



Which team can build  
the nest that will  
hold the most pennies?

### Competition Rules:

Each team will receive \$1.00 to buy nest-building materials. Teams are not allowed to borrow money from other teams or add additional money of their own. Refunds or replacements will not be provided for leftover or damaged materials. Bonus points will be added to the final score equal to the amount of money that was not used.

Teams will be allowed time to build and test their nests. Competitors are allowed to bring diagrams to help them build their nests. After the time is up, all nests will be impounded and no changes will be allowed!

All nests must be designed to sit on the testing platform, or branches, without additional support and cannot be tied or anchored to the platform.

### Testing Procedure:

After the nest has been positioned on the testing platform, team members will begin adding pennies to the nest one at a time. After the first penny has been added, no adjustments to the nest or its position on the testing platform are allowed! Testing will end when a penny falls through the nest or falls out of the top of the nest. Dumping extra pennies into the nest at the last minute is not allowed and the team will earn a zero score!

The nest that holds the highest overall mass of pennies will be declared the winner! In case of a tie, the lightest nest will be the winner.

### The Nest Store

3 strips of paper .....	1¢
3 toothpicks.....	1¢
20 cm of thread.....	5¢
1 piece of pipe cleaner.....	5¢

No refunds or replacements!

## Event Score Sheets

Team Members : \_\_\_\_\_



Mass of Nest = \_\_\_\_\_ g

Total Mass Held \_\_\_\_\_ g

Bonus Points + \_\_\_\_\_ ¢

Final Score = \_\_\_\_\_ points

Team Members : \_\_\_\_\_



Mass of Nest = \_\_\_\_\_ g

Total Mass Held \_\_\_\_\_ g

Bonus Points + \_\_\_\_\_ ¢

Final Score = \_\_\_\_\_ points

Team Members : \_\_\_\_\_



Mass of Nest = \_\_\_\_\_ g

Total Mass Held \_\_\_\_\_ g

Bonus Points + \_\_\_\_\_ ¢

Final Score = \_\_\_\_\_ points

Team Members : \_\_\_\_\_



Mass of Nest = \_\_\_\_\_ g

Total Mass Held \_\_\_\_\_ g

Bonus Points + \_\_\_\_\_ ¢

Final Score = \_\_\_\_\_ points



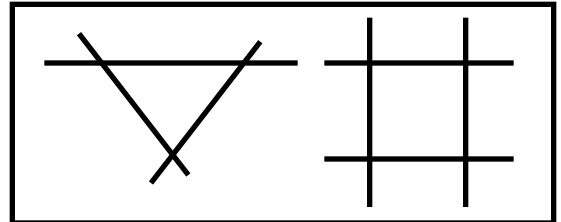
## Teacher Information

### Materials:

- (1) Collect the materials listed on the project page - paper strips, toothpicks, thread, and pipe cleaners. I use a paper shredder to create small strips out of regular 8 1/2" x 11" paper. If you don't have a shredder, cut standard copy paper into strips that are no more than 1 cm wide. You can substitute yarn, string, or dental floss for the thread.
- (2) Provide 100 pennies for each team or use the "bird bucks" certificates worth \$1.00 at the Nest Store. Teams are not allowed loan money to other teams or add extra money from their own pockets. Any leftover money should be counted as bonus points and added to the final score.
- (3) Materials that are damaged will not be replaced. Refunds for unused materials will not be provided.

### Testing Procedure:

- (1) Provide a testing platform created out of 3-4 tree branches or 12" rulers. Arrange the branches in one of the patterns shown. You will need to have the platform available during the building stage to give the students an idea of the size requirements for the nest.



- (2) Center the ends of the testing platform on the top of 3-4 stacks of books or boxes. The nests must be able to sit on top of the platform without additional support or anchors.
- (3) Once students have positioned the nest on the platform and added the first penny, no adjustments to the nest or its position are allowed!
- (4) Testing is finished when a penny falls through the bottom of the nest or falls off the top of a full nest. Find the mass of the pennies held and add bonus points to calculate the final score. In the case of a tie, the lightest nest will be the winner.

**Additional Resources:**

Explore these websites for additional activities and background information on bird nests.

**Bird Nests**

<http://www.biology.eku.edu/RITCHISO/birdnests.html>

A great site detailing the different types of nests with pictures and descriptions for each.

**Bird Nests and Nest Building**

[http://www.hard.dst.ca.us/hayshore/library/bird5\\_96.htm](http://www.hard.dst.ca.us/hayshore/library/bird5_96.htm)

An interesting article about birds and the different types of nests they build.

**Eagles to the Nest**

<http://www.indiana.edu/~bradwood/eagles/nest.htm>

This page provides instructions on the process of building an eagle's nest.

**Master Builders**

<http://www.stanfordalumni.org/birdsite/text/essays/Masterbuilders.html>

This page provides background information on bird nests as well as a graphic illustrating different types of nests.

**What's in a Nest?**

[http://wings.avkids.com/Curriculum/Birds/whats\\_in\\_a\\_nest\\_summary.html](http://wings.avkids.com/Curriculum/Birds/whats_in_a_nest_summary.html)

This page offers a lesson plan to compare different types of nests and the materials that are used in each.

# Bird Buck



\$1.00



May only be used in the Nest Store!

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