

# Build a bird's nest

## Teachers' notes

It can be really tough being a small bird living in our suburbs. They have to deal with other birds, cats, dogs, people, cars and finding the right habitat. Breeding time is extra challenging. Not only do they need to find a suitable place to build their nest and good construction materials, but they need to protect their eggs and then their babies from predators. Different birds do this in different ways. Many small birds like Red-browed Finches hide their nests in dense shrubs, other birds like Willie Wagtails nest out on open branches. Masked Lapwings (also called Spur-winged Plovers) take this to the next level – they barely bother with a nest, just lay their eggs on the grass.

Try having your class building their own cup-shaped nests, make some eggs and then put them outside their houses or on school grounds to see what predators might be around.

- This nest predation experiment can be adapted for both primary and high school students. At appropriate levels students can:
- Design a hypothesis to examine whether nest predation is greater in dense shrubs or in the open.
- Make predictions about what nest predators might be lurking in their neighbourhood and discuss what risks birds face in the urban landscape.
- Table or graph the entire class's results and draw conclusions based on their data (Was nest predation higher in shrubs or in the open? Who was responsible for nest predation?).
- Look at the value of using multiple nests instead of only an individual's data (the importance of sample size in scientific experiments).
- Investigate limitations to using artificial eggs/nests – what role might mum and dad play in keeping eggs safe?
- Discuss what the students can do in their own space for native birds.

### Materials

- Tennis ball cut in half (get mum or dad to do this for you) or 2 x small dip containers
- PVC glue
- Natural and man-made materials
- Modeling clay/plasticine



Ask the students to pretend they are a bird. Search for natural materials like grass, twigs and leaves and also man-made materials like wool, lint, fake spiders web and string that they can use to build their nest. Coconut fibre (available from nurseries) makes a great base for a nest to then add other materials to.



Put a small amount of glue on the outside of the halved tennis ball or small container. Add nest materials to the outside and shape around the nest. Add some glue and materials to the inside of the nest as well (baby birds need a nice soft bed), but not too much as you need to have room for the eggs.

Want an extra challenge? Get the students to pretend all you have to use is your bird beak – use chopsticks or even toothpicks to pick up their nesting material and stick it to your nests. Think about how difficult it is for birds – who also don't have glue, to weave their nests!

Once your nest has taken shape, take 2 small lumps of clay and shape them into 2 eggs for each nest you are building. Gently place them in their nests.

Get each student to take their 2 nests – put one in a dense shrub and another in an open spot – on an exposed branch or on a clothesline (but somewhere you can safely check on them). This can be done at home or on the school grounds. If something tries to attack their eggs (mistaking them for the real thing), tell-tail marks will be left behind in the soft clay eggs. In some cases, the eggs, and sometimes the whole nest, might go missing!

Have the students check on your nests every day and when they see evidence of nest predation, bring the nests inside for a closer look, they might need a magnifying glass to get a good look. If the nests are at home, have them bring them in to the class after one week to collate the results.



#### Typical predators and their evidence:

- Birds – leave triangle marks in the egg – big birds (like Pied Currawongs and Ravens) will leave big triangles, small birds will leave small marks.
- Rats/mice – will leave 4 (2 top and 2 bottom) teeth marks. They will also often completely chew eggs till they fall apart.
- Cats – generally they will slice at an egg with their paw.
- Lizards – lots of little dots arranged in a mouth-shape.

#### Think about:

- What predators are around in your neighbourhood?
- Why some birds might nest in dense shrubs? Why does this help them?
- Why do some birds nest in the open? What might they do differently to birds that nest in dense shrubs?
- What can you do to make your garden safe for birds to build a nest?

Mail your results using the attached form to: Nest Experiment, BirdLife Discovery Centre, Newington Armory, 1 Jamieson St, Sydney Olympic Park, NSW 2127. Each class will go into the draw for a prize.

We will include your results on the Birds in Backyards website. Please contact [holly.parsons@birdlife.org.au](mailto:holly.parsons@birdlife.org.au) if you have any questions.



Teacher Name: \_\_\_\_\_

Class/School: \_\_\_\_\_

Contact Details: \_\_\_\_\_

Dense shrubs nest: attacked  not attacked

What day did you notice your nest was attacked?

Sunday  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday

Nest predator

Bird  Rat/mouse  Cat  Lizard  Unknown  Other

Open nest: attacked  not attacked

What day did you notice your nest was attacked?

Sunday  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday

Nest predator

Bird  Rat/mouse  Cat  Lizard  Unknown  Other