

Teacher Name: Wilber

Unit Plan: Understanding by Design

Unit Starting Date: TBD

Course Name: Biology B

Unit: Population Ecology & Human Impact

Planned Number of Days: TBD

Stage 1 – Desired Results

Established Goals

B3.4A

- Describe ecosystem stability. Apply understanding that if a disaster such as flood or fire occurs, the damaged ecosystem is likely to recover in stages of succession that eventually results in a system similar to the original one.

B3.4C

- Examine the negative impact of human activities.

B3.5 C

- Predict the consequences of an invading organism on the survival of other organisms

Meaning

Enduring Understandings

Students will understand that...

- *Humans have a major impact on ecosystems
- *Species that seem unconnected within an ecosystem are still linked through other species
- *Ecosystem stability is important for the species within it.

Essential Questions

Students will keep considering...

- *How are organisms in an ecosystem connected?
- *How can I help protect ecosystems?
- *How do invasive species impact an ecosystem?
- *What happens to an ecosystem after a major event?

Acquisition of Knowledge and Skills

Students will know...

- *How humans impact the environment
- *That a single species can impact an entire ecosystem
- *Ecosystems can come back to the original state following a major event.

Students will be skilled at...

- *Analyzing human impact on the environment
- *Using information such as food webs to predict how a new species may impact the ecosystem

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Stage 2 - Evidence

Code	Assessment/Assignment Evidence
B3.4A	<ul style="list-style-type: none">• Multiple choice section (summative assessment) targeting ecosystem stability and succession.• Students will complete on-paper activity regarding succession in a pond ecosystem• Students will create dioramas to demonstrate visible changes during succession of a field ecosystem.
B3.4C	<ul style="list-style-type: none">• Short essay on summative assessment: Name three negative effects humans have on the environment (name what they do and how it impacts). Do you think humans have any positive impacts on the environment? If so, what?• Students will complete small group activity regarding human activities, the impacts and results of impacts• Students will complete reflection question: What do you do daily that negatively impacts the environment? How could you lesson this impact?
B3.5C	<ul style="list-style-type: none">• Short essay: Story-type question introducing a fictional invasive organism and a food web of its new ecosystem. Students will be asked to predict what native organisms will be impacted and how.• Students will read an article regarding an invasive shrimp species and answer accompanying questions
All	<p>Other evidence:</p> <ul style="list-style-type: none">• Student involvement in class discussions• Student involvement in small group/pair discussions• Student responses to one-on-one instructor prompts/questions• Student responses on exit cards (reflecting the day's topic)• Other formative assessments throughout unit• Instructor observations

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