### **Next Generation Science Standards**

**Lesson: Invasive Species** 

**Activity: Great Lakes Most Unwanted** 

### Prior knowledge should include:

• When the environment changes, some organisms survive and reproduce, some move to new locations, some move into the transformed environment and some die.

# **Performance Expectations:**

- MS-LS2-4 Ecosystems: Interactions, Energy and Dynamics. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
- MS-LS2-2 Ecosystems: Interactions, Energy and Dynamics. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

# **Disciplinary Core Ideas:**

- **LS2.A Interdependent Relationships in Ecosystems:** Predatory interactions may reduce the number of organisms or eliminate whole populations of organisms. Mutually beneficial interactions, in contrast, may become so interdependent that each organism requires the other for survival. Although the species involved in these competitive, predatory and mutually beneficial interactions vary across ecosystems, the patterns of interactions of organisms with their environments, both living and nonliving, are shared.
- LS2.C Ecosystem Dynamics, Functioning and Resilience: Biodiversity describes the variety of species found in Earth's terrestrial and oceanic ecosystems. The completeness or integrity of an ecosystem's biodiversity is often used as a measure of its health.

### **Practices:**

- Engaging in Argument from Evidence (7) Progresses to constructing a convincing argument that supports or refutes claims for either explanations or solutions about the natural and designed world(s).
- Constructing Explanations and Designing Solutions (6) Progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles and theories.

# **Crosscutting Concepts:**

- **Stability and Change**: For natural and built systems alike, conditions of stability and determinants of rates of change or evolution of a system are critical elements of study.
- **Patterns**: Observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them.

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