

# THE BUS PROJECT

## TODAY'S EXPLORATION: Why Reuse a Bus to Live In?

### Grade Level: 5

**Overview**: Students will explore the costs and environmental impacts of different dwelling styles, including: a converted bus, a newly built tiny home (400 sq. ft. or under), and a new average size home (2,500 sq. ft.). They will then identify the costs and benefits of a variety of dwellings that people live in various communities.

**NGSS: 5-ESS3-1**. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

#### **Practices**

Obtaining, Evaluating, and Communicating Information

#### **Crosscutting Concepts**

System and System Models

### Materials:

- Graphic Organizer <u>Comparing Dwelling Types Google Docs</u>
- Video Bus Converted into Tiny House
- Converted Bus Resources:
  - Website <u>Your Guide to Living in a Converted School Bus Affordable</u> <u>Housing Tips</u>
  - Video and Article <u>Family of 6 Living Full-Time in a 250-sq.ft. Converted School Bus</u>
- Tiny Home Resources:
  - Website <u>Developments Hiatus Homes</u>
  - Video Tiny Homes: Hiatus Homes Zero Energy Cottage Construction
  - Article <u>Are Tiny Homes Worth It? The Benefits May Outweigh the Small Size</u>
- Traditional Home:
  - Video Cost to Build a House in 2020 YouTube

- Article How Much Does It Cost To Build A House? | Rocket Homes
- o Article Cost to Build a Home in the U.S. | Apartment Therapy

## Investigation:

- 1. Start by having every student make a copy of the graphic organizer.
- 2. Next, have students watch the Video Bus Converted into Tiny House.
- 3. Following the video, allow students to share or post questions and observations about the video.
- 4. Then have students work individually or in pairs to explore the resources and collect information for the <a href="Comparing Dwelling Types Google Docs">Comparing Dwelling Types Google Docs</a>.
- 5. After collecting the information, have students write an informational article, create a webpage, slides presentation, or poster that compares and contrasts the pros and cons of each dwelling type.
- 6. Have students share their findings in a method of their choice.

## Product or Artifact Possibilities:

- Completed Comparing Dwelling Types Google Docs
- Article, webpage, slides presentation, or poster comparing and contrasting dwellings

## **Guiding Questions:**

- 1. What are the positive and negative attributes of different dwellings?
- 2. How are some dwellings more environmentally friendly or sustainable?
- 3. How do different communities of people live and what drives their reasoning for living in different dwellings?

# What Are We Discovering?

There are many types of dwellings where humans live, and there are positives and negatives to all dwelling types. Some communities use science, engineering, and design to help design more sustainable dwellings. Some dwellings are more environmentally friendly or sustainable than others.

# Acknowledgments:

Many thanks to Tiffany M. Windle-Hanson and STEM Oregon.

Dwelling Type	What is the cost to build?	What materials are used to build the dwelling?	What part of the earth do the materials come from? Are they being recycled, mined, harvested, etc?	What are the positives about this type of dwelling?	What are the negatives about this type of dwelling?	After learning about this type of dwelling, what are your thoughts and feelings about it?
Converted Bus						
Tiny Home						
Traditional New Construction Home						

