Our Students CAN Assess Themselves!

Session Presenter Bill Ferriter

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**Unit: Ecosystems**

Over the next three weeks, we’ll be studying the ecosystems of the world. Specifically, we’ll be exploring how species live and interact with each other, the factors that explain how ecosystems change over time, and how species adapt to their environments.

**Essential Questions:**

- [ ] How do plants survive and reproduce?
- [ ] What are photosynthesis and cellular respiration?
- [ ] How does energy flow through an ecosystem?
- [ ] How do the non-living and living things in an ecosystem interact?
- [ ] How do biotic/abiotic factors influence habitats?

**Learning Target**

(1). *I can explain how flowering plants survive and reproduce.*

This means I can correctly label the petals, sepals, stamens, anthers, and pistils on an illustration of a flower and detail the role that they play in the survival and reproduction of flowers.

This also means that I can explain how plants use dormancy and tropism to help them to survive and thrive.

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<th>Rate Your Level of Understanding:</th>
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**Grades Earned:**

(2). *I can explain the role that photosynthesis and cellular respiration play in the survival of green plants.*

This means I can create a table that details the characteristics of both photosynthesis and cellular respiration.

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**Grades Earned:**
(3). *I can explain how energy flows through an ecosystem.*

This means I can create an energy pyramid for a habitat that includes producers, primary consumers, secondary consumers and decomposers.

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Grades Earned:

(4). *I can discuss the different ways that matter cycles through the environment.*

This means that I can explain the similarities and differences between the carbon, water and nitrogen cycle.

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Grades Earned:
(5). I can describe the role that biotic and abiotic factors play in the development of a habitat.

This means I can choose a biome and explain how factors like temperature, soil conditions, amount of sunlight, diversity of food sources, and existence of predators have impacted the development of the habitat.

Rate Your Level of Understanding:

1 2 3 4 5

Grades Earned:

Vocabulary to Master:

- Petals
- Sepals
- Stamens
- Anther
- Pistil
- Photosynthesis
- Cellular Respiration
- Cuticle
- Stomata
- Glucose (Sugars)
- Producers
- Consumers
- Decomposers
- Food Chain
- Food Web
- Biome
- Freshwater
- Marine
- Desert
- Tundra
- Energy Pyramid
- Transpiration
- Parasitism
- Mutualism
- Commensalism
- Biotic
- Abiotic
- Limiting Factors
Unit: Ecosystems
Over the next three weeks, we'll be studying the ecosystems of the world. Specifically, we'll be exploring how species live and interact with each other, the factors that explain how ecosystems change over time, and how species adapt to their environments.

Essential Questions:
- How do plants survive and reproduce?
- How do the non-living and living things in an ecosystem interact?
- What are photosynthesis and cellular respiration?
- How do biotic/abiotic factors influence habitats?
- How does energy flow through an ecosystem?

Learning Target

1. I can explain how flowering plants survive and reproduce.

This means I can correctly label the petals, sepals, stamens, anthers, and pistils on an illustration of a flower and detail the role that they play in the survival and reproduction of flowers.

This also means that I can explain how plants use dormancy and tropism to help them to survive and thrive.

Rate Your Level of Understanding:

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---|---|---|---|---|

Grades Earned:

- 100% viewing guide
- 100% viewing guide
- 100% test grade
- 100% test grade

(2). I can explain the role that photosynthesis and cellular respiration play in the survival of green plants.

This means I can create a table that details the characteristics of both photosynthesis and cellular respiration.

Rate Your Level of Understanding:

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---|---|---|---|---|

Grades Earned:

- 100% test grade
- 100% test grade

Photosynthesis: The process by which green plants and other producers convert sunlight and carbon dioxide into simple sugars called glucose. They release oxygen as a byproduct.

Cellular respiration: The process by which green plants convert glucose to energy that can be used for growth. Results in the release of carbon dioxide.

Photosynthesis and cellular respiration are pretty much opposites.
(3). I can explain how energy flows through an ecosystem.

This means I can create an energy pyramid for a habitat that includes producers, primary consumers, secondary consumers and decomposers.

Rate Your Level of Understanding:

| 1 | 2 | 3 | 4 | 5 |

Grades Earned:

| 100 | 100 |

(4). I can discuss the different ways that matter cycles through the environment.

This means that I can explain the similarities and differences between the carbon, water and hydrogen cycle.

Rate Your Level of Understanding:

| 1 | 2 | 3 | 4 | 5 |

Grades Earned:

| 100 | 100 | 100 |

Water cycle: precipitation → water falling from the sky → evaporation → water turns to water vapor → because of heat → transpiration → water is released from plants → condensation: water vapor cools, forms a cloud → carbon cycle: series of processes by which carbon compounds are converted in the environment involving the incorporation of carbon into living things by photosynthesis and its return to the atmosphere through dead organisms and fossil fuel burning → nitrogen cycle: process by which nitrogen is converted between its various chemical forms similar: all cycles of things in the environment different: different processes for different things being cycled, go through different stages.
(5). I can describe the role that biotic and abiotic factors play in the development of a habitat.

This means I can choose a biome and explain how factors like temperature, soil conditions, amount of sunlight, diversity of food sources, and existence of predators have impacted the development of the habitat.

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</tr>
<tr>
<td>Dormancy ✓</td>
</tr>
<tr>
<td>Biome ✓</td>
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<td>Energy Pyramid ✓</td>
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**My Not Yet/You Bet List**

In the table below, sort the content/skills that you have been working with during this cycle of instruction into two categories: A **NOT YET** list of content/skills that you are still working to learn and a **YOU BET** list of content and skills that you have already mastered.

<table>
<thead>
<tr>
<th>NOT YET LIST</th>
<th>YOU BET LIST</th>
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<tr>
<td>Content/skills that I am still working to master.</td>
<td>Content/skills that I have already mastered.</td>
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**Reflection Questions to Consider:**

1. Rank the items on your **NOT YET** list in order from “the most important to master” to “the least important to master.” Defend your rankings.

2. Which items on your **NOT YET** list are you the closest to mastering? What steps could you take today to move you even closer to mastering those items?

3. List some of the strategies that you used to master the items on your **YOU BET** list. Do you see any patterns in the strategies that typically help you to master new pieces of content/skills? Can you apply any of those strategies to mastering the items in your **NOT YET** list?
## Where Am I Going Reflections

Over the past few weeks, we have been working our way through a new unit. Use this Where Am I Going reflection sheet to track your progress.

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<tr>
<th>Where Am I Going?</th>
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<th>Where to Next?</th>
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<tbody>
<tr>
<td>What essential content and skills do I need to master during this unit? What key questions have I been wrestling with?</td>
<td>What evidence can I collect to track my progress towards mastering essential content and skills?</td>
<td>What steps do I need to take in order to continue my learning?</td>
</tr>
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**Scores on Tests, Quizzes and Homework Assignments:**

**Moments where you “got” a concept during a class discussion or activity:**

### Reflection Questions to Answer with a Side Partner:

- What do you already know about the content/skills that we are studying?
- What wonder questions do you have about the content/skills that we are studying? What are you curious about? Why?
- What patterns do you see in the evidence that you have collected about your learning?
- Are the grades that you have earned an accurate reflection of what you have mastered during this unit? Why/Why Not?
- Which concepts and skills are you convinced that you have mastered? How can you prove that you have mastered those concepts and skills?
- Which concepts and skills are you still struggling to master? How can you prove that you haven’t mastered those concepts and skills yet?
- How would you rate your overall mastery of the essential content/skills in this unit? Why?
- Which strategy for continuing your learning do you like the best? Would working with a peer tutor help? Are there questions that you need to ask during class? Are there extension activities that you can complete?
- Who can help you to take a next step in your learning? Why is that person the right person to help you take the next step?
Where Am I Going Reflection – Matter Unit

Over the past few weeks, we have been working our way through a new unit. Use this Where Am I Going reflection sheet to track your progress.

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- Can I name the measurable properties of matter?
- Can I accurately measure the mass, volume and density of a solid and a liquid?
- Can I explain how the structure of solids, liquids and gasses are similar to and/or different from one another?
- Can I detail the effect that heat has on different states of matter?

- Score on Matter unit vocabulary test: ____
- Score on States of Matter research project: ____
- Score on Ice Cube to Water Illustration: ____
- Other evidence of your learning (questions answered in class, contributions to group projects, comparisons with the thoughts of partners):

- Review classroom Zaption tutorials on the following topics: ________________________________.
- Meet with a peer tutor during intervention period.
- Ask the following question during class: ____________________________________________.
- Review content on the following handout: ____________________________________________.
- Complete the following extension activity: ____________________________________________.

Reflection Questions to Answer with a Side Partner:

- What do you already know about the content/skills that we are studying?
- What wonder questions do you have about the content/skills that we are studying? What are you curious about? Why?

- What patterns do you see in the evidence that you have been collecting about your learning?

- Are the grades that you have earned an accurate reflection of what you have mastered during this unit? Why/Why Not?

- Which concepts and skills are you convinced that you have mastered? How can you prove that you have mastered those concepts and skills?

- Which concepts and skills are you still struggling to master? How can you prove that you haven’t mastered those concepts and skills yet?

- How would you rate your overall mastery of the essential content/skills in this unit? Why?

- Which strategy for continuing your learning do you like the best? Why?

- How do you know that strategy is helping you as a learner? Do you have examples or evidence from previous units that it works?

- Who can help you to take a next step in your learning? Why is that person the right person to help you take the next step?
**Where Am I Going Reflections**

Over the past few weeks, we have been working our way through a new unit. Use this Where Am I Going reflection sheet to track your progress.

<table>
<thead>
<tr>
<th>What are You Supposed to Learn?</th>
<th>What Have You Already Learned?</th>
<th>What are You Still Working to Learn?</th>
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**Proof Partners:** When you show your parents, your teachers or your peers that you have learned something, have them initial the chart below.

<table>
<thead>
<tr>
<th>Content or Skill:</th>
<th>Proof Partner Name:</th>
<th>Date:</th>
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