Planning for Instruction

Student Learning Goals/Outcomes:
  o Students will model the flow of energy through organisms in an ecosystem.
  o Students will identify key details from a text

Chunks/Targets:
Identifying main characteristics from reading passage
Making connections between producers, consumers, and decomposers
Model the flow of energy

Materials/Resources:
• Construction paper (11x17 and 8x11) in multiple colors
• Food chain cards
• String
• PowerPoint
• Student white boards
• Student iPads

Learning Activity:

Day One

Prior knowledge/connections:
Students meet in their ecosystem’s groups. Begin a discussion about producers and where they get their energy. What about consumers?

  • Select one student in each group to read the food chain reading passage to their group. As a group, students will find the key details in the passage and write them on a white board.
  • As a whole group discuss the key details
    o Looking for specific detail such as animals get energy from plants. Other animals get energy from eating animals etc.
  • Display the two images of a food chain and discuss with the class:
    o What begins all of these food chains? producers
    o Where did these producers get the energy they need? sun
    o How many consumers are in the first chain? 3
    o How many consumers are in the second chain? 4
    o What do the arrows in the food chain represent? energy
    o Why do you think they use arrows and not just dashes? so you see what direction the energy goes
    o Does the energy in the ecosystem stop with the hawk? no
    o What type of organism would get the energy from the hawk after it died? a decomposer
Show the third food chain which includes the sun and fungi as a decomposer.

- Briefly discuss how do the sun and decomposers add to the food chain?
- Next, students will build food chains.
  - Each group will get an envelope with organism cards, yarn, and arrows. Each group will use the animal cards and arrows to create 2 food chains that contain at least three organisms.
  - Students will plan out their two food chains, once they have it planned out with their arrows to show the flow of energy, they can connect their cards with the string to make a hanging food chain.
- As a wrap up have all of the groups come to the carpet area to examine the hanging food chains. What are the similarities/differences?

**Day Two**

- Begin the lesson by displaying multiple stylized images (pp slide 2). Ask the students to make observations about the different images. What do they have in common?
- Display the definition of stylized (pp slide 3). Use slide 4 to show the transition from realistic to stylized art and discuss the differences.
- Using slides 4-9 play the stylized or realistic game.
- Next show the slide of the food stylized food chain inspiration images (pp slide 10). Explain to students that they will be researching food chains within their assigned ecosystem and create a stylized food chain.
- Give each student a copy of the Food Chain organizer.
- Students will meet with their ecosystem groups to research and select at least 3 consumers and 1 producer from their ecosystem and draw a stylized image of the animal’s head.
  - Students may use their iPads and classroom materials to complete research.
  - Encourage students to use real images of the animals to create their stylized sketches.
  - Draw student’s attention to the shapes in the animals faces.

**Day 3**

- Share with students how you can fold a large piece of paper and then cut it out to create a symmetrical shape for their animal mouths.
- Have students use their previous sketches to create a plan for their stylized collage.
  - Have students sketch their 3 consumers and 1 producer mouth inside of mouth
  - Have them label the colors they will need and sizes of paper
- Once student sketches are approved, they can gather their construction paper and begin to build their food chains.
  - Students will start by cutting out eat consumer and their producer
  - Next, they will glue them onto their background starting with the producer (smallest) first and ending with their apex consumer (largest)
Using images of your animals for reference make a stylized sketch of each animal’s head and face region. You DO NOT need to sketch the entire animal. Remember what stylized means...the less a work of art resembles something from the real world the more stylized it is.

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<thead>
<tr>
<th>Producer</th>
<th>Apex Predator</th>
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<th>Primary Consumer</th>
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<table>
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<th>Secondary Consumer</th>
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<tr>
<td>hawk</td>
<td>grass</td>
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<td>mountain lion</td>
<td>field mouse</td>
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<td>seeds</td>
<td>deer</td>
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<td>raccoon</td>
<td>algae</td>
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<td>Snake</td>
<td>fish</td>
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<td>mushroom</td>
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<td>Grizzly Bear</td>
<td>worm</td>
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<tr>
<td>blueberries</td>
<td>squirrel</td>
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<tr>
<td>salmon</td>
<td>bacteria</td>
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