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:

enjoy a story as you imagine what is taking place! Then, build a hot air balloon out tissue paper and find out what happens when you change the air temperature inside of a balloon.

Supplies Required:

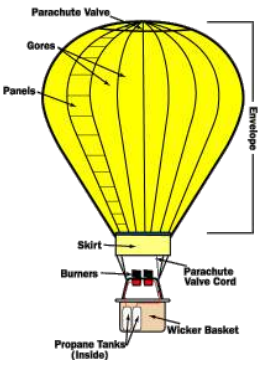
9 sheets of tissue paper
1 pair of scissors
1 glue stick
A straight edge like a meter stick or yard stick
Heat source like a hair dryer
Adult assistance/supervision

Video

Listen to the The Great Balloon Hullabaloo before completing the activity: https://tinyurl.com/szksox8
Learn how to make a tissue paper hot air balloon here: https://tinyurl.com/qu7befn

Overview

Some of the most basic scientific principles can be found in the making of a hot air balloon. Warmer air rises in cooler air. Hot air is lighter and less dense than cool air, which is why hot air balloons rise in the sky. The hot air balloon has three essential parts: the burner which heats the air, the balloon envelope which holds the air, and the basket which carries the passengers. Explore a bit of science as you listen, read along, and build a hot air balloon!



Instructions

1. Glue 4 sheets side by side
2. Create sort of a "pennant" shape
3. Place 3 papers under and cut
4. Glue "pennant" side by side
5. Glue the 2 large strips together
6. Glue pennant sides together
7. Fold over and glue to two end sides together
8. Glue last piece of paper over the "top"
9. Now you're ready to fly
10. Get an adult, find a safe place with a high ceiling to launch
11. Refer back to the video link for further instruction

Additional Resources

Think About It! What did you learn about hot air? What did you learn about balloons? Imagine landing a hot air balloon -- what do you think would be easy and difficult?

1. To find out more about the science behind hot air balloons: https://tinyurl.com/y55tg5od

Share It Out

What did you find most interesting about the hot air balloon adventure? What was successful about your hot air balloon design? What could be improved?

Share it on social media: many amusement parks, such as Six Flags and Disney Land, started with a small idea that grew. Do you think an amusement park would like your balloon design? Tag them and ask them to show us what they do!

Use the hashtag on social media:

#BalloonReadAlong
#ProjectExploration
#StemAtHome
#StemLiteracy

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 101. Learn more at www.projectexploration.org/explore-store.

Join PE's character contest!
Design a STEM character who will lead kids through activities and be featured on our website and in our STEMbooks. Cash prizes will be awarded to the top 3 finalists. Learn more at: www.projectexploration.org/character-contest.