

# Natural Resources for Energy

## Lesson 1

# Nonrenewable and Renewable Energy

# Learning Goals

By the end of this lesson, you should be able to:

- Define **natural resources**.
- Define **renewable** and **nonrenewable resources**.
- Provide at least three examples of **renewable** and **nonrenewable resources**.
- Write an **argument** that supports a **claim** about using **natural resources** with valid reasoning and relevant **evidence**.



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# Your Background Knowledge

What does it mean for something to be natural? How do you know if something is not natural or unnatural?



Raise your hand.  
Talk to the class.

# Your Background Knowledge

What is a resource?

What resources do you use to learn? What resources do you use to get around your city or town?



Raise your hand.  
Talk to the class.

# Your Background Knowledge

Have you heard the term “natural resource” before?

In what contexts have you heard it?



Raise your hand.  
Talk to the class.

# Natural Resources

Are **materials** found in **nature** that help to **support** and **sustain life** on Earth.

Are sometimes called “raw materials.”

Are our primary sources of energy.



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# Natural Resources for Energy

## **Renewable:**

Energy sources that either exist in a limitless quantity or are able to be replenished as quickly as they are used by humans.

## **Nonrenewable:**

Energy sources that are finite (not limitless) and cannot be replenished within a human lifetime.



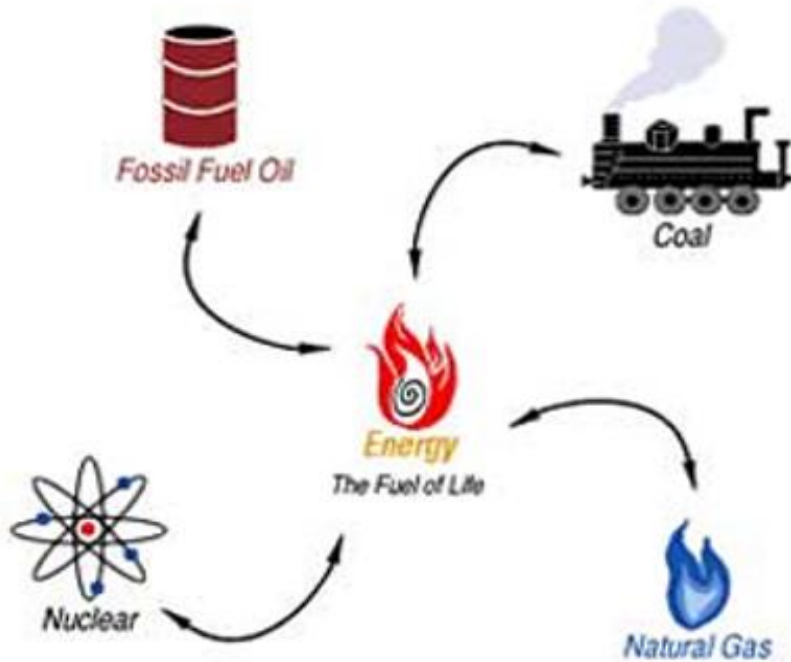
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# Renewable vs. Nonrenewable Energy

## Non-Renewable Energy



[Video: Nonrenewable Energy](#)

Source: <https://quizlet.com/42152580/energy-resources-flash-cards/>

## Renewable Energy



[Video: Renewable Energy](#)



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# Let's Practice

Now, let's practice using and organizing our vocabulary about renewable and nonrenewable resources.

In the top two boxes, write “Nonrenewable” on the left and “Renewable” on the right.

What two categories of nonrenewable resources might go under Nonrenewable?

Think about the types of energy we've learned about so far. Try to recall as many as you can and categorize them as “Renewable” or “Nonrenewable.”



Work by yourself.  
Answer the questions.



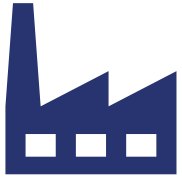
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# What natural resources do we use for energy everyday?



Raise your hand.  
Talk to the class.

# Where does the energy come from when we ...



Manufacture  
products?



Turn on the  
lights?



Drive our  
cars?



Heat our  
homes?



Plant and  
harvest crops?



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# Arguments

- The GED® and HiSET® tests require you to understand how to construct and critically read arguments.
- The tests expect you to write arguments with clear, well-developed **claims**, as well as with valid **evidence**.
- They also expect you to read several arguments that take differing perspectives on issues and to evaluate the claims and reasoning the authors of those arguments use.



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## Did You Know?

The way the GED® and HiSET® tests use the word “argument” is different from the everyday definition of argument. When you see the word “argument” on your test, it doesn’t mean a heated or stressful disagreement between two people.

Instead, it means an author’s expression of their point of view on an issue or topic, which is supported by evidence.



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# Don't Worry!

If this feels new to you or overwhelming, don't worry! Over the next few lessons, you are going to have the opportunity to build your skills both reading and writing arguments while learning about the science topic of natural resources.

You will get ongoing feedback from your instructor so you can build your skills and confidence.

# Arguments

- The use of nonrenewable and renewable natural resources is a highly debated topic.
- Many authors (who may also be scientists, politicians, businesspeople, concerned citizens, etc.) write arguments about how they believe natural resources should be used.
- For this part of the lesson:
  - We will first learn about the parts of a strong, well-supported argument.
  - Next, we will look at two sides of a debate about the use of natural resources.
  - Lastly, you will have the opportunity to write your own one- to two-paragraph argument about your stance on how natural resources should be used.



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# Arguments

- Let's watch a video about how to analyze an argument. It shows an example of a strong argument.
- There will be a quiz after the video, so you may check your understanding.
- Pay attention to the definitions of the following words:
  - **Argument**
  - **Claim**
  - **Premises**
  - **Conclusion**

[Video: Analyzing the Argument](#)



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# Analyzing Arguments Quiz

Now, we will take a practice quiz on the video we just watched to see what we've learned so far about analyzing arguments.

Work independently to choose the best answers. Read the questions and answer choices closely.



Work by yourself.  
Answer the questions.

# What are some of the common arguments around issues with renewable energy?

Geographic limitations

Dependability

Cost effectiveness



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# What are some of the common arguments around issues with nonrenewable energy?

Finite supply

Global warming

Environmental issues



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# Two Arguments About Renewable and Nonrenewable Energy

Now, we will watch two videos which present different arguments about our current readiness to transition from nonrenewable to renewable energy sources. Your instructor will share a worksheet for you to complete as you watch the videos. We will work together to take notes on the evidence and main claim for Video 1. For Video 2, you will take notes on the evidence and claims independently. Then, you will use page 2 and the notes you took on page 1 to write your own argument paragraph.

## Video 1: Why the U.S. isn't ready for clean energy, from Vox

## Video 2: Can 100% renewable energy power the world?, from TedEd



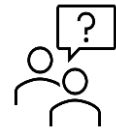
Take notes



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Ask the teacher  
if you have a question.

# Discuss

What do you think was the main claim of each video?

What evidence supported each claim?



Talk to your  
partner or group.



When your teacher asks,  
raise your hand and  
share with the class.

# Writing Your Argument Paragraph

Now, you will have the opportunity to try your hand at writing an argument paragraph.

On page 2 of your worksheet, you will find instructions, sentence starters, and a copy of the mentor paragraph found on the next slide to support you. Please also use the first page to pull your wording of evidence and claims from the video.



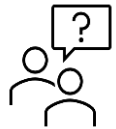
Write



Listen



Watch



Ask the teacher  
if you have a question.

# Writing Your Argument Paragraph

## What is a mentor text?

A mentor text is an example response to the prompt you are asked to write.

You **should** aim for your response to have a similar word count, style, grammar, and tone as the mentor text.

You **should not** aim to copy the ideas or the content of the mentor text. The ideas and content you write should reflect **your own stance on the issue**.

## Mentor Text

Renewable energy is currently a good alternative to nonrenewable energy because, as the TedEd video discusses, we are making ample scientific progress toward efficiency of renewable energy sources. Evidence from the TedEd video that supports this claim is that solar energy is being converted into chemical energy in labs. The TedEd video presents stronger evidence because it shows a balanced perspective of the current limitations of renewables alongside the progress being made.



Write



Listen



Watch



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if you have a question.

# Reflection

Can you:

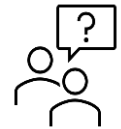
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Think



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