

Greek Mythology and the Forms of Energy

developed by

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Background:

Greek Mythology is a wonderful literary vehicle with which to integrate forms of energy. The ancient Greeks did not have the scientific tools we have today to study the natural phenomena affecting them, so they used myths to try to make sense of their world.

Objective:

To integrate literature and science and capture student interest by reading mythological explanations for phenomena we recognize as forms of energy.

Materials:

NEED EnergyWorks Kit (or Teacher and Student Guides with selected classroom materials to demonstrate the forms of energy)

Greek mythology materials from the NEED website and the library

Lessons:

Lesson 1: Meet the Gods & Introduction to the Forms of Energy

Lesson 2: Sound – Echo

Lesson 3: Light – Narcissus (reflection)

Lesson 4: Heat – Prometheus (fire)

Lesson 5: Growth – Demeter and Persephone

Lesson 6: Electricity – Zeus

Lesson 7: Motion – Hermes

Lesson 8: Review

Reinforcement Activities: Nine Kinds of Smart

Lesson 1: Meet the Gods

- KWL What do you know about Greek mythology?
- KWL What do you want to know about Greek mythology?
- KWL What do you know about the forms of energy?
- KWL What do you want to know about the forms of energy?

Introduction:

Introduce students to the Greek gods using the family tree on the website that displays the origin of the Olympian Gods and their antecedents, the Titans. Discuss family trees and how the family tree of Greek gods differs from the family trees of people today. Discuss why the Greeks might have used the concept of a family hierarchy with their gods.

Explain how the Greeks and other ancient cultures used myths to explain natural phenomena that they observed and could not explain with reason. What caused electrical storms, eclipses, meteors, floods, droughts, earthquakes, tidal waves, plagues of insects and disease?

Read the myth about Poseidon on the website to the students and discuss the natural phenomena that it attempts to explain.

Introduce the forms of energy using the Forms of Energy explanation on the website. Discuss how the ancient Greeks might have explained the forms of energy in myth.

Have the students create a picture of a present day god or goddess and write a one-paragraph myth explaining one of the forms of energy they will be studying.

- KWL What have you learned about Greek mythology?
- KWL What have you learned about the forms of energy?

Lesson 2: Sound - Echo

- KWL What do you know about sound?
- KWL What do you want to know about sound?

Have the students read the background information on sound in the EnergyWorks Student Guide.

Have the students conduct the experiments you have chosen for sound.

Have the students read the myth of Echo and write a paragraph about how the myth tries to explain a natural phenomena pertaining to sound.

Have the students design a musical instrument that produces sound and explain how it works.

- KWL What have you learned about sound?

Lesson 3: Light - Narcissus (reflection)

- KWL What do you know about light?
- KWL What do you want to know about light?

Have the students read the background information on light in the EnergyWorks Student Guide.

Have the students conduct the experiments you have chosen for light.

Have the students read the myth of Narcissus and write a paragraph about how the myth tries to explain a natural phenomena pertaining to light.

Have the students make a time line of the ways people have used and produced light over the years.

KWL What have you learned about light?

Lesson 4: Heat - Prometheus (giver of fire)

KWL What do you know about heat?

KWL What do you want to know about heat?

Have the students read the background information on heat in the EnergyWorks Student Guide.

Have the students conduct the experiments you have chosen for heat.

Have the students read the myth of Prometheus and write a paragraph about how the myth tries to explain a natural phenomena pertaining to heat.

Have the students write a paragraph about what life would be like without heat and describe ways they produce heat in their homes.

KWL What have you learned about heat?

Lesson 5: Growth - Demeter and Persephone

KWL What do you know about growth?

KWL What do you want to know about growth?

Have the students read the background information on growth in the EnergyWorks Student Guide.

Have the students conduct the experiments you have chosen for growth.

Have the students read the myth of Demeter and Persephone and write a paragraph about how the myth tries to explain a natural phenomena pertaining to growth.

Discuss the four seasons and how they affect the growth of plants and animals.

KWL What have you learned about growth?

Lesson 6: Motion - Hermes

KWL What do you know about motion?

KWL What do you want to know about motion?

Have the students read the background information on motion in the EnergyWorks Student Guide.

Have the students conduct the experiments you have chosen for motion.

Have the students read the myth of Hermes and write a paragraph about how the myth tries to explain a natural phenomena pertaining to motion.

Have the students use the laws of motion to explain the energy transfers in a game of their choice.

KWL What have you learned about motion?

Lesson 7: Electricity - Zeus (lightning bolt)

KWL What do you know about electricity?

KWL What do you want to know about electricity?

Have the students read the background information on electricity/technology in the EnergyWorks Student Guide. You can use the ElectroWorks unit for a more extensive exploration of electricity.

Have the students conduct the experiments you have chosen for electricity.

Have the students read the myth of Zeus and write a paragraph about how the myth tries to explain a natural phenomena pertaining to electrical energy.

Have the students write a paragraph about how ancient people might have explained static electricity.

KWL - What have you learned about electricity?

Lesson 8: Review

KWL What have you learned about Greek mythology?

KWL What have you learned about the forms of energy?

Introduce the Greek alphabet and discuss the letters and words that we use today.

Have the students read the creation myth and compare and contrast with other creation myths, with the theory of evolution, and with the Biblical explanation of creation.

Have the students begin a research project on one of the Greek gods or goddesses.

Reinforcement Activities: Nine Kinds of Smart

Verbal Smart:

Choose a god or goddess and write a bio-poem, acrostic, or other form of poem to describe the powers and personality of the character of your choice.

Look through the newspaper, find a natural disaster, and write a myth story using the appropriate gods or goddesses to explain the natural phenomena.

Choose a myth and create a play with a script and scenery to perform the myth on stage.

Nature Smart:

Write a myth explaining the seasons.

Collect seeds, leaves, and other natural specimens and create a collage for the god or goddess of your choice.

Music Smart:

Write lyrics about a Greek myth or character. Choose a popular song or rap and put your words to the melody and rhythm.

Listen to several classical music pieces and assign a particular composer or performer to any given Greek god/goddess or character. Be prepared to present your Greek Music Pop Festival to the class. Give logical explanations for your choices of music and character.

Assign musical instruments to the god/goddess that they best represent.

Math Smart:

Create a secret number code for the Greek alphabet. Make words or messages for your classmates to unscramble.

Find formulas that ancient mathematicians created. Use the formulas to solve a problem. Research the discoverer and share with the class. Pythagoras is one example.

Geometry is a great study of Greek genius. Research the history of this math concept.

Body Smart:

Create and perform a dance that shows one of the energy forms.

With your body, create the Greek alphabet. You may need a partner.

Dress like a Greek god/goddess and behave like that character might act in our day.

Art Smart:

Design and paint a mural depicting a scene from one of the myths.

Create a poster describing a form of energy.

Sculpt a clay statue of a Greek god/goddess or character.

Create several art centers or stations for students to depict one of the myths, or energy forms. Each piece of art should refer to a particular myth or form of energy.

Interpersonal Smart:

Write interview questions and pretend you interviewing one of the Greek gods or goddesses. Respond in a way that the character would probably react.

Choose two of the warring characters and write a plan that will bring peace to the diabolical duo.

Intrapersonal Smart:

Imagine you are one of the Greek gods or goddesses or one of the characters from a Greek myth. Create a diary and write entries that you would enter as one of these powerful figures.

As one of the Greek gods or goddesses, write an explanation of how you could use your powers to make the world a better place.

Spiritual Smart:

Write 10 Commandments that Zeus might think good rules to live by.

Explain how the Greeks helped humans to become better beings. Did they think of human-kind as spirit beings?

Compare the energy forms to spiritual characteristics and create a chart that displays the comparisons.

Write an essay about how the Greek gods and goddesses served mankind and prepare a speech from the essay to share with your class.