Food Web Challenge

Name _____

Warm Up

Student Worksheet (1 of 2)

As you view the provided presentation answer the following questions.

30-second brainstorm…What do all plants need to survive?

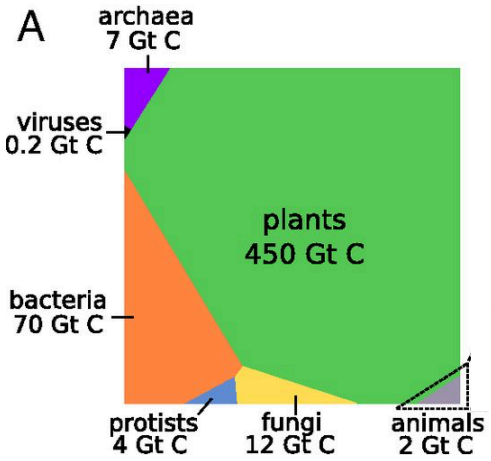
30-second brainstorm…What do all animals need to survive?

Record ONE observation you have about the Northwest Montana ecosystem.

What is the most abundant type of organism that you see in this ecosystem? _____

Examine the diagram below, which group of organisms has the MOST biomass worldwide? _____

Global Partitioning of Biomass



1 gigaton (Gt) = 1,000,000,000,000,000 grams or 10^{15} grams **1 gram =** Bar-On et al. (2018), PNAS

Why do you think that is? Provide one <u>specific</u> reason.

 Name _____

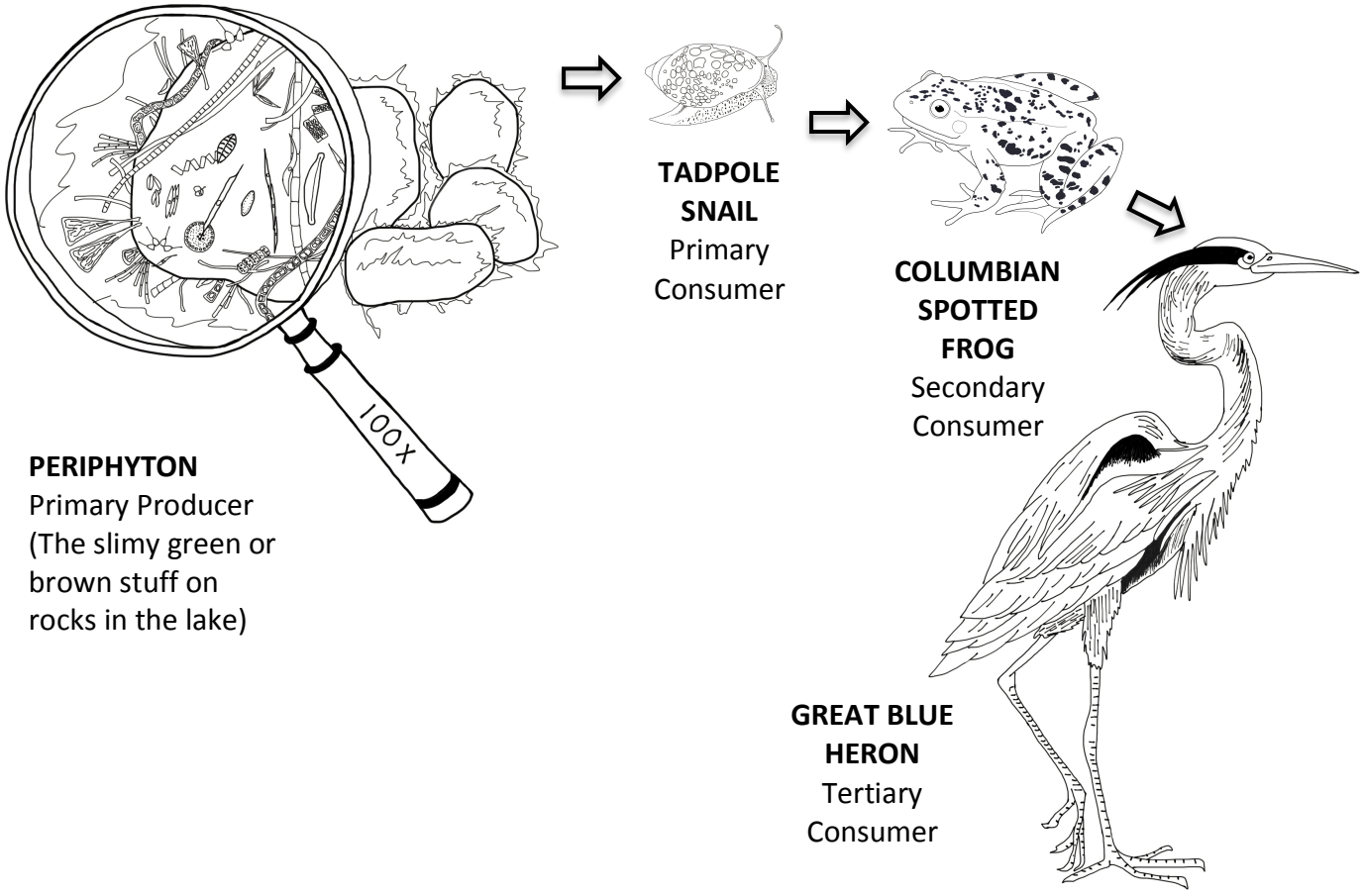
Understanding a Food Chain

Student Worksheet (2 of 2)

A **food chain diagram** represents the food energy that flows through an **ecosystem**. The sun provides energy for the **producers** (plants and algae) to make their own food through photosynthesis. The producers are the base of the food chain and are eaten by many organisms. The producers are called **primary producers** because they make the initial sugar that the entire food web depends upon.

A **consumer** is an organism that cannot make its own food. **Herbivores** are **primary consumers** that eat plants. **Omnivores** are both primary consumers that eat plants and secondary consumers that eat animals. **Carnivores** are typically secondary, tertiary, or quaternary consumers that only eat other animals.

Below is a diagram of a food chain often found in the lakes, rivers, streams, and wetlands in Montana. Notice the arrows are pointed to the animal populations that are consuming the food.



PERIPHYTON
Primary Producer
(The slimy green or brown stuff on rocks in the lake)

Brainstorm and write ONE more food chain below. Remember, all food chains start with a producer and usually have at least THREE types of organisms.

_____

30-second brainstorm…List all of the ways the food chain above could be negatively impacted or disrupted?