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Lesson Plan

Lesson Segment Focus: The Bees   **Lesson 3 of 4**

Course & topic addressed: Population of Bees   **Date: March 28, 2020 Grade: 3rd**

Student Outcomes

Specific learning objectives for this lesson.	For this lesson the main learning objective is for students to understand the declining og the bee population and what this does to the humans and the food chain. The second learning objective is for students to gain a full understanding of how to graph and plot data. The third learning outcome is for students to know how to use technology for research.
Describe the connection to previous lessons. (Prior knowledge of students this builds upon)	Lesson 1 of 4 was learning of the parts of the bee and what a colony is. Lesson 2 of 4 was learning what bees do in their colonies and with pollination. Lesson 3 of 4 is all about the bee colonies /population from 2016-2018. Lesson 4 of 4 will be the production of honey (synthetic/natural).
Knowledge of students background (personal, cultural, or community assets)	Students should already know the parts of the bee, all about the colony, pollination, and jobs of each bee.

State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include state abbreviation and number & text of the standard.	**3-LS2-1 Construct an argument that some animals form groups that help members survive.** **3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all**

Academic Language Support

What planned instructional supports might you use to assist students to understand key academic language to express and develop their content learning? What will you do to provide varying supports for students at different levels of academic language development?	As the teacher, I will be giving one on one help with each group so they fully understand what they are doing. I will also be helping students to have a full background knowledge before beginning this project. Also each student will be pair based on their comprehension skills.

Key Vocabulary

What vocabulary terms/content specific terminology must be addressed for students to master the lesson?	**Decreased** **Honey Bee** **Population** **Colony** **Pollination** **Data**

Materials

Materials needed by teacher for **this lesson**.	Computers/computer lab 2016-2018 data sheets
Materials needed by students for **this lesson**.	Computers/computer lab 2016-2018 Data Sheets Excel spreadsheet templates Highlighters Pencils Scratch paper

Lesson Timeline with Instructional Strategies & Learning Tasks (This should be VERY DETAILED)

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
20 minutes	**Introduction**:	The teacher is to sit on the whole group carpet and review the past two lessons with the students. Ask questions like, "Can anyone remember and name a body part of the honey bee?" Allow a few students to answer. Now ask, "Who can tell me what a colony is? Allow time for answers. Finally ask, "What are some of the bee jobs in the colony?" Allow time for answers. Then if there are any other questions felt necessary to the lesson ask them before moving on. Now move into instruction of the current lesson. For this lesson start off with asking more question such as, "What does pollination do for plants?", "What does it do for animals?", and "What does it do for humans?" Then ask, "What is to

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
		happen if the bee population increases, decreases, or goes completely extinct?" Post the definition of increase, decrease, and extinct in large print on the board. Explain to students that we will be breaking off into pairs and going to the computer labs to use a software to help table data of the colony population changes in 2016, 2017, 2018 from seven specific states in the U.S. Then explain that on the desktop of their computers is a link is an excel spreadsheet and that is where they will be placing their data from the printed out sheets you give them. Escort students down to computer lab, pair them off, give each pair the printed off data sheets. Go over the data sheets and what students are to do with them. Go around giving constant assistance to everyone considering their age and the use of technology. Print off the data table sheets pages 4-7 for each year 2016-2018 from this site: https://usda.library.cornell.edu/concern/publications/rn301137d?locale=en
40 minutes	**Instruction:**	Students will participate in whole group instruction and then go to the computer lab in their paired groups. Once students get to their computers. 1:2. Studnets will then open the already created template of excel found on the desktop. Students will review the data sheets given by the teacher for the years of 2016, 2017, 2018. Students will only focus on the seven states: Arkansas, Florida, Michigan, Montana, New York, Tennessee, Wisconsin. Using a highlighter, students will highlight each of those 7 states, the number of colonies starting at the beginning of each quarter, and how many colonies where lost/died off by the end of each quarter. For this lesson we are only focusing on how many colonies are left by the end of each quarter, not how many are added. Students will then take the starting number of each quarter and subtract the lost colonies number from the start and that will be what they put on their data chart for how many colonies were left in that quarter. After the spreadsheet templates are filled out for each year, students will be able to look on the comparison sheet and compare each years monthly averages to the yearly average of bee colonies in the specific seven states.
10 minutes	**Closure:**	As a class we will discuss what we found at our whole group instruction area. Students will be able to ask any remaining questions they have and compare data together.

Accommodations/Modifications

How might I modify instruction for:	.I might modify instruction by making larger groups and each student only focusing on one state and talking the

Remediation? Intervention? IEP/504? LEP/ESL?	others over with their peers.

Differentiation:

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	I will always be available to help each student in answering their questions. I could however introduce and teach excel a little before letting them figure out things on their own.

Assessments: Formative and/or Summative

Describe the tools/procedures that will be used in this lesson to monitor students' learning of the lesson objective/s (include type of assessment & what is assessed).	☐ Formative /☐ Summative	
	☐ Formative /☐ Summative	
	☐ Formative /☐ Summative	

Research/Theory

Identify theories or research that supports the approach you used.	

Lesson Reflection/Evaluation

What went well? What changes should be made? How will I use assessment data for next steps?	*TO BE FILLED IN AFTER TEACHING*

Include supporting material such as slides, pictures, copy of textbook, and handouts for any activities students will be using as part of your lesson.