**W5 E Lesson Plan Template**

|  |  |  |
| --- | --- | --- |
| **Teacher:****Kathleen Woodard** |  **Grade: 5th grade** | **Date(s)**: 8 class periods6 for Ecosystems study4 for conservation plan  |
| **Unit Title:**Ecosystems | **Corresponding Unit Task:** |
| **Materials/Resources** | **Essential Vocabulary** |
| **Teacher:**Internet access Chart paper | **Student:**Laptop/DevicePencilColored pencilsGraphic organizer (one for each ecosystem) | Climate, Ecosystem, Producer, Consumer, Decomposer, Energy pyramid, Food Web, Food ChainPollution, Conservation |
| **Learning Experience** |
| Inquiry Based Learning: * Use of the 5 E Lesson format
* Learner–centered instruction
* Use of scientific investigation, problem solving or engineering design
* Hands on–minds on instructional strategies
* Use of Process skills in context- predict, observe, measure, classify, infer, communicate
* Peer Discussion – scientific arguments and explanations
* Use appropriate tools accurately
* Focus on detail - precision & accuracy in observations and measurements
* Use of collaboration for learning
 | **Essential Standards: NCES.5.L.2** - Understand the interdependence of plants and animals with their ecosystem.* [**NCES.5.L.2.1**](http://center.ncsu.edu/standards/NCES/Science/5/L/2/1/) - Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands). **Partial coverage of this standard**
* [**NCES.5.L.2.2**](http://center.ncsu.edu/standards/NCES/Science/5/L/2/2/) - Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
* [**NCES.5.L.2.3**](http://center.ncsu.edu/standards/NCES/Science/5/L/2/3/) - Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
 |
| **I Can Statement(s): I can describe the interdependence of plants and animals within a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ecosystem.****I can identify conservation needs and strategies within a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ ecosystem.** |
| **Engage: Activating Strategy/Hook:** To begin each day, show a short engaging video clip about the ecosystem you will focus on today. Deciduous Forest, Rain Forest, Desert, Tundra, Taiga, or Grassland.Discuss what you saw…What kinds of producers? Consumers? Were you able to see what type of climate a \_\_\_\_\_\_ has?(Discovery education is a great streaming resource if available to you, if not, youtube 😊) |
| **Explore: Learning Experiences:** Students will use devices and their graphic organizers to work in teams of 2-3 to learn about a different ecosystem each day. An excellent online resource is…<https://www.ducksters.com/science/earth_science/>The basic information they will research is:ClimateProducersConsumersDecomposersA Food Chain |
| **Explain: Learning Experiences:** After completing the basic research, students will work to create a food chain that would take place within the ecosystem and place the correct organism under the correct label: Producer 🡪 Primary Consumer 🡪 Secondary Consumer 🡪 Apex Predator 🡪 Decomposer* Discuss with students their different food chains and responses. Focus on the consumers.
* On chart paper list the different primary consumers, secondary consumers, and apex predators.
* What do we notice about the animals in each of these groups? This should lead to a discussion about herbivores (primary), omnivores (most secondary), and carnivores (apex).
 |
| **Elaborate: Extending & Defining:** Groups will work together to choose any producer, consumer, or decomposer to disappear from the ecosystem. What will the effects be? * Through research about each ecosystem and learning about things that are in fact disappearing and effecting ecosystems world wide, students can choose to champion their own energy and conservation efforts.
* After completing research on each type of ecosystem, students can get into groups to become experts on just one of the ecosystems they researched. They will research current threats to the ecosystem and conservation efforts. They will also come up with a plan to “Spread the Word,”
* Possible ideas for spreading the word.

Skit to perform for schoolBook to publish for school libraryVideo to circulate and raise awareness  |
| **Evaluate: Summarizing Strategy:** * Exit ticket each day: Have each student write a “quiz question” about the ecosystem with their answer and submit to the teacher. Questions can be in the form of…

Fill in the blankMultiple ChoiceTrue/False |
| **Assessment(s):**Use the students submitted questions to compile a ten question quiz for each ecosystem researched. Students will also be assessed for their “Spread the Word” project |
| **Teacher Reflection:** (Next steps?) |