



Resources developed by San Mateo County Office of Education's (SMCOE)  
Environmental Literacy and Sustainability Initiative (ELSI) • Last updated June 2022

**Purpose and Overview of WebQuests:** WebQuests are self-guided learning tools. Using this tool, you can construct your own understanding by choosing which sources are most useful.

You can:

- Choose the Order - Explore resources in any order you want!
- Choose the Duration - Some resources you might glance through quickly, while others you might spend more time reading carefully.
- Choose to Go Beyond - Consider the resources in the WebQuest just a starting point. Let the links take you to other sources that deepen your learning.

**\*\*\*You should click on at least one resource in each section\*\*\***

## SECTION I: Energy basics: Nonrenewable and Renewable resources

As you navigate through the resources below think about these questions:

- A. *What is energy?*
- B. *How is electricity generated?*
- C. *What are the differences between nonrenewable and renewable energy sources?*
- D. *What are examples of nonrenewable and renewable energy sources?*

### What is energy?

- [Energy \(Britannica\)](#)
- Video: [What is energy? \(SciShow\)](#)
- Article: [Energy and the Carbon Cycle](#) (UCAR)

### How is electricity generated?

- Video: [How does electricity work?](#)
- Electricity: [Explain that stuff](#)
- Video: [Electricity 101: Electricity Generation](#)

### Renewable and Nonrenewable Energy

- Video: [Renewable and Nonrenewable Energies](#)
- [Nonrenewable Resources \(Nat Geo\)](#)
- [The Power of the Sun \(NatGeo\)](#)
- [Putting Wind to Work \(NatGeo\)](#)
- [Renewable and Nonrenewable Energy Sources Explained](#)

## SECTION II: Energy Distribution

As you navigate through the resources below think about these questions:

- A. *What is the power grid?*
- B. *How does electricity get to my home or school?*
- C. *What types of problems cause damage to the power grid?*

- Video: [How does the power grid work?](#)
- [How electricity is made and delivered to your home](#)
- [How does electricity get to your home?](#)
- Video: [How does power get to your home?](#)
- Interactive: [Cyber Squirrel 1](#)

## SECTION III: Energy Solutions

As you navigate through the resources below think about these questions:

- A. *What does it mean to have a carbon footprint?*
- B. *What does “net zero” mean?*
- C. *What are the characteristics of net zero energy buildings?*

- [Carbon Footprint](#)
- [What is Net Zero?](#)
- [What are zero net energy homes and buildings?](#)
- Video: [What is a zero energy building?](#)
- Video: [Building Brighter Futures through Zero Energy: Discovery Schools](#)