SMILE Lesson Plan – Rotation B

Name:
Lesson Plan (#) _____of_____
Grade Level: _____ Duration: _____

Phase 1: General Planning

Central Focus: *No lesson is taught in isolation. Individual lessons are connected to previous and/or subsequent lessons. The central focus is the "bigger" idea or concept that connects multiple lessons. Consider: What do you want your students to learn? What are the important or core understandings that you want students to develop on this topic?*
Essential structures of the bee relevant to pollination.

Content Standards (Common Core/ NGSS): *List relevant state-adopted content area standards. Include the number and text of each standard that is being addressed. If only a portion of a standard is being addressed, then strike though the portions that are not relevant.*
LS2.A: Interdependent Relationships in Ecosystems • Plants depend on animals for pollination or to move their seeds around. ETS1.B: Developing Possible Solutions • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.(secondary)

Lesson Objective(s)/ (Single Lesson) *Objectives are what students will be able to do as a result of this one (1) lesson. These objectives will directly support and align to the Learning Segment. They should also align with standards, instructional activities, and assessments. Write objectives using clear, measureable terminology.*	**Formative Assessment:** *How will students demonstrate their learning? What activities or products will you use to check for students' understanding as you progress through this lesson? What student product will you collect at the end of the lesson?*
Students will explain how bees disperse pollen from flower to flower.	Observation record sheet and a claim supported by evidence as to what structures and functions of the bee are important to pollination.
Students will identify which parts of the bee are important in pollination. • Fuzzy bodies and legs that pollen sticks to • Wings to fly them around and shake the flower so pollen dislodges	
Students will make claims about relevant structures and provide evidence to support them.	

Instructional Resources and Materials: *List **key** resources and materials necessary to complete this lesson. Consider both student and teacher materials. In a simple sentence or phrase explain how each of these materials support the lesson objective, student FOK, and/or student developmental, linguistic or cognitive needs,*

- Cheetos to represent the pollen in the stamen of the flower.
- Flower cut out with lunch bag attached to represent the flower petals and stamen.
- Bee finger puppets to allow students to represent the bees sticky legs and body with their fingers.
- Observations page to record their observations are they move through the activity
- Claims and evidence page to put their final scientific ideas.

Technology*: What technology will you and/or your students be using? What alternative resources could be used if technology malfunctions?*

- Promethean board to project the video, DocCam diagram of the bee, and sentence frames.

Prior Academic Learning and Experiences:

Describe the knowledge, skills, personal/cultural assets your students already have related to the lesson's learning objectives, language expectations, and activities of this lesson. What do they know? What can they do? What are they still learning to do? Make clear connections to their skills and knowledge. If possible **Use or Reference actual Assessment Data.**

Focus on what students

a. can do independently.
b. can do with assistance from a peer or teacher.
c. cannot do at all but will learn as a result of this lesson.

Students understand that bees collect pollen and that is has to do with flowers, however they are unsure of the process of pollination and structures involved in both flower and bee. Students have watched the slow motion video of a bee pollinating a field of flower, made predictions and brainstormed scientific ideas relative to pollination. Most students have also seen The Bee Movie, familiarizing them with vocabulary.

Anticipatory Set: *(Activating Student Background Knowledge, Establishing Rapport and Motivation, Setting Learning and Behavior Expectations)*

(T) Transition from Previous Activity: *How will you transition students from the prior activity to this lesson/ activity? (List steps/expectations)*	• Students will move on a "1,2,3 Count" from their desks to the rug. • Students will pick a "smart spot" on the rug and wait for further instruction.
(B) Behavior Expectations/Conduct: *What are your expectations for students' behavior? What teaching behaviors/strategies will you implement during the anticipatory set and main instructional activity that encourages and supports appropriate student behavior and minimize behavior issues?*	• Students will be filled engaged and participating int he lesson. • Students will work in partners respectfully and participating in equal amounts of work. • Teacher will utilize a "3 count" to move students to/from rug and into partner talk. • Teacher will ring a bell to bring students back together • Teacher will call on off task or disengaged students for answers to bring them back into the lesson. • Teacher will offer table points to exemplary table groups

(C) Connection to Students: *Given what you know your students can actually do, design an **INTRO activity** that*
• *Allows students to use their prior knowledge in a way that relates to the lesson.*
• *Incorporates or builds on RELEVANT student personal, cultural experiences and/or interests to both excite and situate students in understanding the learning objectives.*
	• Students will re-watch the slow motion video of the bee dislodging pollen
	• Students will use their observation record sheets to write down observations seen in the video specifically focused on the bee's body
	• Whole group will work together to label a diagram of a bee and it's body parts and it's special structures/features
	  • Bodies-fuzzy and soft
	  • Legs- sticky
	  • Wings- light and quick
	  • Antenna- home to bee's senses

Supporting Diverse Learners (differentiation and scaffolds) *What will you do to support students with different abilities to succeed during this lesson? (E.g. linguistic, academic, learning, behavior, students functioning above grade level.) How will you incorporate or apply principles of Universal Design for Learning (UDL) such as multiple means of representation, expression and engagement.*	
List subgroups and/or individual students. *Refer to Context for Learning*	**List supports:** (*scaffolds, modifications and/or accommodations)*
ELL	• Heterogenous partnerships for Pollination activity portion of lesson • Bee diagram projected and labeled for reference • Differentiated observation and science ideas sheets • Posted sentence frames to utilize during whole group and partner discussion

Main Portion (body) of the Lesson: *How will you present/teach the content and skills to your students? When and how will students practice the skills/concepts with support (teacher guided or in collaboration with peers)? How will you provide students opportunities to master what you taught them?(Independent practice) Describe in sequential order what students are doing during the lesson (not what the teacher is doing). (Remember all tasks/activities need to relate to the learning objectives). List approximate time for each task/step.*

Time in min.	*How will you present/teach the content and skills to your students? Describe what will be happening at various points in the lesson. Base these descriptions on what students are doing **not** what the teacher is doing*	**Checks for Understanding.** *What questions or learning tasks will you present that allows you to check for student understanding?* • *Will students be engaged (partner talk, small group activity, quick write, etc)?* • *Do your questions or tasks represent a range LOT and HOT?*
10	Launch	

	• Students will be called to the rug and told to bring their pencils and observation sheet and provided a whiteboard to write on
	• Students will watch the slow motion video of the bee, focusing on the bee's body
	  • What does it look like?
	  • What is it doing?
	  • What are some special features about the bee's body that you can see?
	• Students will turn and talk about what they saw and what they think is special about the bee
		• Students will write down their observations on their record sheet as the video plays
		• Turn and talk

	• Students will participate in whole group discussion where the teacher labels a class diagram about the bee's body parts and it's special features	• Students will call out features from their observation sheets or memory to add to the chart
	• Once class diagram is full of observations and structural features of the bee, students will be released back to their seats to participate in pollination activity.	
30-45	Explore	
	Students will be paired in heterogenous groups of two and each given a flower cut out with a cupcake liner filled with Cheetos on top, a bee finger puppet, and their observation packets.	
	• Students will put their fingers through the little holes in the bee puppet and "be the bee" • They will then be told to "fly" their bee to the flower and "land" on it. • Students will then dip their fingers into the cupcake liner and eat their Cheetos being told not to lick their fingers in-between. • Students will then "fly" their bees over to their partner's flower and "land" on it. • Students will record their observations.	• Heterogenous pairs during the activity. • Students will be able to draw their observations as well as writing them with words • The class bee chart will be up the entire time for reference.

	• Once the students have finished their "pollination activity" students will need to answer the following questions:
	  • What do their fingers represent?
	  • What do the cheetos represent?
	  • How are these structures and their functions important to pollination?
	• For the last question students will have to make a claim supported by the evidence they observed in the video and/or during the activity.	

Closure: *How will you bring closure to this activity/lesson? How will you firm student understanding at the end? How will you transition students to the next activity?*

Once students have established their claims and supporting evidence, we will come back together and debrief our new beliefs about what structures of the bee are important to pollination and why and add our new ideas to our class chart.