

## Adventure Description:

In this adventure, you will imagine that you are an architect who has been asked to design a series of homes that can float in the middle of the ocean. The homes will be used by a group of scientists who will be living at sea while studying ocean pollution.

## Activity

### Step One: Background Information on Eco-Friendly Homes

- Show [Discovery Link: Green Buildings](#) (play video until at least 3:50)
- Explain to explorers that this home is an example of eco-friendly architecture, meaning it is designed to have as little impact on the environment as possible.
- Discuss how eco-friendly homes do their best to get their electricity and energy from renewable resources such as sunlight or water.

### Step Two: Brainstorm and Plan (15 minutes)

- Explain to explorers that they will design a floating home that is eco-friendly. The first step is to sketch out a blueprint (drawing of the layout) of what the home will look like.
- Provide Students with [Handout: Blueprints and Models](#)
- Next, show [Discovery Link: Why are Blueprints Blue?](#)
- Ask explorers why architects create blueprints and models before they build a building.
  - Explain that architects draw out their ideas and create models to see what the building will look like before it is created. This allows architects to make changes needed to the design and ultimately save money (it is very expensive to build buildings and then knock them down to make changes).
- Provide explorers with [Handout: Creating a Floating Home](#). Explain to explorers that they need to read through the requirements before they begin sketching a blueprint of their design.
- Have students complete Step 1 on their handout. Explorers can work in pairs or individually!

### Step Three: Building a Model (20-25 minutes)

- Next, have students complete Step 2 on their handout.
- Explain to explorers that they should use their blueprint to build a model of their floating home.
- Explain to explorers that they must choose materials that are waterproof, as they will be testing their homes to see if they can actually float! Additionally, explorers cannot use any man-made materials other than tape.
- Provide explorers with art supplies and building materials that are waterproof to build their models.

Please contact Allison Bischoff, Director of Customer Service, at [allison@rozzylearningcompany.com](mailto:allison@rozzylearningcompany.com) or 314-272-2560 with questions.

## Step Four: Evaluating the Models (10 minutes)

- Explain to explorers that they will now evaluate each other's designs and models.
- Have explorers give their blueprint and model to another person or group.
- Then, have explorers fill out Step 3 on their handout.
- When explorers are finished evaluating, have them provide constructive feedback on their design based on the questions they answered.

## Materials List

### Provided online:

- Discovery Link: Green Buildings
- Handout: Blueprints and Models
- Discovery Link: Why are Blueprints Blue?
- Handout: Creating a Floating Home

### Not provided:

- Art Supplies
- Waterproof Building Supplies (plastic, wood, rocks, pipe cleaners etc.)
- Bins to Hold Water

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