

**Edmore Public School**  
**706 Main St, Edmore, ND 58330**

**Biology Lesson Plan**

**Dates:**

January 15 - 19, 2023

**Time and Period:**

2:32 - 3:25 PM, Seventh Period

**Performance Standard:**

**HS-LS2-1**

Use mathematical and/or computational models to support explanations of factors that affect carrying capacity of ecosystems at different scales.

**HS-LS2-2**

Use evidence from mathematical representations to explain factors that affect population dynamics and biodiversity.

**HS-LS2-3**

Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

**HS-LS2-4**

Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.

**HS-LS2-6**

Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions but changing conditions may result in a new ecosystem.

**Monday, January 15**

<b>Topic</b>	Food Chains and Food Webs, pp. 400 - 403
<b>Objectives</b>	Describe how energy flows in an ecosystem.
<b>Bell Ringer</b>	Give two examples of species that are generalists and specialists in a food chain.
<b>Procedure / Instructional Delivery</b>	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
<b>Assessment</b>	Food Chains and Food Webs, pp. 400 - 403

Tuesday, January 16	
<b>Topic</b>	Cycling of Matter: Hydrologic, Oxygen, Carbon Cycles, pp. 404 - 410
<b>Objectives</b>	Explain how carbon and oxygen are cycled through an ecosystem.
<b>Bell Ringer</b>	What are the five biogeochemical cycles?
<b>Procedure / Instructional Delivery</b>	Guided Practice, Interactive Discussion, Presentation Task
<b>Assessment</b>	Cycling of Matter, pp. 404 - 410

Wednesday, January 17	
<b>Topic</b>	Cycling of Matter: Nitrogen and Phosphorus Cycles, pp. 404 - 410
<b>Objectives</b>	Explain why it is important that nitrogen and phosphorus be cycled through an ecosystem.
<b>Bell Ringer</b>	How is phosphorus cycled through an ecosystem?
<b>Procedure / Instructional Delivery</b>	Guided Practice, Interactive Discussion, Presentation Task
<b>Assessment</b>	Cycling of Matter, pp. 404 - 410

Thursday, January 18	
<b>Topic</b>	Review Quiz Pyramid Models, pp. 411 - 413
<b>Objectives</b>	Explain why only 10% of energy is transferred from one trophic level to the next
<b>Bell Ringer</b>	Define <i>biomass</i> .
<b>Procedure / Instructional Delivery</b>	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
<b>Assessment</b>	Review Quiz Pyramid Models, pp. 411 - 413

Friday, January 19	
<b>Topic</b>	Quiz Habitat and Niche, pp. 420 and 421

<b>Objectives</b>	Compare niche and habitat in a given ecosystem.
<b>Bell Ringer</b>	Define ecological niche and describe a lion's ecological niche.
<b>Procedure / Instructional Delivery</b>	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
<b>Assessment</b>	Quiz Habitat and Niche, pp. 420 and 421