

Grade 3rd	Lesson: Habitat: Small Environment-4	Reference to English Interconnections Lesson Habitat: Small Environments pg. 42
Science Standard(s): Standard 2.2 Interrelationships: Communities and their Environments		
Content Objective(s):	Language Objective(s):	
Students will discuss the effect of changes upon the living organisms and nonliving things in a small-scale environment in a small group. <i>I can tell a small group about the changes that happened to the living and non-living things in my terrarium.</i>	Students will ask and answer questions about the changes in the terrarium. <i>I can ask and answer questions about the changes in our terrarium in a small group.</i>	
Essential Questions: How do living and non-living things adapt as the size of their environment grows?	Academic Vocabulary: Listen: environment, living, nonliving, organism, survive, observe, terrarium, aquarium, temperature, moisture, habitat Speak: Environment, living, non-living thing, survive, Read: Write:	
Materials: <ul style="list-style-type: none"> • Terrariums • Terrarium Observation Sheets • Timer • The word “WHY?” written in large letters on a poster 	Additional Lesson Vocabulary: observe, temperature, moisture, affect, effects, why, because, as a result of, Sentence Frames: “Why did _____?” (the plants die, the plants grow, the animals survive, etc.) “Why do you think _____?” (the water dried out, only 1 plant died etc.) _____ because _____. (The worms survived because there was enough food.) _____ as a result of _____. (The plants turned brown as a result of not enough water.)	
Lesson:	Instructional Time:	
Opening: (5 minutes) <ul style="list-style-type: none"> • Show the word “Why?” written in large letters on the board. <p>T: “Why? Good scientists are always asking why something happens. They do experiments to find out why. They read books to find out why. They talk with each other to discover why. Today we are going to discuss why changes happened in our terrariums.</p> <p>Introduction to New Material (Direct Instruction): (10 minutes) T: “First let’s make a T-Chart of questions we can ask and answers we can give so we’ll know how to say things.”</p> <ul style="list-style-type: none"> • Show a t-chart on the board with the labels “Questions” “Answers” <p>T: “What are some questions that you have about the changes you saw in the terrarium? I have an example. ‘Why did some plants die?’”</p> <ul style="list-style-type: none"> • Write on the left side of the t-chart “Why did some plants die?” <p>T: Now your turn. What are some questions you thought of as you observed the terrariums? S: “Why did some plants grow? Why did the animals die? Why did some plants grow a lot? Why did our terrarium get dry? Etc.”</p> <ul style="list-style-type: none"> • Write their questions on the chart. Prompt them for more questions until you have a sufficient list. <p>T: “Great! You are fabulous scientists who are asking excellent questions. Now let’s see if we can come up with some answers to those questions. I’ll show you with my example. Why did some plants die? Some plants died because they did not get enough water. “</p> <ul style="list-style-type: none"> • Write on the board “because they did not get enough water”. Don’t worry that these are not complete sentences. We will show how to combine the question and the answer to make a complete sentence for the bicycle chain activity. <p>T: “Let’s look at the rest of the questions and try to come with possible answers for them.”</p> <ul style="list-style-type: none"> • Reads the question and calls on students for answers. If there is more than one answer for a question, write them both next to the question. Continue with as many questions and answers as possible. <p>Guided Practice: (minutes)</p>		

T: “Fabulous thinking! I can now ask and answer a question using these pieces. Look, I can ask, ‘Why did some plants die?’. And then I can answer using part of the question, the word ‘because’ and then the answer like this. ‘Some plants died because they did not get enough water.’ Let’s have you try one.”

T: “Turn to your partner. The partner on the left will ask the question here.” (point to the question) “And the partner on the right will answer using part of the question, the word because, and then the answer here. (Point to each part as you say it. If you do not have “because” written on the chart, write it at the top of the chart in between “question” and “answer”.

Like this:

Question	because	Answer
Why did some plants die?		They did not get enough water.

T: “Try it with your partner for the first question and answer.”

S: Student on the left says “Why did some plants die?” Student on the right says “Some plants died because they did not get enough water.”

T: “Super. Let’s switch. The partner on the right will ask the question and the partner on the left will give the complete answer.”

S: Student on the right asks something like “Why did some animals die?” and the student on the left answers “Some animals died because they did not get enough food.”

- Give the student several opportunities to practice asking and answering questions until you feel they understand how to do the task.

Use the modeling cycle:

Teacher Does:

T: “We will now get a chance to ask and answer questions about our terrariums. We will do a bicycle chain to discuss the changes you saw in your terrariums. I’m going to ask a student to come up to model with me how we will do this.”

- Calls up one student

T: “The student on the left side of the bicycle chain will ask the questions. The student on the right will answer the question. They can use the answer here or create their own answer using these sentence frames.” Use the modeling cycle:

(show the sentence frames _____ because _____ ; and _____ as a result of _____)

- The teacher pretends to be a student and asks one of the questions. The student gives an answer.
- Clarify any misconceptions.

Two Students Do:

T: “Now we’ll bring up two students to show us what we’ll do in the bicycle chain. Watch to see if they are correct. Student on the left asks the question, student on the right gives a complete answer.”

- Watch as the two students model asking and answering a question. If the students answering does not use a complete sentence, stop and have them answer again using the complete sentence frame. Point to the text on the chart to help out if necessary.

Independent Practice: (5-10 minutes)

Student Do:

T: “Let’s give everyone a chance to practice. Take your Terrarium Observation Sheet with you and get in a bicycle chain.”

S: Students form a bicycle chain.

T: “The students on the left will ask one of these questions or one of your own. Students on the right will answer with a complete sentence. Do not move to a new student until I give you a signal.” (Tell them what your signal is such as a chime, bell, or clap.)

T: “Now begin.”

S: Students ask and answer questions.

- Circulate listening to some of the students.
- Give signal to switch. Students continue asking and answering questions until time is up.
- If the task is too easy, challenge students to make up their own questions to ask and answer.

Closing: (2 minutes)

- Gather students together on the rug.

T: "What questions were the hardest to answer?"

S: students respond

T: "What really good question did you like that someone else came up with?"

S: students respond

T: "What changes did we see the most often in our terrariums?"

S: students respond

T: "Why do you think that happened?"

S: "because they were in the sun." "Because they didn't get enough water." Etc.

T: "So we learned today that changes in the environment affect living things, but not non-living things."

Assessment:

Use the habitat presentation research page to assess the students understanding and predictions.

Extra Ideas: