

Background

We have learned that every living thing is part of a complex web of relationships that we call an ecosystem. Ecosystems often appear unchanging - an untouched forest or pond may look much the same now as it did 40 or 50 years ago. But underneath that surface stability, though, great changes are taking place as matter cycles and energy flows through the system. From tundra to desert, from mixed forest to grassland, Canada supports a wide range of biomes, both terrestrial and aquatic. Many factors, both abiotic and biotic, affect which species live where. Today, more so than ever, Canadians are struggling with initiatives to maintain those ecosystems and to produce sustainable harvests.

Tasks

(a) Create a food web using fictional characters. The layout/design is up to you but it must include the following:

- ❖ a minimum of:
 - 10 characters (of which at least 2 are producers and 1 is an omnivore)
 - 4 trophic levels
 - 9 food chains
- ❖ an appropriate/descriptive title
- ❖ the names of each character
- ❖ drawings/photos of each character
- ❖ arrows pointing from prey to predator
- ❖ a colour-coded legend (producer, herbivore, omnivore, carnivore)
- ❖ a summary (# of producers, consumers, herbivores, carnivores, omnivores, and food chains)

(b) Create a short story (~ 300 words) that describes/explains your food web. You must use at least 14 of the terms listed below. Make sure that you use/explain the term correctly.

- | | |
|------------------------|------------------|
| • abiotic | • autotroph |
| • bioamplification | • biodiversity |
| • biotic | • carnivore |
| • cellular respiration | • consumer |
| • decomposer | • habitat |
| • herbivore | • heterotroph |
| • niche | • omnivore |
| • pest | • photosynthesis |
| • predator | • prey |
| • producer | • scavenger |
| • sustainability | • trophic level |

NOTE!

Hi-lite the words so they are easy to find.

Limitations

Markers, glue sticks, and coloured paper will be available for you to use. However, if you require other craft materials such as a glue gun, paint, ... make sure you bring them with you to class because you will not be allowed to wander the school looking for these resources from other teachers/friends/...

FOOD WEB POSTER & STORY																								
Student:																								
F O O D W E B P O S T E R	INSTRUCTIONS (minimums) <input type="checkbox"/> 10 Characters <input type="checkbox"/> 2 producers <input type="checkbox"/> 4 trophic levels <input type="checkbox"/> 1 omnivore <input type="checkbox"/> 9 food chains	/5																						
	COMPONENTS (÷2) <input type="checkbox"/> Student Name on Poster <input type="checkbox"/> Marking Scheme Attached <input type="checkbox"/> Descriptive Title <input type="checkbox"/> Names <input type="checkbox"/> Drawings/Photos <input type="checkbox"/> Arrows (correct direction) X2 <input type="checkbox"/> Colour-Coded Legend (& correct) <table border="0" style="margin-left: 20px;"> <tr> <td><input type="checkbox"/> producer</td> <td><input type="checkbox"/> omnivore</td> </tr> <tr> <td><input type="checkbox"/> herbivores</td> <td><input type="checkbox"/> carnivores</td> </tr> </table>	<input type="checkbox"/> producer	<input type="checkbox"/> omnivore	<input type="checkbox"/> herbivores	<input type="checkbox"/> carnivores	/6																		
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PRESENTATION • Colourful & Creative 0 + 1 + 2 + 3 • Neat & Organized 0 + 1 + 2 + 3	/6																							
S T O R Y	TERMINOLOGY (minimum of 14 terms used correctly) <table border="0" style="width: 100%;"> <tr> <td><input type="checkbox"/> abiotic</td> <td><input type="checkbox"/> autotroph</td> </tr> <tr> <td><input type="checkbox"/> bioamplification</td> <td><input type="checkbox"/> biodiversity</td> </tr> <tr> <td><input type="checkbox"/> biotic</td> <td><input type="checkbox"/> carnivore</td> </tr> <tr> <td><input type="checkbox"/> cellular respiration</td> <td><input type="checkbox"/> consumer</td> </tr> <tr> <td><input type="checkbox"/> decomposer</td> <td><input type="checkbox"/> habitat</td> </tr> <tr> <td><input type="checkbox"/> herbivore</td> <td><input type="checkbox"/> heterotroph</td> </tr> <tr> <td><input type="checkbox"/> niche</td> <td><input type="checkbox"/> omnivore</td> </tr> <tr> <td><input type="checkbox"/> pest</td> <td><input type="checkbox"/> photosynthesis</td> </tr> <tr> <td><input type="checkbox"/> predator</td> <td><input type="checkbox"/> prey</td> </tr> <tr> <td><input type="checkbox"/> producer</td> <td><input type="checkbox"/> scavenger</td> </tr> <tr> <td><input type="checkbox"/> sustainability</td> <td><input type="checkbox"/> trophic level</td> </tr> </table>	<input type="checkbox"/> abiotic	<input type="checkbox"/> autotroph	<input type="checkbox"/> bioamplification	<input type="checkbox"/> biodiversity	<input type="checkbox"/> biotic	<input type="checkbox"/> carnivore	<input type="checkbox"/> cellular respiration	<input type="checkbox"/> consumer	<input type="checkbox"/> decomposer	<input type="checkbox"/> habitat	<input type="checkbox"/> herbivore	<input type="checkbox"/> heterotroph	<input type="checkbox"/> niche	<input type="checkbox"/> omnivore	<input type="checkbox"/> pest	<input type="checkbox"/> photosynthesis	<input type="checkbox"/> predator	<input type="checkbox"/> prey	<input type="checkbox"/> producer	<input type="checkbox"/> scavenger	<input type="checkbox"/> sustainability	<input type="checkbox"/> trophic level	/14
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STORY • Terms hilited? 0 2 • Quality/Creativity 0 + 1 + 2 + 3 • Grammar & Spelling 0 + 1 + 2 + 3	/8																							
✓ = correct/present/good ✗ = wrong/absent/poor 0 = poor/not done 1 = good 2 = very good 3 = excellent																								
TOTAL		/45																						