Name: .

# Lab 7: Vascular Plant Virtual/Home Lab

**Purpose:**

The purpose of the lab is to familiarize yourself with some plant identification and practice making observation and taking field/ notes.

**Objectives:**

**Students should be able to**

1. Identify gymnosperms, dicots and monocots in/near your home

**Part A: Gymnosperms:**

**Find THREE examples of Gymnosperms**

1. Take a picture of each example
2. Describe the plant
3. **Explain how you know it is a gymnosperm**
4. Explain why you chose that plant/pic

Criteria for pictures:

* The pictures must be taken by you! Therefore, you must include something in your pictures that will let me know that these are NOT google images and have been in fact taken by you!
* The pictures must be recent. I do not want to see pictures from your camping trip in 2015 or a hike you did in 2019. The plant should be the focus of the picture

**Part A: Gymnosperms:**

*Criteria and tips foreach picture/plant:*

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** | * + - * Are they fan-shaped – this could be a Ginkgo Tree.       * Do they have needles?         + How many needles in a bunch?         + Are the needles short or long?       * Would you describe the leaves as “scale-like” – this could be a juniper or a cedar |
| **Bark** | * + - * Describe the colour of the bark         + Sounds silly, but some can be more orange/ brown, red/brown or even silver/white in colour   Would you describe the bark as smooth, scaly, or stringy strips? |
| **Cone** | * + - * Are the cones small or big?       * Are the cones found in clusters or singles?   Add any other distinct features of the cones that you can see (for example, Douglas Fir cones have “tails” sticking out” |
| **Size** | * + - * Is the plant > 2m or < 2m         + If you can give approx. size of the individual plant – great!       * How wide (diameter) is the tree “trunk” around 4.5 feet (1.4m)         + Diameter taken at this height is referred to as DBH (Diameter at Breast Height)   Is the DBH > 30cm or <30cm (30 cm is an average ruler) |
| **Habitat** | * + - * + Where did you find the plant?   An urban/suburbs? Your Backyard? By a River? |

1. Summarize how you know this plant is a gymnosperm

“I know this plant is a gymnosperm because….”

1. If you can, determine the common name of the plant in the picture. *If it is one in the Kamloops region and you are not sure what it is, you can ask for help 😊*
   * Use the internet to include the Latin name of the plant in your picture (that is, if you know the common name) – **Include Reference**
   * Include an interesting fact or something you learned about this plant
2. Explain why you chose this plant/ picture

* I love plants, nature and being outside. There are a lot of plants that evoke a pleasant memory or an interesting fact that I learned about them in the past

**Part A: Gymnosperms – Example 1 Pictures (Plant 1)**

**Part A: Gymnosperms – Example 1 Description (Plant 1)**

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** |  |
| **Bark** |  |
| **Cone** |  |
| **Size** |  |
| **Habitat** |  |

**I know this plant is a gymnosperm because**

**What is the common name and Scientific name of plant 1 in this example 1?**

**Explain why you chose this plant/ picture**

**References:**

**Part A: Gymnosperms – Example 2 Pictures (Plant 2)**

**Part A: Gymnosperms – Example 2 Description (Plant 2)**

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** |  |
| **Bark** |  |
| **Cone** |  |
| **Size** |  |
| **Habitat** |  |

**I know this plant is a gymnosperm because**

**What is the common name and Scientific name of plant 1 in this example 1?**

**Explain why you chose this plant/ picture**

**References:**

**Part A: Gymnosperms – Example 3 Pictures (Plant 3)**

**Part A: Gymnosperms – Example 3 Description (Plant 3)**

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** |  |
| **Bark** |  |
| **Cone** |  |
| **Size** |  |
| **Habitat** |  |

**I know this plant is a gymnosperm because**

**What is the common name and Scientific name of plant 1 in this example 1?**

**Explain why you chose this plant/ picture**

**References:**

**Part 4 B: Angiosperms:**

**Find THREE examples of Angiosperms (monocots and dicots)**

1. Take a picture of each example
2. Describe the plant
3. Try to determine whether your example is a **monocot or dicot** (this will be challenging for the outdoor plants since a lot of them have lost their leaves -so do your best!)
4. Explain why you chose that plant/pic

If you want to get all your pictures outside, you may choose to use a seedless plant, or a non-vascular plant as one or two of your examples

Criteria for pictures:

* The pictures must be taken by you! Therefore, you must include something in your pictures that will let me know that these are NOT google images and have been in fact taken by you!

The pictures must be recent. I do not want to see pictures from your camping trip in 2015 or a hike you did in 2019. The plant should be the focus of the picture

*Criteria and tips foreach picture/plant:*

Recall from lectures that angiosperms are incredibly diverse. Use the following table as a guide for helping you describe the plants you choose for this section of the lab.

1.

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** | * + - * Do the leaves have parallel veins or net-like veins       * A description for house plant leaves that could be used is “variegated” which means the leaf exhibits different colours |
| **Flower (if you can see it)** | * Do the flowers have petals in multiples of three? * Do the flowers have petals in multiples of four or five? |
| **Fruits (if you can see them)** | * Fruits contain the seedless of the plant   + Often fruits can be described as “berries”     - Do your best to describe the fruits.     - Make sure your description matches what you saw and is in the picture (not all will be “berries”) |
| **Bark (if applicable)** | * + - * Describe the colour of the bark         + The bark of angiosperms is quite diverse |
| **Stems (if applicable)** | * + - * Some house plant may have distinct stems       * Many shrubs will have distinct stems |
| **Size** | * + - * Is the plant > 2m or < 2m (this will be for trees and shrubs)         + If you can give approx. size of the individual plant – great!       * How wide (diameter) is the tree “trunk” around 4.5 feet (1.4m)         + Diameter taken at this height is referred to as DBH (Diameter at Breast Height)         + Is the DBH > 30cm or <30cm (30 cm is an average ruler)       * If you are using a house plant, you should measure it (use a ruler…) the ruler (or something for scale) should be included in the pic (is it > 30cm or <30cm) |
| **Habitat** | * + - * + Where did you find the plant?   An urban/suburbs?  Your backyard?  By a river?  In your house?  At the grocery store? |

1. Summarize how you know this plant is an angiosperm

“I think this plant is a \*monocot or dicot\* based on…”

1. If you can, determine the common name of the plant in the picture. *If it is one in the Kamloops region and you are not sure what it is, you can ask for help 😊*
   * Use the internet to include the Latin name of the plant in your picture (that is, if you know the common name) – **Include Reference**
   * Include an interesting fact or something you learned about this plant
2. Explain why you chose this plant/ picture

* I love plants, nature and being outside. There are a lot of plants that evoke a pleasant memory or an interesting fact that I learned about them in the past

If you choose to use examples of seedless plants or non-vascular plants and are having a hard time with your description, please contact me 😊

**Part B: Angiosperms – Example 1 Picture (Plant 4)**

**Part B: Angiosperms – Example 1 Description (Plant 4)**

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** |  |
| **Flower (if you can see it)** |  |
| **Fruits (if you can see them)** |  |
| **Bark (if applicable)** |  |
| **Stems (if applicable)** |  |
| **Size** |  |
| **Habitat** |  |

**Summarize how you know plant 4 is a monocot or dicot**

**If you can, determine the common name of the plant in the picture. *If it is one in the Kamloops region and you are not sure what it is, you can ask for help*** 😊

**Explain why you chose this plant/ picture**

**References:**

**Part B: Angiosperms – Example 2 Picture (Plant 5)**

**Part B: Angiosperms – Example 2 Description (Plant 5)**

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** |  |
| **Flower (if you can see it)** |  |
| **Fruits (if you can see them)** |  |
| **Bark (if applicable)** |  |
| **Stems (if applicable)** |  |
| **Size** |  |
| **Habitat** |  |

**Summarize how you know plant 5 is a monocot or dicot**

**If you can, determine the common name of the plant in the picture. *If it is one in the Kamloops region and you are not sure what it is, you can ask for help*** 😊

**Explain why you chose this plant/ picture**

**References:**

**Part B: Angiosperms – Example 3 Picture (Plant 6)**

**Part B: Angiosperms – Example 3 Description (Plant 6)**

|  |  |
| --- | --- |
|  | **Description** |
| **Leaves** |  |
| **Flower (if you can see it)** |  |
| **Fruits (if you can see them)** |  |
| **Bark (if applicable)** |  |
| **Stems (if applicable)** |  |
| **Size** |  |
| **Habitat** |  |

**Summarize how you know plant 6 is a monocot or dicot**

**If you can, determine the common name of the plant in the picture. *If it is one in the Kamloops region and you are not sure what it is, you can ask for help*** 😊

**Explain why you chose this plant/ picture**

**References:**