

## Lesson Plan Model<sup>1</sup>

Lesson Title/#: Scratch: Food energy/matter movement

Grade Level: 5

### Learning Central Focus

<p><b>Central Focus</b></p> <p>What is the central focus for the content in the learning segment?</p>	<p>The central focus for the content is the movement of food energy and matter among living things and the environment</p>
<p><b>Content Standard</b></p> <p>What standard(s) are most relevant to the learning goals?</p>	<p>5-PS3-1: "Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun." –Arkansas Science Standards</p> <p>5-LS2-1: "Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment." –Arkansas Science Standards</p>
<p><b>Student Learning Goal(s)/ Objective(s)</b></p> <p><b>Skills/procedures</b></p> <p>What are the specific learning goal(s) for student in this lesson?</p> <p><b>Concepts and reasoning/problem solving/thinking/strategies<sup>2</sup></b></p> <p>What are the specific learning goal(s) for students in this lesson?</p>	<p>Students will make their own diagram, such as a food web, containing how food energy and matter is moved throughout the environment and through other organisms. The learning goals for this lesson is for the students to get a good understand how energy and matter move around through different species and that non-foods, such as air &amp; water, is changed by plants into matter. They should also understand that food energy starts from the sun and moves throughout the food chain.</p>
<p><b>Prior Academic Knowledge and Conceptions</b></p> <p>What knowledge, skills, and concepts must students already know to be successful with this lesson?</p> <p>What prior knowledge and/or gaps in knowledge do <b>these</b> students have that are necessary</p>	<p>Prior knowledge that the students should know is what kind of things certain species eat or take in for their energy. They should also know a little bit of how photosynthesis works and how the sun produces energy for food. Yesterday, they read in their textbook the chapter over food energy and matter and their movements throughout the environment.</p>

<sup>1</sup> The lesson plan template is intended to be used as a **formative** process prior to a candidate's submission of edTPA materials. The template offers an opportunity for candidates to practice documenting their thinking when planning lessons leading up to the learning segment they will teach for edTPA. Lesson plans with this level of detail are not necessary and should not be submitted as part of edTPA. It is intended to prepare candidates to articulate their thinking and justification for plans when responding to the Planning Task commentary prompts

<sup>2</sup> The prompt provided here should be modified to reflect subject specific aspects of learning. Language here is mathematics related. See candidate edTPA handbooks for the "Making Good Choices" resource for subject specific components.

<p>to support the learning of the skills and concepts for this lesson?</p>	
<p><b>Common Errors, Developmental Approximations, Misconceptions, Partial Understandings, or Misunderstandings</b></p> <p>What are common errors or misunderstandings of students related to the central focus of this lesson?</p> <p>How will you address them for <b>this group</b> of students?</p>	

### Instructional Strategies and Learning Tasks

*Description of what the teacher (you) will be doing and/or what the students will be doing.*

<p><b>Launch</b> _____ Minutes</p> <p>How will you start the lesson to engage and motivate students in learning?</p>	<p>The day before this lesson, the class would read in their textbook how food energy and matter move throughout different paths and food. To start this lesson, I will give students several examples of food webs and show them the different pathways food energy can go. We will also review what they read in their chapter yesterday.</p> <p>Time: 5 Minutes</p>
<p><b>Instruction</b> _____ Minutes</p> <p>What will you do to engage students in developing understanding of the lesson objective(s)?</p> <p>How will you link the new content (skills and concepts) to students' prior academic learning and their</p>	<p>The students will use their previous knowledge and the knowledge they just learned and make a food web, or chain. They will connect what each animal eats and which animals eat them. They will learn how energy moves from the sun to other organisms. While they are working on their webs, I will be walking around to make sure they are connecting the right things up. They will be presenting their web to the class when everyone is finished up so each student should have different animals and plants. Questions I will ask to make sure they are understanding the lesson is: "Where does the sun's energy go to?" or "If (some animal) eats a (animal/plant) for food, what does a (animal) eat?" The questions I'll ask my students would be to help them understand how each animal and/or plant connected for energy. I will determine if students are meeting the intended objective by letting them describe to me first before what their web represents, energy movement wise, before they present it to the class. If I feel like they need more help, I would have them research more on their animals or plants.</p> <p>Time: 20 minutes</p>

<p>personal/cultural and community assets?</p> <p>What will you say and do? What questions will you ask?</p> <p>How will you engage students to help them understand the concepts?</p> <p>What will students do?</p> <p>How will you determine if students are meeting the intended learning objectives?</p>	
<p><b>Structured Practice and Application</b> _____ Minutes</p> <p>How will you give students the opportunity to practice so you can provide feedback?</p> <p>How will students apply what they have learned?</p> <p>How will you determine if students are meeting the intended learning objectives?</p>	<p>Just like I said above, I will show students examples of the different types of food webs, or chains, so they can get a good idea of what theirs is supposed to look like. The students will research different pictures of different animals or plants and use them on their web. I will be walking around, asking students about their web, such as why this animal connect to this one. I will determine if students are meeting the intended objective by letting them describe to me first before what their web represents, energy movement wise, before they present it to the class. If I feel like they need more help, I would have them research more on their animals or plants.</p> <p>Time: 20 minutes</p>

<p>Closure _____ Minutes</p> <p>How will you end the lesson?</p>	<p>I will end the lesson by first counting down how much they have left to work, starting at 5 minutes. After the 5 minutes are up, I'll tell them to save their work and that if they need to I'll give them a few minutes the next day to work on it. The next day, the students will present their webs, unless some of them want to go ahead and present theirs today.</p> <p>Time: 5 minutes</p>
<p>Differentiation/ Planned Support</p> <p>How will you provide students access to learning based on individual and group needs?</p> <p>How will you support students with gaps in the prior knowledge that is necessary to be successful in this lesson?</p>	<p><i>Whole Class:</i></p> <p><i>Groups of students with similar needs:</i></p> <p><i>Individual students:</i></p> <p><i>Students with IEP's or 504 plans:</i></p> <p><i>Strategies for responding to common errors and misunderstandings, developmental approximations, misconceptions, partial understandings, and/or misunderstandings:</i></p>
<p>Student Interactions</p> <p>How will you structure opportunities for students to work with partners or in groups? What criteria will you use when forming groups?</p>	<p>The students will only be working on this individually, but I will allow them to ask for help from other students to make sure they're doing it right. I will also let them get help from other students for idea, but to come up with their own stuff different from other students. If not, that would be cheating!</p>

<p><b>What Ifs</b></p> <p>What might not go as planned and how can you be ready to make adjustment?</p>	<p>Some things that might not go as planned is some kids may get confused, which I would help them understand; Some kid's computer might not be working, therefore I'd would just either move them to another one or have them do one from scratch; some kids might not fully understand the content in general, I would have them possibly re-read some of the texts in the book or may be do some research on it, have them learn it the way they learn things.</p>
<p><b>Theoretical Principles and/or Research-Based Best Practices</b></p> <p>Why are the learning tasks for this lesson appropriate for your students?</p>	
<p><b>Materials</b></p> <p>What materials does the teacher need for <b>this lesson</b>?</p> <p>What materials do the students need for <b>this lesson</b>?</p>	<p>The materials the teacher needs are: computer; Google, Yahoo, Bing, etc., to look up examples of webs; the board or smartboard, to show the images up for the students.</p> <p>Materials the students will need: computer; Inspiration; websites such as Google, Bing, Yahoo, etc., for pictures;</p>

**Academic Language Demand(s):**

<p>What language function do you want students to develop in this lesson? What must students understand in order to be intellectually engaged in the lesson?</p>	
<p>What content specific terms (vocabulary) do students need to support learning of the learning objective for this lesson</p>	

<p>What specific way(s) will students need to use language (reading, writing, listening and/or speaking) to participate in learning tasks and demonstrate their learning for this lesson?</p>	
<p>What are your students' abilities with regard to the oral and written language associated with this lesson?</p>	
<p>How will you <b>support</b> students so they can understand and use the language associated with the language function and other demands in meeting the learning objectives of the lesson?</p>	

**Assessments:**

*Describe the tools/procedures that will be used in **this lesson** to monitor students' learning of the lesson objective(s). Attach a copy of the assessment and the evaluation criteria/rubric in the resources section at the end of the lesson plan.*

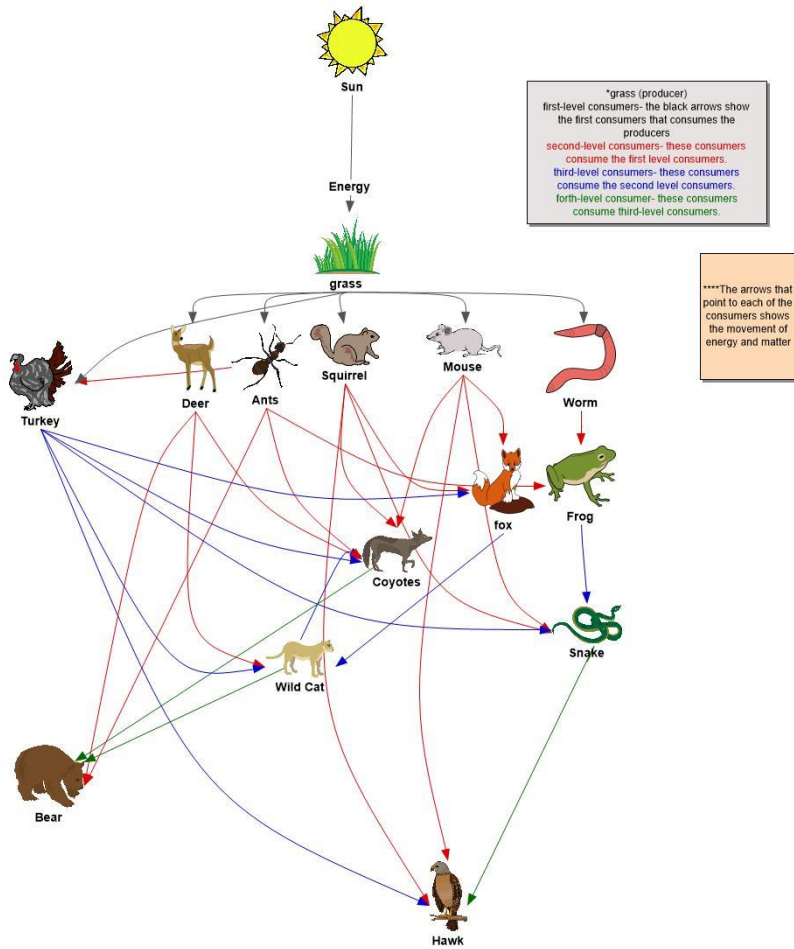
<p>Type of assessment (Informal or Formal)</p>	<p>Description of assessment</p>	<p>Modifications to the assessment so that all students could demonstrate their learning.</p>	<p>Evaluation Criteria - What evidence of student learning (related to the learning objectives and central focus) does the assessment provide?</p>

**Analyzing Teaching**

To be completed after the lesson has been taught

<p>What worked? What didn't? For whom?</p>	
<p>Adjustments</p> <p>What instructional changes do you need to make as you prepare for the lesson tomorrow?</p>	
<p>Proposed Changes.</p> <p>If you could teach this lesson again to this group of students what changes would you make to your <b>instruction</b>?</p>	<p><i>Whole class:</i></p> <p><i>Groups of students:</i></p> <p><i>Individual students:</i></p>
<p>Justification</p> <p>Why will these changes improve student learning?</p> <p>What research/theory supports these changes?</p>	

**Resources:**



Attach each assessment and associated evaluation criteria/rubric.