Overview
Gourds make great natural homes for birds. Making a birdhouse is a great arts and crafts activity that is simple and fun for the classroom, after-school program, or family. And growing your own gourds is half the fun of making one! Below are 10 steps to follow in order to ensure a successful gourd harvest and abundant homes for your feathered friends.

Objectives
Students will:
• select seeds, prepare beds, plant, harvest, dry, and craft a gourd birdhouse.

Time
Grow: 140 days
Dry: 6 months
Craft: 3 hours

Materials
• seeds for hard-shelled gourds appropriate for birdhouses
• garden space with full sun
• trellis (optional)
• pruning sheers
• tub of warm soapy water
• scrub brush
• hole saw attachment and drill

Instructions
1. Selecting:
• Birdhouses can be made from all different types of hard-shell gourds. The most commonly used one is the bottle gourd (lagenaria siceraria), which is often called birdhouse gourd. Select the seeds that will work best for your birdhouse projects.

2. Amending:
• Gourds prefer a slightly acidic soil (PH of 6 - 6.5).
• They are also very heavy feeders and love rich composted areas.

3. Planting:
• Do not plant until all danger of frost has past. Hard-shelled gourds are heat loving plants and so should only be planted in areas that receive full sun.
• Plant in rows about 8-10 feet apart.
• They'll germinate in about 10 days and take up to 140 days till maturity.
• Water thoroughly every week and top dress them in the summer.
• Bottle gourds can also easily grow up trellises, fences, and arbors.
• Can be started indoors and transplanted in the garden. See specific seed packet for more information.

4. Harvesting:
• Make sure not to harvest them too early. Be sure to harvest after the first hard frost. Gourds that stay on the vine longer are usually better quality than those cut off the vine early.
• When harvesting, cut vine with pruning shears.
• If they are growing on the ground, cut the gourd from the vine (after the vine is totally dead) leaving a 3 - 4" stem.
• If they are growing on a trellis, leave them on the vine all winter long. The snow and ice will not damage them.

5. Drying:
• Good drying conditions are essential to curing gourds properly.
• Drying indoors: Curing can take anywhere from 4 months or more. Dry them inside on wooden pallets, in a well-ventilated place, and placed so they don’t touch each other. The key to drying gourds is good air circulation.
• Drying outdoors: Curing can take 1 to 6 months. Natural ventilation will cure them well.
• During the drying process, the outer skin hardens in a few weeks, but the inside takes much longer. As the water evaporates through the skin, a mold naturally forms on the outside. This is a normal process and is not an indication of a rotting gourd.

6. Preparing:
• Be sure the gourd is completely dry before working with it. It should be lightweight and the seeds should rattle.
• Choose dry gourds that have hard, firm shells. The gourd size will govern the kind of bird that will be attracted. The ball of the gourd should be large enough for a bird to turn around easily. Many birds delight in the long deep cavity offered by some gourd shapes.

7. Cleaning:
• Clean the gourds in a tub full of warm, soapy water.
• Use a scrub brush to scrub off the black, moldy outer layer. This may take some time and markings from where the mold grows will probably still be apparent, giving your gourd unique character.
8. Cutting:
- The size and placement of where you cut the hole in your gourd birdhouse will determine which type of bird it attracts. Use the chart below as a guide in choosing the size and placement of the birdhouse opening.
- One way to get a perfect-sized hole is to buy an appropriate sized hole saw to put on a drill.

9. Decorating:
- Use a wood burning tool to give your birdhouse a unique look and feel.

10. Hanging:
- Hang the gourd on your front porch, backyard tree, fence post, or anywhere else that seems like a pleasant location for a bird’s abode.

<table>
<thead>
<tr>
<th>TYPE OF BIRD</th>
<th>SIZE GOURD</th>
<th>SIZE HOLE</th>
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<tbody>
<tr>
<td>House Wren</td>
<td>6&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>Carolina Wren</td>
<td>6&quot;</td>
<td>1 1/2&quot;</td>
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<tr>
<td>Chickadee</td>
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<td>1 1/8&quot;</td>
</tr>
<tr>
<td>Tufted Titmouse</td>
<td>8&quot;</td>
<td>1 14&quot;</td>
</tr>
<tr>
<td>Downy Woodpecker</td>
<td>8&quot;</td>
<td>1 1/4&quot;</td>
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<tr>
<td>White Breasted Nuthatch</td>
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<td>1 1/4&quot;</td>
</tr>
<tr>
<td>Small Owl</td>
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<td>2 1/4&quot;</td>
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<tr>
<td>Bluebird</td>
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<td>Hairy Woodpecker</td>
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<td>1 5/8&quot;</td>
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<td>Crested Flycatcher</td>
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<tr>
<td>Flicker</td>
<td>16&quot;</td>
<td>2 1/2&quot;</td>
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