.2 Explain how some forces (pushes or pulls) affect the motion of an object.

Earth in the Universe

1.E.1.2 Recognize patterns of observable changes in the Moon's appearance from day to day.

Grade 2 Forces & Motion

2.P.1.1 Illustrate how sound is produced by vibrating objects and columns of air.

2.P.1.2 Summarize the relationship between sound and objects of the body that vibrate—eardrum and vocal cords.

Structures & Functions of Living Organisms

2.L.1.1 Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging and death.

2.L.1.2 Compare life cycles of different animals, such as: mealworms, ladybugs, crickets, guppies or frogs.

Grade 3 Matter: Properties and Change

3.P.2.2 Compare solids, liquids, and gases based on their basic properties.

3.P.2.3 Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such as melting ice or ice cream, boiling water or an egg, or freezing water.

Grade 4 Forces and Motion

4.P.1.1 Explain how electrically charged objects push or pull on other electrically charged objects and produce motion.

Earth in the Universe

4.E.1 Explain the causes of day and night and phases of the moon.

Earth History

4.E.2.3 Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.

Grade 5 Forces and Motion

eruptions, and earthquakes.

Grade 5 Forces and Motion

5.P.1.1 Explain how factors such as gravity, friction, and change in mass affect the motion of objects.

Matter: Properties and Change

5.P.2.1 Explain how the sun’s energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation, and runoff).

A Rubric for Evaluating Performance of Scientific Concepts

CC.ELA Reading for Literacy in Science	Accomplished 3	Developing 2	Beginning 1	Score
Understanding and communicating the central idea	The group clearly communicates the central idea through performance.	The group communicates some of the central idea somewhat clearly.	The group does not communicate the central idea—audience doesn’t get it.	
Summary of the central idea	The group writes a clear and correct summary of the central idea.	The group writes a somewhat clear & partially correct summary of the central idea.	The group did not write a summary, or wrote one that is unclear and incorrect.	
Dance &/or Drama	Accomplished 3	Developing 2	Beginning 1	Score
Clarity of Communication of Science Concepts	All performers clearly communicate a science concept.	Some performers communicate part of a science concept through dance or drama.	Audience has no idea what science concept is involved in the performance.	
Commitment	All performers perform with full commitment, using their bodies fully .	Some performers perform with some commitment, using most of their bodies.	All performers perform minimally, with little or no commitment.	
Responding: Audience Etiquette	Group attended, applauded, and appreciated performances by others.	Some group members attended, applauded, or appreciated performances by others.	Group did not attend, applaud, nor appreciate performances by others.	
Responding: Analysis	Group members made pertinent comments about the meaning, impact, or aesthetics of performances of others.	Group members commented about the meaning, impact, or aesthetics of performances of others.	Group members made no comments or irrelevant ones about the meaning, impact, or aesthetics of performances of others.	

Group Work (Group members can fill this out for their peers.)	Accomplished 3	Developing 2	Beginning 1	Score
Focus	All group members stay focused on the assignment.	Most group members stay focused most of the time.	Most group members have little or no focus most of the time.	

	stay focused on the assignment.	members stay focused most of the time.	have little or no focus most of the time.		
Contribution	All group members contribute ideas and do the work.	Most or some group members contribute ideas and work most or some of the time.	Few or no group members contribute ideas and little work is accomplished.		
Listening and Respect	All group members listen when others talk and speak respectfully.	Most or some group members listen when others talk and speak respectfully.	Everyone speaks at once and treats others disrespectfully.		
Individual Contribution	I fully participated and contributed to the group. I was responsible for:	I participated and contributed some, but could have done more. I was responsible for:	I did not contribute to or participate in my group.		
Total points: 99					
Performance Pizzazz: Creativity, Going All-Out, Aesthetic Heights	1 extra point				

Group Members:

Comments: