

# Engineering Nests

## Criteria for Product

Guide students to include the following on the list they come up with during Investigate:

- Must hold together on its own
- Must be large enough and strong enough to hold three eggs and a toy bird
- Must sit on a branch without falling while holding the eggs and the bird

## Constraints for Challenge

- May use only materials that birds would use
- Must complete each stage of the process within the time limit

## Materials

### Nest Materials (for class)

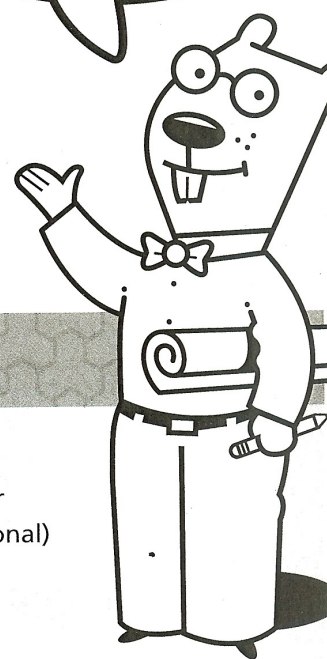
- Straw or hay
- Dried grass
- Dried moss
- Twigs
- Leaves
- 2 bags of feathers
- 2 pts. of mud
- 1–2 rolls of string or yarn
- A few paper bags
- Newspapers

### Additional Materials

- Computer with projector
- Document camera (optional)
- Video camera (optional)
- Pencils
- Plain paper
- Digital timer
- Job cards (page 10)
- 3 hard-boiled eggs
- Stuffed toy bird
- Sturdy forked branch
- Tape measure

## Challenge

Birds are natural engineers, building nests for their eggs in spring. Students learn about biomimicry engineering as they imitate birds by designing and building nests.



*Note: See Before You Begin. Gather a grocery bag full of each item unless otherwise noted.*