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| **Day 1**  **Lesson: Intro to Ecology**  **Essential Question:** How are different parts of the environment connected? | **Day 2**  **Lesson: Intro to Ecology** | **Day 3**  **Lesson: Intro to Ecology** | **Day 4**  **Lesson: Intro to Ecology** | **Day 5**  **Lesson: Intro to Ecology** |
| **Clarifying Objective:**  **8. L.3.1:** Explain how factors such as food, water, shelter and space affect populations in an ecosystem.  **Academic Vocabulary:**  Ecology, population, ecosystem, niche, biotic factor, abiotic factor, species, community, habitat | **Clarifying Objective:**  **8. L.3.1:** Explain how factors such as food, water, shelter and space affect populations in an ecosystem.  **Academic Vocabulary:**  Ecology, population, ecosystem, niche, biotic factor, abiotic factor, species, community, habitat | **Clarifying Objective:**  **8. L.3.1:** Explain how factors such as food, water, shelter and space affect populations in an ecosystem.  **Academic Vocabulary:**  Ecology, population, ecosystem, niche, biotic factor, abiotic factor, species, community, habitat | **Clarifying Objective:**  **8. L.3.1:** Explain how factors such as food, water, shelter and space affect populations in an ecosystem.  **Academic Vocabulary:**  Ecology, population, ecosystem, niche, biotic factor, abiotic factor, species, community, habitat | **Clarifying Objective:**  **8. L.3.1:** Explain how factors such as food, water, shelter and space affect populations in an ecosystem.  **Academic Vocabulary:**  Ecology, population, ecosystem, niche, biotic factor, abiotic factor, species, community, habitat |
| **Bell Ringer:**  What are the basic needs shared by almost all living things? Where do living things get all of the things they need to survive? (answers page 12)  **Instructional Tasks:  Use Science Fusion (Module D- Unit 1 Lesson 1- Ecology and the Environment)**  **Pg. 12-25**  **Student pages- 4-15**  **Options:**  **-Read Lesson 1 pg. 4-14**  **-Text Walk with skeletal notes**  **-Digital Lesson with skeletal notes**  **Summarizer:**  **Compare and contrast the terms biotic and abiotic factors.**  **\*\*\*\*Take it Home- Home and Work found in student resources\*\*\*\*** | **Bell Ringer:**  Recognizing Relationships: Think Pair Share  TE pg. 14  **Instructional Tasks:**  **-Continue/finish day 1 lesson**  **-Vocabulary activity on Intro to Ecology**  **Magnet Word**  **Card Sort- Found in teacher resources- vocabulary strategies.**  **Word Splash- Found in teacher resources- vocabulary strategies.**  **(use any strategy you like: ex- Frayer model, word triangle, foldable) Science Fusion**  **(use any strategy you like: ex- Frayer model, word triangle)**  **Summarizer:**  **Why might an organism’s habitat change at different stages of its life? Give an example to support your answer.** | **Bell Ringer:**  Vocabulary Matching: picture, definition and term!  **Instructional Tasks:**  **Options:**  **-Students can take a “book walk” through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.**  **-Activity- Living or Nonliving? Pg 14**  **-Discussion- Hermit Crabs pg 14**  **Summarizer:**  **3-2-1 on Virtual Lab**  **-3 things you liked, 2 new ideas you learned, 1 question you have.** | **Bell Ringer:**  Formative Assessment questions pg 19  **Instructional Tasks:**  **1 day Options-**  **~Activity- Recognizing Relationship pg 14**  **~Activity- Making an Organization Model pg 14**  **-Daily Demo- Identifying Biotic and Abiotic Factors pg 15**  **Quick Lab- Which Abiotic and Biotic Factors are Found in an Ecosystem? Pg 15**  **-Quick Lab- Which Biome? Pg 15**  **2 or more day Options-**  **-Field Lab- What’s in an Ecosystem? Pg 15**  **-Virtual Lab- Classifying Biomes pg 15**  **Or choose an option from the previous three days that has not been completed.**  **Summarizer:**  **none** | **Bell Ringer:**  Visual Summary pg.25 TE Answer questions #19-22  **Instructional Tasks:**  **Instructional Tasks:**  **One Day Options-**  **-Lesson Review pg 15 Module D- Intro to Ecology Student Edition**  **~Complete the previous activity from the previous day.**  **Option 2- Two day activities-**  **Alternative Assessment- Ecology and Ecosystems pg 19**  **Summarizer:**  **What new information about ecosystems and/or invasive species did you learn from completing this project?** |
| **Assessment:** Observation | **Assessment:** Observation | **Assessment:** Graded Assignment | **Assessment:** Observation and Participation | **Assessment:** Project Product |
| **Day 6**  **Lesson: Intro to Ecology** | **Day 7**  **Lesson: Roles in Energy Transfer**  **Essential Question:** How does energy flow through an ecosystem? | **Day 8**  **Lesson**: **Roles in Energy Transfer** | **Day 9**  **Lesson: Roles in Energy Transfer** | **Day 10**  **Lesson: Roles in Energy Transfer** |
| **Clarifying Objective:**  **8. L.3.1:** Explain how factors such as food, water, shelter and space affect populations in an ecosystem.  **Academic Vocabulary:**  Ecology, population, ecosystem, niche, biotic factor, abiotic factor, species, community, habitat | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web** |
| **Bell Ringer:**  Reteach- Pg 19 Module D  This is the opportunity to reteach a concept the students did not grasp. If not, move to instructional task.  **Instructional Tasks:**  **Options:**  **-Quiz/ Test**  **-Project Wild- Habitat Rummy pg 14. This activity helps understand the interdependence of shelter, water, and food.**  **`Project Wild- My Kingdom for a Shelter pg 28.**  **-Project Wild- Habitat Lap Sit pg 61**  **-WTL-**[**Science 6 6.1 How are organisms on Earth connected?**](http://pearsonkt.com/cgi-bin/writeToLearn/teacher/displayText.cgi?textID=1318&classID=9685)  **-WTL- Science 4 10-2 How are resources used for energy?**  **-WTL- Science 4 4.1 How do ecosystems balance?**  **All of these options, except for the quiz, will take up to two days to complete.**  **Summarizer:**  **The summarizer will depend on the choice of activity. If a Project Wild activity is chosen, the book has optional summarizers for each activity.** | **Bell Ringer:**  How do plants and animals differ in the ways they interact with biotic and abiotic factors to meet the basic need of food? (Plants rely on abiotic factors for their food because plants make their food through photosynthesis, which requires sunlight, carbon dioxide, and water. Animals rely on biotic factors such as predation and other feeding relationships between living organisms for their food.)  **Instructional Tasks:**  **(Module D- Roles in Energy Transfer- Unit 2 Lesson 2 Ecology and the Environment)**  **Pg. 28-41 Teacher pages**  **Pg 18-29 student pages**  **Options:**  **-Read Lesson 1 pg. 18-29**  **-Text Walk with skeletal notes**  **-Digital Lesson with skeletal notes**  **Summarizer:**  **The summarizer will depend on the choice of activity. If a Project Wild activity is chosen, the book has optional summarizers for each activity.** | **Bell Ringer:**  Write down as many abiotic and biotic factors you can think of in our environment.  **Instructional Tasks:**  **Use Science Fusion -Continue/finish day 1 lesson**  **-Vocabulary activity on Intro to Ecology**  **Magnet Word**  **Card Sort- Found in teacher resources- vocabulary strategies.**  **Word Splash- Found in teacher resources- vocabulary strategies.**  **(use any strategy you like: ex- Frayer model, word triangle, foldable) Science Fusion**  **(use any strategy you like: ex- Frayer model, word triangle)**  **Summarizer:**  **Students will use a triple Venn diagram to compare and contrast consumer, producer, and decomposer.**  **\*\*Take it home Homework sheet- What’s for Dinner? can be found under student resources.** | **Bell Ringer:**  How does the environment determine where an organism can survive? Explain your answer. (an organism lives there because it can survive under the temperature and precipitation in that environment)  **Instructional Tasks:**  **-Students can take a “book walk” through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.**  **-Discussion- No Stomach, No Problem pg 30**  **-Activity- Chain, Chain, Chain pg 30**  **Summarizer:**  **First Word: Ecosystems. Students will fill in the acrostic to tell what they know about ecosystems.**  **Review Take it home homework.** | **Bell Ringer:**  How do organisms get the energy they need for growth and other activities? (through respiration, organisms break down food to release energy)  **Instructional Tasks:  1 day Options-**  **~Activity- Energy Pathways pg 30**  **~Discussion- Meet the Producer 30**  **-Daily Demo- Let it Rot! Pg 31**  **Quick Lab- Energy Role Game pg 31**  **-Quick Lab- Making Copost pg 31**  **2 or more day Options-**  **-Field Lab- Food Webs pg 31**  **Summarizer:**  **Think-Pair- Share the answers to their book walk.**  **Move and Shake it line- students will face each other in a conga line. Students will face each other. The person they are facing will be the person they share their first answer with. They will receive 1 minute to discuss their answers and any differences they may have had with each other’s answers. Once the minute is up, a student from one side of the line can conga down the middle until they reach the end of the line. Now students will share the answer to the next question with the person they are facing. \*Make sure only one side of the line dances through the middle or the students will keep lining up on front of the same person.** |
| **Assessment:** Observation/ WTL | **Assessment:**  Observation, WTL | **Assessment:**  Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation |
| **Day 11**  **Lesson: Roles in Energy Transfer** | **Day 12**  **Lesson: Population Dynamics**  **Essential Question:** What determines a population’s size? | **Day 13**  **Lesson: Population Dynamics** | **Day 14**  **Lesson: Population Dynamics** | **Day 15**  **Lesson: Population Dynamics** |
| **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Carrying capacity, limiting factor, immigration, competition, emigration, cooperation** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Carrying capacity, limiting factor, immigration, competition, emigration, cooperation** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Carrying capacity, limiting factor, immigration, competition, emigration, cooperation** | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  **Carrying capacity, limiting factor, immigration, competition, emigration, cooperation** |
| **Bell Ringer:**  What is the relationship between food chains and food webs? (food chains show the transfer of energy from one organism to the other. Food webs show the transfer of energy through an overlapping food chain.  **Instructional Tasks:**  **1 day Options-**  **-Lesson Review pg 41 Module D**  **-Quiz/ Test**  **-Project Wild-Career Critters pg 371**  **Bill Nye Video- Food Webs found on youtube**  **Two day options-**  **-Project Wild- Move Over Rover pg 144**  **-Formative Assestment- Energy Transfer pg 35**  **Holiday Option for Thanksgiving- Project Wild- Let’s Talk Turkey pg 248**  **Summarizer:**  **The summarizer will depend on the choice of activity. If a Project Wild activity is chosen, the book has optional summarizers for each activity.** | **Bell Ringer:**  Probing questions- The Local Population pg 44. These three questions will be great for an activation activity.  **Instructional Tasks:**  **Use Science Fusion (Module D- Unit 1 Lesson 3- Ecology and the Environment)**  **Pg. 42-55 teacher pages**  **Student Pages- 30-40**  **Options:**  **-Read Lesson 3- Population Dynamics pg. 30-40 (students edition)**  **-Powerpoint with skeletal notes**  **-Digital Lesson with skeletal notes**  **Summarizer:**  **3-2-1 on Virtual Lab**  **-3 things you liked, 2 new ideas you learned, 1 question you have.**  \*\*\*Take it Home- Plants and Animals \*\*\* | **Bell Ringer:**  Explain how the carrying capacity can change when the environment changes.  **Instructional Tasks:**  **-Continue/finish day 1 lesson**  **-Vocabulary activity on Population Dynamics**  **Magnet Word- pg 47**  **Card Sort- Found in teacher resources- vocabulary strategies.**  **Word Splash- Found in teacher resources- vocabulary strategies.**  **(use any strategy you like: ex- Frayer model, word triangle, foldable) Science Fusion**  **Summarizer:**  **Card Sort and Word Splash can be used as summarizer.** | **Bell Ringer:**  What factors can increase or decrease the size of a population? (Births, deaths, immigration, emigration, food availability, temperature, predation, disease, natural disasters, and weather conditions.)  **Instructional Tasks:**  **Options:**  **-Students can take a “book walk” through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.**  **-Discussion- Biotic or Abiotic? Pg 44**  **-Activity- Interaction Poster pg 44**  **Summarizer:**  **What is the difference between immigration and emigration?** | **Bell Ringer:**  Formative Assessment questions pg 49  **Instructional Tasks:**  **1 day Options-**  **~Activity- Population review pg 48**  **Quick Lab- What Factors Influence a Population Change? Pg 45**  **-Quick Lab- Investigationg and Abiotic Limiting Factor pg 45**  **2 or more day Options-**  **Exploration Lab- How Do Populations Interact? Pg 45. Worksheet that accompanies this lesson can be found on Lesson Inquiry Resources Unit 1 Lesson 3.**  **Or choose an option from the previous three days that has not been completed.**  **Summarizer:**  **Think-Pair- Share the answers to their exploration lab.**  **Move and Shake it line- students will face each other in a conga line. Students will face each other. The person they are facing will be the person they share their first answer with. They will receive 1 minute to discuss their answers and any differences they may have had with each other’s answers. Once the minute is up, a student from one side of the line can conga down the middle until they reach the end of the line. Now students will share the answer to the next question with the person they are facing. \*Make sure only one side of the line dances through the middle or the students will keep lining up on front of the same person.** |
| **Assessment:** Observation/ Lesson Review/ summarizer | **Assessment:**  Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation | **Assessment:** Exploration Lab |

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| **Day 16**  **Lesson: Population Dynamics**  **Essential Question: How do organisms interact?** | **Day 17**  **Lesson: Interactions in Communities** | **Day 18**  **Lesson: Interactions in Communities** | **Day 19**  **Lesson: Interactions in Communities** | **Day 20**  **Lesson: Interactions in Communities** |
| **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   **Academic Vocabulary:**  Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   **Academic Vocabulary:**  Predator, prey, mutualism, competition, parasitism, symbiosis, commensalism | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   **Academic Vocabulary:**  Predator, prey, mutualism, competition, parasitism, symbiosis, commensalism | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   **Academic Vocabulary:**  Predator, prey, mutualism, competition, parasitism, symbiosis, commensalism | **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   **Academic Vocabulary:**  Predator, prey, mutualism, competition, parasitism, symbiosis, commensalism |
| **Bell Ringer:**  Students should partner with someone and discuss how the immigration of new herbivores might affect the carrying capacity of our local deer population.  **Instructional Tasks:**  **One Day Options-**  **-Lesson Review pg 41 Module D- Student Edition**  **-Traditional Quiz/ Test**  **-Project Wild- How Many Bears Can Live in This Forest? Pg 23**  **-Project Wild-Oh Deer! Pg36**  **Two day options-**  **-Project Wild- Carrying Capacity pg 46**  **-Alternative Assessment- Population Ups and Downs pg 49 Module D Teacher’s Edition**  **Summarizer:**  **The summarizer will depend on the choice of activity. If a Project Wild activity is chosen, the book has optional summarizers for each activity.** | **Bell Ringer:**  What are some ways that different animals interact with each other? (fight with each other, eat each other, mate, hunt together)  **Instructional Tasks:**  **Use Science Fusion (Module D- Ecology and the Environment)**  **Pg. 58-68**  **Options:**  **-Read Lesson 4- Interactions in Communities pg. 42-50 (students edition)**  **-Powerpoint with skeletal notes**  **-Digital Lesson with skeletal notes**  **Summarizer:**  **3-2-1 on powerpoint notes or digital lesson**  **-3 things you liked, 2 new ideas you learned, 1 question you have.** | **Bell Ringer:**  Quick Lab- Identifying Predator and Prey pg 59 teacher edition. Worksheet can be found online Under lesson inquiry support Module D Unit 1 Lesson 4. This will take some prep time the night before.  **Instructional Tasks:**  **-Continue/finish day 1 lesson**  **-Vocabulary activity on Population Dynamics**  **Magnet Word**  **Card Sort- Found in teacher resources- vocabulary strategies.**  **Word Splash- Found in teacher resources- vocabulary strategies.**  **(use any strategy you like: ex- Frayer model, word triangle, foldable) Science Fusion**  **Summarizer:**  **Card Sort and Word Splash can be used as summarizer.**  **\*\*Take it home Homework sheet can be found under student resources.** | **Bell Ringer:**  Activity- What Are You Fighting For? Pg 58 Module D Start with the think-pair- share activity, give students three minutes to down as many examples as they can of competition in nature. Then continuw with the next part of the activity.  **Instructional Tasks:**  **Options:**  **-Students can take a “book walk” through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.**  **-Digital Lesson with skeletal notes**  **-Virtual Lab with skeletal notes.**  **-Quick Lab- Prey Coloration pg 59 worksheet to accompany the activity can be found in lesson inquiry support.**  **Summarizer:**  **Options-**  **Review Take it home worksheet.**  **How many different types of interactions can you find? (birds are predators to ticks, rhino horns and other characteristics of organisms may be adaptations related to predation; \*\*answers can be found on pg 63 under formative assessment)** | **Bell Ringer:**  Quick Lab- What Factors Influence a Population Change? Pg 45 Science Fusion  **Instructional Tasks:**  **Options-**  **Exploration Lab- Modeling the Predator-Prey Cycle? Pg 58. Worksheet that accompanies this lesson can be found on Lesson Inquiry Resources Unit 1 Lesson 4.**  **Or choose an option from the previous three days that has not been completed.**  **Summarizer:**  **Think-Pair- Share the answers to their exploration lab.** |
| **Assessment:** Observation/ Lesson Review/ summarizer | **Assessment:**  Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation/ take it home worksheet | **Assessment:** Exploration Lab |

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| **Day 21**  **Lesson: Population Dynamics**  **Essential Question:**  How do energy and matter move through ecosystems? | **Day 22**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** | **Day 23**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** | **Day 24**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** | **Day 25**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** |
| **Clarifying Objective:**  **8.L.3.2:** Summarize the relationships among producers, consumers and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition * (predator/prey) * Parasitism * Mutualism   **Academic Vocabulary:**  Producer, consumer, carnivore, omnivore, herbivore, decomposer, food chain, food, web | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy |
| **Bell Ringer:**  What are some predators you can think of that can also be prey? list at least 4.  **Instructional Tasks:**  **One Day Options-**  **-Lesson Review pg 51 Module D- Student Edition**  **-Traditional Quiz/ Test**  **-Project Wild- Quick Frozen Critters pg 122**  **-Project Wild-**  **Two day options-**  **-Project Wild- Good Buddies pg 91**  [**Science 5 5.1 What is an ecosystem?**](http://pearsonkt.com/cgi-bin/writeToLearn/teacher/displayText.cgi?textID=1176&classID=9685)  **-Alternative Assessment- Symbiosis pg 63 Module D Teacher’s Edition**  **Summarizer:**  **The summarizer will depend on the choice of activity. If a Project Wild activity is chosen, the book has optional summarizers for each activity.** | **Bell Ringer:**  Quick Lab Pyramid of energy pg 119 worksheet can be found in lesson inquiry resources.  **Instructional Tasks:**  **Use Science Fusion (Module D- Ecology and the Environment Unit 2 Lesson 3)**  **Pg. 122-129**  **Options:**  **-Read Unit 2 Lesson 3- pg. 88-99 (students edition)**  **-Powerpoint with skeletal notes**  **-Digital Lesson with skeletal notes**  **Summarizer:**  **3-2-1 on powerpoint notes or digital lesson**  **-3 things you liked, 2 new ideas you learned, 1 question you have.** | **Bell Ringer:**  Activity- Carbon in and Out pg 118 Module D  **Instructional Tasks:**  **-Continue/finish day 1 lesson**  **-Vocabulary activity on Energy and Matter in Ecosystems pg 121**  **Magnet Word**  **Card Sort- Found in teacher resources- vocabulary strategies.**  **Word Splash- Found in teacher resources- vocabulary strategies.**  **(use any strategy you like: ex- Frayer model, word triangle, foldable) Science Fusion**  **Summarizer:**  **Card Sort and Word Splash can be used as summarizer.** | **Bell Ringer:**  If energy is conserved, why do ecosystems need sunlight every day as a source of energy? (the amount of energy remains the same, but it changes form and travels. Producers, which utilize light energy form the sun, transforms solar energy into the for of energy the ecosystem needs)  **Instructional Tasks:**  **Options:**  **-Students can take a “book walk” through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.**  **-Digital Lesson with skeletal notes**  **-Virtual Lab with skeletal notes.**  **-Quick Lab- Model the Carbon Cycle pg 119 worksheet to accompany the activity can be found in lesson inquiry support.**  **Summarizer:**  Think-pair-Share will work for all activities listed. | **Bell Ringer:**    **Instructional Tasks:**  **Options-**  **Carbon Cycle/ Nitrogen Cycle and Water Cycle Activity sheet. Can be found in \*th grade resources dropbox.**  **Or choose an option from the previous three days that has not been completed.**  **Summarizer:**  **What would happen to the ecosystem if there were no nitrogen-fixing bacteria?** |
| **Assessment:** Observation/ Lesson Review/ summarizer | **Assessment:**  Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation/ take it home worksheet | **Assessment:** activity worksheets. |

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| **Day 26**  **Lesson: Energy and Matter in Ecosystems Essential Question: How do energy and matter move through ecosystems?** | **Day 27**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** | **Day 28**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** | **Day 29**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** | **Day 30**  **Lesson: Energy and Matter in Ecosystems**  **Unit 2 Lesson 3** |
| **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy | **Clarifying Objective:**  8.L.3.3 Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide, and oxygen).  **Academic Vocabulary:**  Energy, carbon cycle, law of conservation of mass, matter, water cycle, energy pyramid, nitrogen cycle, law of conservation of energy |
| **Bell Ringer:**  If energy and matter cannot be destroyed, what happens to energy and matter when an organism is eaten? (answer found on page 129)  **Instructional Tasks:**  **One Day Options-**  **-Lesson Review pg 99 Module D- Student Edition**  **-Traditional Quiz/ Test**  **Two day options-**  **-Project Wild- Deer Dilemma pg 426**  **Project Wild- Checks and Balances pg 387**  **Project Wild- To Zone or Not to Zone pg 321**  **-Alternative Assessment- Energy and Matter Add Up pg 123 Module D Teacher’s Edition**  **Summarizer:**  **The summarizer will depend on the choice of activity. If a Project Wild activity is chosen, the book has optional summarizers for each activity.** | **Bell Ringer:**  **Instructional Tasks:**  **Finish any activity from yesterday.**  **Teachers can take the next three days to re-teach a concept students did not understand, or pick an instructional task they were unable to get to at the time. This will help solidify student’s knowledge and prepare for benchmarks and/or end of unit test.**  **Summarizer:** | **Bell Ringer:**  **Instructional Tasks:**  **Teachers can take the next three days to re-teach a concept students did not understand, or pick an instructional task they were unable to get to at the time. This will help solidify student’s knowledge and prepare for benchmarks and/or end of unit test.**  **Summarizer:** | **Bell Ringer:**  **Instructional Tasks:**  **Teachers can take the next three days to re-teach a concept students did not understand, or pick an instructional task they were unable to get to at the time. This will help solidify student’s knowledge and prepare for benchmarks and/or end of unit test.**  **Summarizer:** | **Bell Ringer:**  Create two test questions on what we have covered in ecology that can be used as a bonus question. (Students need to create higher order Blooms questions. )  **Instructional Tasks:**  **Summarizer:**  **What part of the test was difficult? How do you think you did on the test? What is something you may have changes?** |
| **Assessment:** Observation/ Lesson Review/ summarizer | **Assessment:**  Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation/ take it home worksheet | **Assessment:** activity worksheets. |