## Lesson 6...Beautiful Bees- Kaylee

Science and Gardening RLS 2016.17

Dates: Sept. 19-21

## Extra day- life cycle, book, game, search

Unit Name	
K-1 Mastery	RWBAT explain the importance of bees and pollinators in our ecosystem.
2-3	RWBAT explain importance of bees and pollinators; RWBAT create a model to demonstrate the relationship of bees to their own ecosystem and food.
4-5	RWBAT explain importance of bees and pollinators; RWBAT create a model to demonstrate the relationship of bees to their own ecosystem and food.

	K-1	2-3	4-5
Objective/Standard	SWBAT identify and categorize different types of insects and explain traits and adaptations of each.	SWBAT identify and categorize different types of insects and explain traits and adaptations of each.	SWBAT identify and categorize different types of insects and explain traits and adaptations of each.
	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
Key Point(s) What/Why/How	Without pollinators, we would have very few plants!	Without pollinators, we would not have enough food in our ecosystem.	Without pollinators, we would not have enough food in our ecosystem.

## K-1 Lesson

Vocabulary	Pollen, pollinator, ecosystem
Materials	Bee diagram, bee worksheet, bee specimen
Intro	Some of us are a little scared of the bug friend we will discuss today, but
	we could not live without them- BEES! When I see a bee, I am not scared, I feel love for that bee and for how it helps make food for me and my family. Today, we will study why bees are important and we will carefully look for them in our garden.
	Bees give us the wonderful food that is honey, but they also are extremely important for all other food! Let's discover how this is true.

Core Lesson: I	As a scientist, I am always curious about my environment around me. Today, I am going to use my scientist skills to watch, record, and learn about bees in our garden. Review chart of a bee- how is it an insect and how do we know?
Guided Practice: We	Scholars, today we are going to discuss types of bees, draw them, look for them in the garden, and then read a book! SO much to learn about our friends the bees!
	Chart together on the board (KWL)- Write what students know about bees, want to know, and what our goal is to learn all together on chart.
	Show students the bee anatomy chart, and pass out their bee worksheets.
	Together let's discuss the bees anatomy and explain how they are adapted (CCD define) to their environment and how they help us! There are many types of bees, such as honey bees, wasps, bumblebees, and carpenter bees.
	All bees start as a little EGG! They have a life cycle (Define- CCD) with 4 stages. On your chart, we will draw and label the eggs phase. Bees live in a honeycomb or nest as small eggs. Then this egg grows into a larva- draw this in stage 2 and write the word larvae (explain what a larvae is). 3 <sup>rd</sup> they become a pupa, right after they hatch, and then, and adult that is able to fly!
	Together, fill in the bee life cycle charts. Spend the most time being detailed with the adult bee
	http://betsylough.weebly.com/uploads/1/9/7/4/19740141/843287106.jpg
Independent Practice: You	Read "Flight of the Honey Bee" all together, asking questions and pointing out where bees would live in our own garden.
	Flip to back of worksheet with the flower, and have students on their own draw and explain how a bee pollinates a flower, using their anatomy and adaptations knowledge from our core lesson.
Closure	IF there is time, take 5 minutes to quietly observe one bee together that Ms. P has safely in a jar. Show where in the garden the bee would pollinate our plants and how.

## 2-5 Lesson

Vocabulary	Pollen, pollinator, ecosystem
Materials	Bee diagram, bee worksheet, bee specimen
Intro	Some of us are a little scared of the bug friend we will discuss today, but
	we could not live without them- BEES! When I see a bee, I am not scared, I feel love for that bee and for how it helps make food for me and my family. Today, we will study why bees are important and we will carefully look for them in our garden.

	Bees give us the wonderful food that is honey, but they also are extremely
Complement	important for all other food! Let's discover how this is true.
Core Lesson: I	As a scientist, I am always curious about my environment around me.
	Today, I am going to use my scientist skills to watch, record, and learn about bees in our garden. Review chart of a bee- how is it an insect and
	how do we know?
	now do we know:
	Where have you seen bees? What do we do when we see a bee?
0.11.12	Explain scientist skills of observation, taking notes, exploration
Guided Practice: We	Scholars, today we are going to discuss types of bees, draw them, look for
	them in the garden, and then read a book! SO much to learn about our friends the bees!
	menus the bees!
	Chart together on the board (KWL)- Write what students know about
	bees, want to know, and what our goal is to learn all together on chart.
	Show students the bee anatomy chart, and pass out their bee worksheets.
	Together let's discuss the bees anatomy and explain how they are adapted
	(CCD define) to their environment and how they help us! There are many
	types of bees, such as honey bees, wasps, bumblebees, and carpenter
	bees.
	All bees start as a little EGG! They have a life cycle (Define- CCD) with 4
	stages. On your chart, we will draw and label the eggs phase. Bees live in a
	honeycomb or nest as small eggs. Then this egg grows into a larva- draw this in stage 2 and write the word larvae (explain what a larvae is). 3 <sup>rd</sup> they
	become a pupa, right after they hatch, and then, and adult that is able to
	fly!
	Together, fill in the bee life cycle charts. Spend the most time being
	detailed with the adult bee
	http://betsylough.weebly.com/uploads/1/9/7/4/19740141/843287106.jpg
	Where do you think bees would live in our garden? Predict! How could we
	attract new bees to our garden? (Discuss bee shortage in the USA and how
	students can be bee advocates and protectors).
Independent Practice: You	You will now walk around the garden to explore the bees habitat.
	On the back of your worksheet, there are spaces to record where a bee
	would live/pollinate in our garden, and space to draw how they would do
	this. You need to walk safely and silently so as not to scare animals away.
	If you see a bee, let me know and maybe I can get it with our net to see a
	closer look. When you see one, draw it's anatomy and where it
	waswatch closely so you can see how it uses it's legs and body to
	pollinate! (Define on CCD- pollination). 10 minutes to walk around!
Closure	Review students findings and share with class. Observe and take notes on
	all bees that were captured in our net and then release!
	Maybe read "Fight of the Honey Bee" if time allows.