

# Diminutive dwellings

## Overview

A recent college graduate is looking to purchase their first home and must decide between remodeling a small cottage or designing a tiny home. Students will demonstrate their understanding of design economy by creating efficient and flexible small spaces.

## Scenario

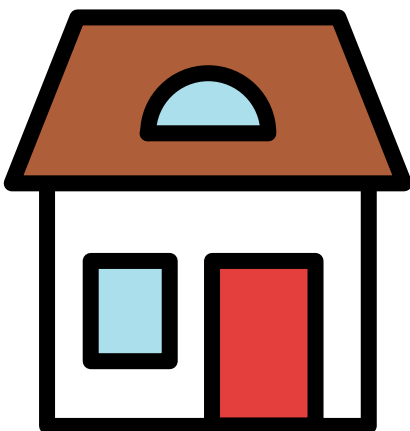
You are a recent college graduate preparing to buy your first home. As you begin exploring your options, you have come across two interesting choices:

- Your first option is to remodel a cottage that was built in 1957. The cottage is a 750-square-foot two-bedroom, one-bath home. While the bones of the house are good, it will need updates to use the smaller space more efficiently.
- Your second option is to build a tiny home. The trend has become popular in your town, and since you do not require a lot of space, it may be a viable option. With only 500 square feet to work with, you will need to design flexible spaces to make the tiny home functional.

## Driving questions

The driving questions were developed to encourage you to explore the current realities of communities and individuals to be served. The questions will aid you in developing empathy to understand how others might be feeling about a problem, circumstance, or situation.

1. How can the cottage be remodeled to more efficiently use the space?
2. How can the spaces within the tiny home be flexibly designed for multiple purposes?
3. What makes a space functional within a home?
4. What are the important elements in designing a living space?
5. What materials can be used or repurposed in either design?
6. How energy efficient is each design?
7. Are there any state or national incentives for certain design choices?
8. Can any of the materials for either design be locally sourced?

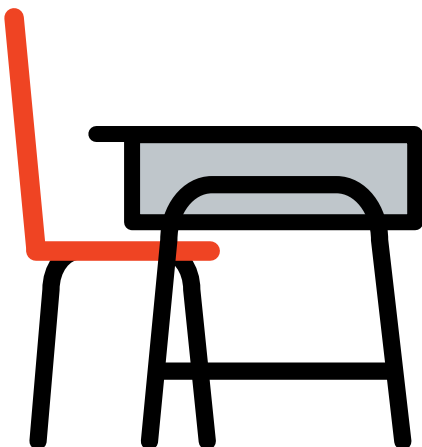


# Understanding, Research, Define, and Ideation (U-RDI)

## Understanding

Understanding is the process of gathering information to inform what you need to know about a topic. The use of a graphic organizer can help you analyze two aspects of a problem. We are suggesting a T-Chart to explore your “know” and “need to know”.

Know	Need to know
<ul style="list-style-type: none"> <li>• You are a recent college graduate.</li> <li>• You are preparing to buy your first home.</li> <li>• You have two interesting options.</li> <li>• Your first option is to remodel a cottage that was built in 1967.</li> <li>• The cottage is a 750-square-foot two- bedroom, one-bath home.</li> <li>• The bones of the cottage are good, but it needs updates to use the smaller space more efficiently.</li> <li>• Your second option is to build a tiny home.</li> <li>• The tiny home trend has become popular in hour hometown.</li> <li>• You do not require a lot of space.</li> <li>• A tiny home only has 500 square feet to work with.</li> <li>• A tiny home will require flexible spaces to make it functional.</li> </ul>	



## Research

Research is the process of examining as much data as possible to have an informed idea for your problem.

## Problem specific resources

- [AIA - Designing for Equitable Communities](#)
- [10 Key Components for Building Healthy, Equitable Communities](#)
- [EPA - Creating Equitable, Healthy, and Sustainable Communities](#)
- [Tips for Connecting Learners to their Community](#)
- [The 7 Universal Design Principles](#)
- [Engaging Everyone](#)
- [Designing More Equitable Cities](#)
- [Simple Machines Article](#)

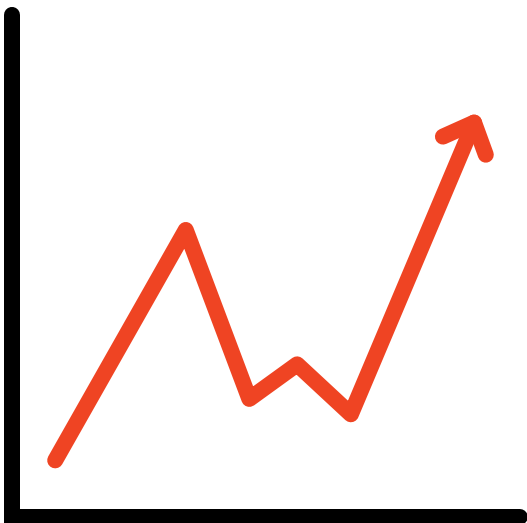
## Hands-on activity

- [Simple Machines Activities](#)

## Define your problem using empathy

Architects work to define problems before coming up with a solution. They use empathy in defining a problem. This allows them to define a problem using multiple perspectives.

Now that your research is done, define your problem!





### Ideation

During ideation you will develop as many possible solutions as possible to the problem base on your defined problem. Do not limit your solutions!

Once you have listed all your possible solutions in the box below, cross out those that are extreme or refine them to be more practical.

**Possible solutions:**