



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.

In this activity, you will:

Apply the steps of the engineering design process to help Little Red get to her grandmother's house!

Supplies Required:

- Graphic organizer
- 6 Round Noodles
- 2 Coffee Filters
- Masking Tape
- 1 Sheet of Construction Paper
- 2 Pipe Cleaners
- 2 feet of Yarn

Video

Listen to the story of Little Red Riding Hood: <https://tinyurl.com/u8arvnt>

Overview

Little Red Riding Hood wants to go see her grandmother, but she lives too far away and her bike is broken! Your job is to create something Little Red could use to get her to grandmother's house. You can only use the materials provided, but you do not have to use all of them. Your invention needs to include a spot where Little Red could sit. You must be able to explain how your invention would get Red Riding Hood to her grandmother's house. Follow the steps of the engineering design process to help you come up with the best solution possible.



Instructions

1. Use the graphic organizer to help you with your idea.
2. **STEP 1 - Problem:** What do we want to solve? Can you create something that Little Red Riding Hood could use to see her grandmother?
3. **STEP 2 - Solutions:** What are some ways to solve the problem?
4. **STEP 3 - Model:** Build your design!
5. Must use only materials provided, but you do not have to use all of them.
6. Your invention needs to include a spot where Little Red could sit.
7. Must be able to explain how your invention would get Red Riding Hood to her grandmother's house.
8. **STEP 4 - Test:** Does your model work?
9. **STEP 5 - Reflect & Redesign:** Was your model successful? Does it need to be redesigned?

Additional Resources

1. Learn how bikes are made: <https://tinyurl.com/y4froxbn>
2. Learn more about the invention of the bicycle: <https://tinyurl.com/y2m6hd48>

Share It Out

Share on social media: Share the results of your design with your friends and family on social media! Explain the steps of the engineering design process in a video! Use the hashtags:

#EngineeringDesign
#ProjectExploration
#StemAtHome

Share via PE's website: Students who complete STEM@home activities and share what they learned with the PE team via our website will earn points which can be traded in for cash prizes at the Explore Store. Your project number is 108. Learn more at www.projectexploration.org/explore-store



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