

Lesson 4...Worm Study- Kaylee

Science and Gardening RLS 2016.17

Dates:

Unit Name	
K-1 Mastery	SWBAT safely make observations and come to a conclusion about where worms like to live and what they need to survive.
2-3	SWBAT make scientific observations and come to a conclusion in order to explain what worms needs to survive and how they make dirt.
4-5	SWBAT make scientific observations and come to a conclusion in order to explain what worms needs to survive and how they make dirt.

	K-1	2-3	4-5
Objective/Standard	SWBAT analyze where worms like to live and how they survive.	SWBAT evaluate how soil is created and defend the importance of decomposers in any ecosystem. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	SWBAT evaluate how soil is created and defend the importance of decomposers in any ecosystem. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
Key Point(s) What/Why/How	Worms do NOT like the light because they need to live in a dark, wet place like the soil. Worms like wet environments.	Worms decompose dead materials and when they secrete it, we have dirt! Worms do NOT like the light because they need to live in a dark, wet place like the soil.	Worms decompose dead materials and when they secrete it, we have dirt! Worms do NOT like the light because they need to live in a dark, wet place like the soil. Worms also need a wet environment to thrive, eat, and move.

K-1 Lesson

Objective	RWBAT observe where worms like to live and come to a conclusion about their habitat's traits. RWBAT make predictions and conclusions about their worm's habitats.
Key Point(s)	Worms like to live in soil, worms cannot live in light, worms make dirt

Vocabulary	Soil, light, habitat
Materials	Worms, spoons, containers, WORMS chart, habitat poster, scientific method worksheet for observations and experiments, paper towels
Intro	<p>What is an observation? (T&T and then write answers on board). Great job- this is when we look closely at something with our SCIENTIST EYES! This means that we are trying to learn more about the animal or plant by looking very closely and writing down what we see. Today you get to observe worms and dirt!</p> <p>We are going to do an experiment to see where worms like to live...do they prefer the light or dark? Why? Do they prefer wet or dry areas and why?</p> <p>Walk around class and let all students look at one worm in your hand for 5 seconds each and then T&T and tell a buddy what they noticed about the worm I was holding. What does the worm feel like? What color is he? How is he moving? Have students share answers with a buddy.</p>
Core Lesson: I (12 min)	<p>There are two parts to our experiment today! We are going to test if worms prefer a WET or DRY habitat and also if they need a LIGHT or DARK habitat. You are going to get a bowl to put the worm in, and a wet paper towel as well.</p> <p>Before we start, we will learn how to do an experiment! You need to PREDICT or GUESS what will happen to your worm. Hmmmmm...I think that my worm will like the light, and a wet environment, because he needs light and water to live right? Demonstrate writing or drawing this in the Predict section of the worksheet.</p> <p>After I write my predictions about the light and the water, I get to do my experiment.</p> <p>To test the LIGHT!</p> <ul style="list-style-type: none"> • Keep your worm in the plastic tub I gave you. • Hold half of the tub under the light and half under the shade cover over our carpet! • Watch the worm for 1 minute and see if he/she moves to the light or the dark. • Write down what you see. <p>To test the WATER!</p> <ul style="list-style-type: none"> • You will get one dry and one wet paper towel • Place the worm on the dry paper towel carefully • Watch if the worm goes to the wet towel • Where does he seem to prefer? Write it down <p>When you are done, you will write a CONCLUSION! (Define on board). Did he prefer light or dark? Wet or dry? Why is this? Where does he normally live? Write one sentence and draw a picture of where the worm likes to live.</p>
Guided Practice: We (5 min)	Pass out papers and pencils to students, and one tub and paper towel set to every group of 3.

	<p>Review the sections of the worksheet and have all students write their predictions (or draw for KINDER) of what the worm will prefer.</p> <p>Practice/pretend placing the tub half under light and half under dark, and putting a wet paper towel in the tub.</p> <p>Show where to record what they see, in addition to writing their final conclusion (or picture for Kinder).</p>
Independent Practice: You (11 min)	<p>All students should have papers, pencils, and their worm container (1 per group).</p> <p>Pass out worms to groups and students who are ready and waiting in LEARN. Put on timer for 10 mins. Cue students to do the light experiment, then the water one, then to write or draw what they see.</p> <p>If students are done early, they may draw a habitat or watch and write how their worm moves around the tub.</p>
Closure	<p>Collect all materials: practice passing back papers, pencils, then tubs to the left of each row, and ask 1 student to put all things away.</p> <p>Ask groups to raise hands and share their conclusions! What did the worm prefer? Why? How did he react to light and to water? Where does he normally live?</p> <p>Conclude: Worms like to live where most other animals don't...where it is WET and DARK!! In the soil underneath the earth!! They need water for their skin to stay nice and wet and they need it to be dark so they don't dry out and die. And WE need worms to make our soil. How can we help worms survive? What will you do next time you see a worm on the sidewalk?</p> <p>Safely line up in 45 seconds to leave the garden.</p>

2-5 Lesson

Objective	<p>SWBAT evaluate how soil is created and defend the importance of decomposers in any ecosystem.</p> <p>Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p> <p>RWBAT make predictions, test and experiment, and come to a conclusion about a worm and their habitat.</p>
Key Point(s)	<p>Worms break down dead materials to make soil.</p> <p>Worms' habitats needs to be WET and DARK for them to survive.</p> <p>Worms adapt to their environment.</p>
Vocabulary	Prediction, conclusion, soil, decomposer
Materials	Worms, spoons, containers, WORMS chart, habitat poster, scientific method worksheet and poster, paper towels

<p>Intro</p>	<p>What is an observation? (T&T and then write answers on board). Great job- this is when we look closely at something with our SCIENTIST EYES! This means that we are trying to learn more about the animal or plant by looking very closely and writing down what we see. Today you get to observe worms and dirt!</p> <p>We are going to do an experiment to see where worms like to live...do they prefer the light or dark? Why?</p> <p>Walk around class and let all students look at one worm in your hand for 5 seconds each and then T&T and tell a buddy what they noticed about the worm I was holding.</p>
<p>Core Lesson: I</p>	<p>There are two parts to our experiment today! We are going to test if worms prefer a WET or DRY habitat and also if they need a LIGHT or DARK habitat. You are going to get a bowl to put the worm in, and a wet paper towel as well.</p> <p>Explain what an EXPERIMENT is with Scientific Method GLAD poster. Review the 3 main parts we will do today and how an experiment works and WHY we do them. This is so exciting- our first scientific prediction of 2016!</p> <p>Before we start, we will learn how to do an experiment! You need to PREDICT or GUESS what will happen to your worm. Hmmm...I think that my worm will like the light, and a wet environment, because he needs light and water to live right? Demonstrate writing or drawing this in the Predict section of the worksheet.</p> <p>After I write my predictions about the light and the water, I get to do my experiment.</p> <p>To test the LIGHT!</p> <ul style="list-style-type: none"> • Keep your worm in the plastic tub I gave you. • Hold half of the tub under the light and half under the shade cover over our carpet! • Watch the worm for 1 minute and see if he/she moves to the light or the dark. • Write down what you see. <p>To test the WATER!</p> <ul style="list-style-type: none"> • You will get one dry and one wet paper towel • Place the worm on the dry paper towel carefully • Watch if the worm goes to the wet towel • Where does he seem to prefer? Write it down <p>When you are done, you will write a CONCLUSION! (Define on board). Did he prefer light or dark? Wet or dry? Why is this? Where does he normally live? Write one sentence and draw a picture of where the worm likes to live.</p>
<p>Guided Practice: We</p>	<p>Pass out papers and pencils to students, and one tub and paper towel set to every group of 3.</p> <p>Review the sections of the worksheet and have all students write</p>

	<p>their predictions of what the worm will prefer. This is independent.</p> <p>Practice/pretend placing the tub half under light and half under dark, and putting a wet paper towel in the tub.</p> <p>Show where to record what they see, in addition to writing their final conclusion, 3 sentences with a WHAT HOW AND WHY.</p>
<p>Independent Practice: You</p>	<p>All students should have papers, pencils, and their worm container (1 per group).</p> <p>Pass out worms to groups and students who are ready and waiting in LEARN. Put on timer for 10 mins. Cue students to do the light experiment, then the water one, then to write or draw what they see.</p> <p>If students are done early, they may draw a habitat or watch and write how their worm moves around the tub.</p>
<p>Closure</p>	<p>Collect all materials: practice passing back papers, pencils, then tubs to the left of each row, and ask 1 student to put all things away.</p> <p>Ask groups top raise hands and share their conclusions! What did the worm prefer? Why? How did he react to light and to water? Where does he normally live?</p> <ul style="list-style-type: none"> • Fill out Scientific Method Poster for their results. <p>Conclude: Worms like to live where most other animals don't...where it is WET and DARK!! In the soil underneath the earth!! They need water for their skin to stay nice and wet and they need it to be dark so they don't dry out and die. And WE need worms to make our soil. How can we help worms survive? What will you do next time you see a worm on the sidewalk?</p> <p>Safely line up in 45 seconds to leave the garden.</p>