



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at [www.projectexploration.org/stemathome](http://www.projectexploration.org/stemathome).

## In this activity, you will:

build a shelter to protect you in the rainforest!



## Supplies Required:

- Small toy
- 1 spray bottle
- 10 popsicle sticks
- 10 tooth picks
- 1 piece of styrofoam
- 4 paper cups
- 3 sheets of cardboard
- Tape
- Glue
- Scissors

## Video

Explore the rainforest: <https://tinyurl.com/y7nd39m2>

## Overview

You are an explorer in the rainforest! You have been sent on a mission to investigate the different bird species that are living in the canopy. You have been observing birds and documenting your findings very clearly in your science notebook. You made sure to bring all of your necessary science equipment but you forget to bring your tent! You will need to use the materials you have been given to construct a shelter. Make sure it's sturdy and that there are no holes--they don't call it a rainforest for no reason!



## Instructions

1. **Problem:** What do we want to solve? Look at the materials you have available. How will you build a strong rain shelter?
2. **Solutions:** What are some ways to solve the problem? What can hold a roof up? What makes for a strong wall?
3. **Model:** Build your design!  
Construct your shelter and place the toy inside of it. Does it have a roof? Is it sturdy enough to stand on its own? Will it resist water?
4. **Test:** Does your model work?  
Once the shelter is complete, test it out by squirting with water simulating rain.
5. **Reflect & Redesign:** Was your model successful? Does it need to be redesigned? Check to see if the shelter kept the toy dry. If not, redesign and rebuild the shelter. If it does not stand strong, what can you do to reinforce it and make it stronger?

## Additional Resources

1. Learn more about rainforests: <https://tinyurl.com/y4jbmhyf>
2. What animals live in the rainforest? <https://tinyurl.com/yycu3ask>

## Share It Out

**Share on social media:** Take a photo of your rainforest shelter and share on social media. What makes your shelter a success? Use the hashtags:

#RainforestShelter  
#ProjectExploration  
#StemAtHome

For more activities like this one, go to [www.projectexploration.org/stemhome](http://www.projectexploration.org/stemhome). If you're interested in learning more about Project Exploration and our free events, programs, and activities, please find us on social media and be sure to follow!



Call or text us for help: 312-772-6634

[www.projectexploration.org](http://www.projectexploration.org)