

## Second Grade Science Lesson

<b><u>Lesson Title</u></b>	Can We Live Without Bees?
<b><u>Discipline</u></b>	Science
<b><u>Grade Level</u></b>	Grade 2

### Central Learning Focus

<b><u>Learning Standard(s)</u></b>	<b>2-LS2-2.:</b> Develop a simple model that illustrates how plants and animals depend on each other for survival.
<b><u>Student Learning Objective(s)</u></b>	Students will be able to describe pollination and explain how bees participate in the pollination process.
<b><u>Prior Knowledge</u></b>	Prior to this learning segment, students learned that plants need sunlight, water, air, and food to grow and survive. From this information, students learned that plants need air to take in carbon dioxide and release oxygen, roots carry water and nutrients to the plant, and that plants take energy from the sun to produce food.

### Instructional Strategies and Learning Tasks

<b><u>Resources and Materials</u></b>	Smartboard (PowerPoint slides), Cheetos, Small bowls, Easel paper, Post-it notes, Pictures of a white flower, Can We Live Without Bees? Worksheet, Cut out of a bee and flowers (with honey)
<b><u>Launch</u></b>	On the board will be two pieces of easel paper with the title “Do you think bees are important in the world?” One piece will say “Yes” and the other will say “No.” I will pass out post-it notes to every student and have them put their name on it. Students will come up to the board and put their post-it note on whatever side they please. Once all students have placed their post-it notes, I will ask a handful of them why they chose to post it there.
<b><u>Mini-Lesson</u></b>	I will ask the students if they know what pollination is and have them turn and talk with a partner. Students will then share their answers with the class. I will explain that flowers need to exchange pollen in order to make seeds that will create more plants. Flowers need pollinators to take pollen from flowers and bring that pollen to another flower. In order to show students how these pollinators take pollen, I will have a cut out of two flowers and a bee. In the middle of one flower, I will have honey stuck to it. I will hold both flowers and one student come up take the “pollen” from the flower with honey and transfer that “pollen” to the other flower. I will then ask students to raise their hand if they would change where they put their post-it note during the launch activity.

<b><u>Structured Practice</u></b>	<p>I will tell the students that today they are going to act out pollination. I will give each student a picture of a flower and a small bowl filled with Cheetos. Students will eat a handful of Cheetos without brushing or licking the crumbs off from their hands. I will tell students that their bees (their fingers) need to gather pollen from other flowers. They should fly around the classroom, landing on six other students' flowers with their sticky bee legs. Before landing on each flower, students must eat another Cheetos from their bowl. Students will then complete the Can We Live Without Bees? Worksheet. In the worksheet, students will explain the process of pollination and what happens when a bee lands on a flower.</p> <p>(If a student does not want to eat the Cheetos, they can just touch the Cheetos. If a student does not want to touch the Cheetos, they will walk around with a partner as he/she is pollinating other flowers.)</p>
<b><u>Closure</u></b>	<p>As a class, students will discuss what they observed and I will ask prompting question to have students expand on their thoughts. They will share what they thought of bees before the lesson and what they think of them now.</p>

### Assessments

<b><u>Type and description of assessments</u></b>	<p>Students will be both formally and informally assessed throughout the learning segment.</p> <p><b>Informal Assessments:</b> Students will be informally assessed as I walk around the classroom to listen as students are participated in the turn and talk during the instruction. I will document who is struggling with the material to see if they later understood it during the structured practice. At the end of the structured practice, I will be able to see who understands that bees are important when I ask those that said bees are not important if they would change their answer. Students will also be informally assessed as I ask questions prompting and higher order thinking questions during the mini-lesson, structured practice, and closure.</p> <p><b>Formal Assessments:</b> Students will be formally assessed through their description of pollination and their observations in their Can We Live Without Bees? Worksheet.</p>
<b><u>Modifications/Differentiation</u></b>	<p>Modifications to the assessment will be made to accommodate students' needs.</p> <p><b>Learning Needs:</b> If students are struggling to physically finish their worksheet, an oral explanation will prove their understanding. ENL students and struggling learners may have difficulty writing in complete sentences, so I will provide them with a modified worksheet that breaks down the questions.</p> <p><b>Extension:</b> After students that need more of a challenge have finished their worksheet, they will be asked to write a fictional story where they are a pollinator.</p>