BIOBLITZ: TREES

Grades 6-8 at Hyatt Lake

Name: [   ]   Date: [   ]

Write down the directions from questions 1 and 2 in a notebook. Bring your notebook and a pencil with you outside. Then, find a tree! Use all of your 5 senses to observe the tree.

1. **ZOOM OUT**: Draw the entire tree. Add words to describe your observations.

2. **ZOOM IN**: Next, pick a specific part of the tree (cone, leaf, bark, fruit, etc.) to draw. You can trace if you would like. Add words to describe details you cannot draw.

3. Did you find **different** types of trees in your backyard or neighborhood? Circle YES or NO
   The variety of trees you found is one form of biodiversity!

4. Why is biodiversity important to living beings? Why is biodiversity important to **you**?
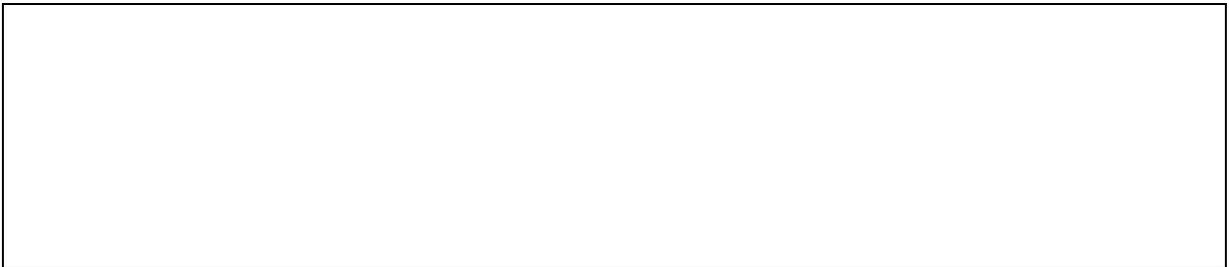
5. For our lesson we are going to do a BioBlitz! A BioBlitz is a short, intensive study of the biodiversity of an area. The importance of conducting a BioBlitz is for scientists to reference BioBlitz data to monitor the health and biodiversity of a place.

- Today we are going to be focused on **trees**. A tree has a *woody stem and when mature, grows at least 15 ft tall.*
- Think back to the tree you drew. What did the leaves look like?
- There are 2 types of trees:

	Conifer	Broadleaf
Description	Tree that produces seeds in a cone, and has needles or scale-like leaves	Tree without needles/scales or cones. The leaves are usually wider, with veins. They produce seeds inside of fruits. They are often deciduous, meaning they drop their leaves in the fall
Example of whole tree		
Examples of leaves/ needles	Conifer scales Conifer needles	Oak leaves Maple leaves
Examples of cones/fruits	Conifer cones come in diverse shapes and sizes	Fruits on broadleaf trees can be edible like an acorn or apple, or not, like a maple samara seed (right).

6. There are multiple tools to use in order to identify the species of trees you find.

   a. First, we recommend using a **dichotomous key**. It is a tool used for identifying an organism based on its characteristics. The dichotomous key guides a user through a series of choices of particular traits, which allows for the identification of the organism.

   Check out the Green Springs 6-8 BioBlitz lesson videos to learn how to use a dichotomous key: https://virtualfallinthefield.org/bioblitz/

   > **Here is a dichotomous key we recommend:**
   > **https://oregonstate.edu/trees/dichotomous_key.html**

   b. Second, there are free apps such as **iNatualist** where you can take a picture of the tree, and experts help you identify it.

   If your BioBlitz is in southern Oregon, you can post your data onto our Fall in the Field iNaturalist project page at: https://www.inaturalist.org/projects/fall-in-the-field-2020-bioblitz

5. Copy the table below into your notebook and bring it outside. Use the dichotomous key to identify the tree name (species). Write the tree name down in in the left column, then count the number of individuals of that species that you can see around you. Record that number in tally marks in the right column.

Tree Name	# of individuals (tally marks)
Example: Ponderosa Pine	ⅢⅢ ⅢⅠ

6. With <u>Google Sheets</u>, <u>Microsoft Excel</u>, or on a piece of paper, **create a bar graph** to show the 5 most common species of trees you found. Write the 5 species names on the x-axis and the number of trees you saw on the y-axis. Don't forget your graph title, and (X and Y) axis titles! Example graph below:
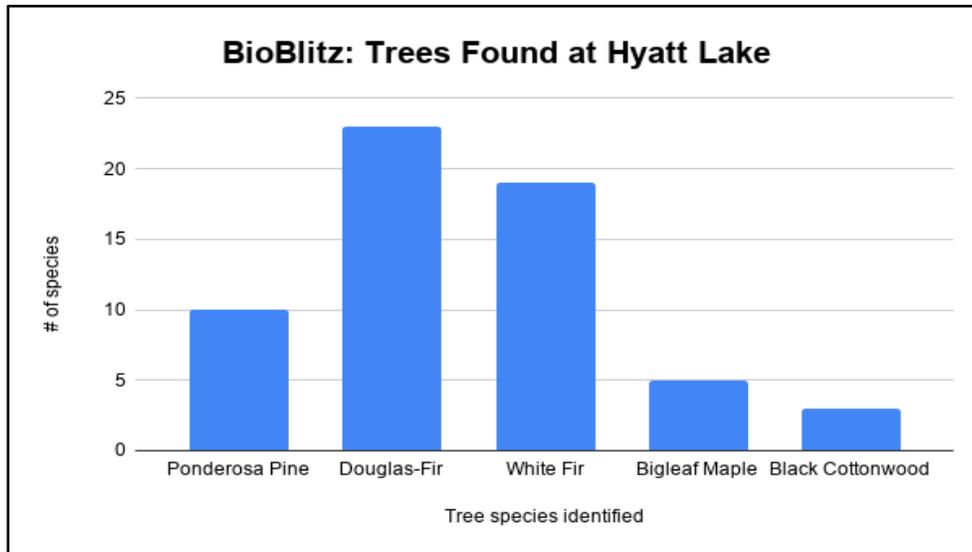
7. What **resources** are abundant where you did your BioBlitz? How do you think this affected the types / number of trees you found? Remember resources are things that an organism needs to survive.

"This BioBlitz taught us that the more closely we look around us, the more biodiversity we can see!"

Thanks for exploring with us today!