

# Build a Bird Nest STEM Challenge



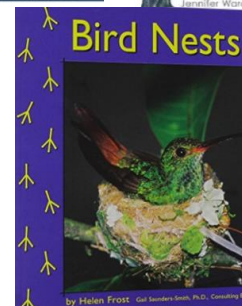
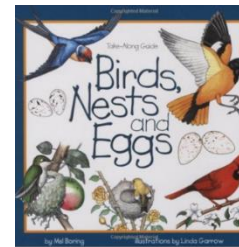
Birds build safe, secure homes out of twigs and other found things. They do it without hands.

Do you think you can build a bird's nest?

# Literature and Video Links

A good book or video is wonderful way to build background knowledge or to kick off your STEM challenge. Some suggestions:

- [Birds, Nests and Eggs by Mel Boring](#)
- [Mama Built a Little Nest by Jennifer Ward](#)
- [Bird Nests by Helen Frost](#)
- [Bird Making a Nest by MM Video Production](#)
- [Barn Swallow Nest Building Project by Tommi Pantti](#)



# How to Use this Product

- Use pages 4-6 on your interactive whiteboard to introduce and explain the challenge.
- If you do not have an interactive white board, print copies for pairs of students to share.
- Print pages 7&8 for *each* student to restate the task, plan and evaluate.
- Slide 9 is for class reflection on where the different STEM aspects were in this challenge.

# Build a Bird Nest STEM Challenge



Birds build the most amazing nests! Typical shapes include: *cup, saucer, pendant, and sphere.*



## *Background*

Birds in the United States typically nest between March and August. Birds build nests to provide a safe place for their young to hatch and grow. Different types of birds make different types of nests, but most nests are made from natural materials such as grass, mud, leaves, and fur, or from found materials such as plastic, paper and yarn. These sturdy structures are built with beaks and feet as the main tools.

## *Your Challenge:*

Build a bird nest that will safely hold 4 eggs and one adult bird.

# Bird Nest STEM Challenge

## Criteria

- You can work on your own or in a group of 2-3
- Your bird nest must:
  - Be made from the materials provided
  - Include at least 1 natural and 1 man made material
  - Have a floor that is wide enough to hold 4 eggs
  - Be deep enough to hold one egg-sitting parent

## Materials

- Branches/twigs
- Grass
- Leaves
- String
- Feathers
- cotton batting
- Shredded paper
- Pipe cleaners

## Tools

- Scissors
- Plastic bowls
- Rulers
- Plastic eggs

# Design Brief for Bird Nest STEM Challenge

Name(s) \_\_\_\_\_

What do you need to do?

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What type of nest will you build?

Cup      saucer      pendant      sphere

What materials will you use?

Draw your design. Label your materials.

Evaluation to be completed when done:

Did you make a bird nest?	Yes	No
Does it have a floor that can hold four eggs?	Yes	No
Is it deep enough for a parent to sit on the eggs?	Yes	No
Does it have at least 1 natural material?	Yes	No
Does it have at least 1 man made material?	Yes	No



# How was this STEM?

STEM combines science, technology, engineering and math.

Where was the science?

Where was the math?

Where was the engineering?

What tools or technology did you use?

# Teacher Tips

## Materials

- Send an email to parents a few days before you begin and have students bring in man-made materials from home.
- Go on a nature walk with your class around the school to gather the natural materials.
- Raid the paper shredder to get the shredded paper.
- I use mini Easter eggs as the eggs for this challenge.

## Finding Time

- Tying STEM to other curricular areas allows you to carve out more time for it. I tie this one to measurement in math and have students find the length, height, width and capacity of their nest.
- Once the planning stage is complete, I allow my students to work on their engineering at the science center during our literacy block or a maker station during guided math. This eliminates the need to take additional instructional time for completion.

# Bird Nest STEM Challenge

*Thank you!*

By downloading this product you agree to use it for one, personal classroom.

Please email me with comments or questions:  
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*Aligned to NGSS Structure, Function and Information Processing Standards as well as Life Processes and Measurement.*

For more STEM ideas and freebies visit me at my blog:

STEAMing Through First

<http://steamingthroughfirst.blogspot.com>