

## Unpacking Standard Template - Sample: Science

Established Goals:

Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are a result of past and current geoscience processes.

Stated or implied Big Ideas in the NOUNS and ADJECTIVES:

- \_\_\_ evidence-based scientific explanation
- \_\_\_ uneven distributions
- \_\_\_ Earth resources (mineral, energy and groundwater)
- \_\_\_ past & current geoscience processes

Stated or implied real-world performance in the VERBS:

- \_\_\_ construct (an evidence-based scientific explanation)

A claim, based on evidence, with reasoning, and a rebuttal (counterclaim or alternative explanation)

Essential Questions Ideas:

[FOCUS ON ENERGY FOR TWO WEEKS]

- How does the human pursuit of energy around the world affect all humans and the earth itself?

Understanding Ideas:

*Students will understand that:*

[FOCUS ON ENERGY FOR TWO WEEKS]

Earth energy resources are:

- valued, essential, but limited and typically non-renewable;
- unevenly distributed around the world; and
- significantly changing in distribution as a result of removal by humans

Performance Task Ideas:

- Have students produce a PPT presentation, radio editorial or magazine article where they advocate increasing state and federal research and development dollars favoring one the energy resources:
  - fossil fuels
  - nuclear
  - hydropower
  - solar
  - wind
  - biomass
- Use the C-E-R-R framework and rubric
  - Claim: "In response to the question, we advocate for..."
  - Evidence: "Data has indicated..." "Per the articles..."
  - Reasoning: "Since we know..." "Based on..."
  - Rebuttal: "Some might argue that.. however..."

## Identifying Essential Questions and Understandings

### Topics and Big Ideas

The earth has influenced human activity for eons and now human activity is having a major impact on the Earth; The stewardship, sharing or hoarding of resources has caused both negative and positive outcomes for humans.

What essential questions are raised by this idea or topic?  
What, *specifically*, about the idea or topic do you want students to come to understand?

*Why study \_\_\_\_\_? So what?*

*What makes the study of \_\_\_\_\_ universal?*

*If the unit on \_\_\_\_\_ is a story, what's the moral of the story?*

*What's the Big Idea implied in the skill or process of \_\_\_\_\_?*

*What larger concept, issue, or problem underlies \_\_\_\_\_?*

*What couldn't we do if we didn't understand \_\_\_\_\_?*

*How is \_\_\_\_\_ used and applied in a larger world?*

*What is real-world insight about \_\_\_\_\_?*

*What is the value of studying \_\_\_\_\_?*

### Essential Questions:

- How does the human pursuit of energy around the world affect all humans and the earth itself?
  - Humans depend on Earth resources, many of which are not renewable or replaceable. Why are energy resources so important to humans?
  - All human activity draws upon natural resources. Why are energy resources distributed unevenly around the planet?
  - How does the search and use of natural energy resources create positive and negative consequences for the health of people and the natural environment?

### Understandings:

Earth energy resources are:

- valued, essential, but limited and typically non-renewable;
- unevenly distributed around the world; and
- significantly changing in distribution as a result of removal by humans.