Who's Making That Noise?

Kindergarten

Science

SC11006

Wake Forest®
School of Medicine
Who's Making That Noise?

Kindergarten Science

Standards/Objectives
K-LS1-1
K-ESS3-1

Overview
You are camping out with friends. Noises in the night are keeping everyone awake! Who is making that noise? Students will explore concepts related to life science and earth & space science.
Who's Making That Noise?

<table>
<thead>
<tr>
<th>Table of Contents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PBL Problem Guide</td>
<td>4</td>
</tr>
<tr>
<td>PBL Resources</td>
<td>5</td>
</tr>
<tr>
<td>Student Problem</td>
<td>6</td>
</tr>
<tr>
<td>Key Facts</td>
<td>7</td>
</tr>
<tr>
<td>Need to Knows/Learning Issues</td>
<td>8</td>
</tr>
<tr>
<td>Additional Information</td>
<td>9</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>10</td>
</tr>
<tr>
<td>Learning Issue Resource Guide</td>
<td>11</td>
</tr>
<tr>
<td>Final Product/Writing Guide</td>
<td>12</td>
</tr>
<tr>
<td>Rubric</td>
<td>13</td>
</tr>
</tbody>
</table>
Timeframe
This lesson plan will take approximately 1 - 1.5 hours.

Step-by-step guide
- As a whole group, read the STUDENT PROBLEM aloud [page 6].
- As a whole group, help students list What We Know [FACTS, page 7].
- As a whole group, help students list What We Need to Know [NEED TO KNOWS & LEARNING ISSUES, page 8].
- As a whole group, help students list POSSIBLE HYPOTHESES [page 10].
- Allow teams to gather materials and create a plan with one DEFENDABLE SOLUTION for Final Product [page 12].
- Teams create and present DEFENDABLE SOLUTION and write, draw or tell about ACTION PLAN [page 12].
<table>
<thead>
<tr>
<th>Resources provided</th>
<th>Resources to assemble</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included with this case are:</td>
<td>You may wish to assemble the following resources ahead of time:</td>
</tr>
<tr>
<td>• Amphibian Sounds website</td>
<td>• Lifecycle of a Frog Set</td>
</tr>
<tr>
<td>• Insect Sounds website</td>
<td>• Jumbo Plastic Insects</td>
</tr>
<tr>
<td></td>
<td>• National Geographic Kids™: Frogs by Elizabeth Carney</td>
</tr>
<tr>
<td></td>
<td>• Snakes, Salamanders and Lizards by Diane Burns</td>
</tr>
<tr>
<td></td>
<td>• Big Book of Bugs by Theresa Greenaway</td>
</tr>
<tr>
<td></td>
<td>• Model Magic™, Play-Doh™, etc.</td>
</tr>
</tbody>
</table>
Who's Making That Noise?

Student Problem

You and your friends are camping in your backyard. There are some very annoying noises that are keeping you awake. You've heard your parents complain about these new night sounds. You and your friends decide to take your flashlights and try to find who or what is making the strange noises. The only change to your neighborhood is your neighbor's new pool.

Consider:
• What could be making the noise?
Key Facts

- You are camping in your backyard with your friends.
- Annoying noises are keeping you and your friends awake.
- You have heard your parents complain about the new night sounds.
- You and your friends decide to find out who or what is making that noise.
- The only change to your neighborhood is that your neighbors have put in a new pool.
### Need-to-knows / Learning Issues

#### Need to Knows
- How big is your neighbor's pool?
- Is the pool covered at night?

#### Learning Issues
- What animals live near water?
- What sounds do these animals make?
- Why do they make these sounds?

#### Need to Know Answers
- The facilitator can decide the size of the pool.
- There is no cover on the pool.

#### Learning Issue Resources
Who’s Making That Noise?

**Additional Information**

After listing the facts and need to knows, allow students to research Learning Issues by looking at insects and amphibians using the resources listed in the Learning Issue Resource Guide, page 11.

In addition, allow students to listen to sounds created by amphibians and insects.

Once students have decided who is making the noise, allow them to draw or create the animal using Model Magic™, Play-Doh™, or various art supplies.
Who’s Making That Noise?

Hypotheses

- Hypotheses will vary by who or what teams think is making the noise.
### WEBSITES

- Amphibian Sounds
  - [www.naturebits.org/amphibians.php](http://www.naturebits.org/amphibians.php)
- Insect Sounds
  - [www.natursongs.com/insects.html](http://www.natursongs.com/insects.html)

### TEXT RESOURCES

- National Geograpic Kids™: Frogs by Elizabeth Carney
- Snakes, Salamanders and Lizards by Diane Burns
- Big Book of Bugs by Theresa Greenaway

### MANIPULATIVES

- Lifecycle of a Frog Set
- Jumbo Plastic Insects
- Model Magic™, Play-Doh™, etc.
Team
• Each team will decide what animal they think is making the noise. Then, teams will create a representation of that insect or amphibian (drawing, sculpted in clay, etc).

Individual
• Each student will write, draw or verbally explain why they determined their creature was the source of the noise in the neighborhood.
# Rubric

<table>
<thead>
<tr>
<th>AREA</th>
<th>ABOVE AVERAGE</th>
<th>AVERAGE</th>
<th>BELOW AVERAGE</th>
<th>NO EVIDENCE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Product</td>
<td>- All Learning Issues addressed&lt;br&gt;- Three or more hypotheses present&lt;br&gt;- High quality final product</td>
<td>- Most Learning Issues addressed&lt;br&gt;- Two hypotheses present&lt;br&gt;- Roles somewhat defined&lt;br&gt;- Fair quality final product</td>
<td>- Few learning issues addressed&lt;br&gt;- One hypothesis present&lt;br&gt;- Low quality final product</td>
<td>- No learning issues addressed&lt;br&gt;- No hypotheses present&lt;br&gt;- No final product</td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td>- Individual works well with group members&lt;br&gt;- Individual communicates well with group members&lt;br&gt;- Individual carries out their individual responsibilities</td>
<td>- Individual works acceptably with group members&lt;br&gt;- Individual communicates acceptably with group members&lt;br&gt;- Individual mostly carries out their individual responsibilities</td>
<td>- Individual does not work well with group members&lt;br&gt;- Individual does not communicate well with group members&lt;br&gt;- Individual attempts but fails to carry out their individual responsibilities</td>
<td>- Individual interferes with group members&lt;br&gt;- Individual does not communicate at all&lt;br&gt;- Individual does not attempt to carry out their individual responsibilities</td>
<td></td>
</tr>
</tbody>
</table>

24 – 27 Points = Above Average  
15 – 23 = Average  
6 – 14 = Below Average  
0 – 6 = Failing
Wake Forest School of Medicine Problem-Based Learning provides essential case studies to K–12 teachers across the United States. These cases help support problem-based learning enrichment programs to focus on implementing Common Core State Standards. Access useful and easy-to implement case studies on Math, English Language and other STEM topics online at www.wakeproblembasedlearning.com.