Unit 4 Name:

Date:

4-3: Trees and Forests Choiceboard

**Instructions**

1. Your task is to complete the choice board below. Choose and complete three items in one row. For example, Row 1, Row 2, or Row 3.

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| **Trees and Forests Choice Board** | | | |
| **Row 1** | |  |  |  | | --- | --- | --- | | **Experiment**  Samantha cut a tree cookie from a birch tree that had fallen down on her acreage.  Use the image below to identify a  year with favourable growth  conditions and a year with poor  growth conditions. |  |  | |  |  |  | |  |  |  | | **Know**  Leaves can be categorized into the following:   * Type * Shape * Margin * Arrangement   Provide an example of trees with leaves in each category.  Use the words *petiole,* *sessile,* *smooth (or entire)*, *serrated*, *crenate* (or *scalloped), linear, cordate, ovate, simple,* and *compound.* | **Evaluate**  A local government has decided to convert a nature preserve into a leisure centre with a skating rink, swimming pool, and skate park.  Identify three possible opinions community members would have. Choose one you agree with and explain your opinion. |
| **Row 2** | **Experiment**  John added a few drops of non-natural food colouring to water in a glass.  He left a stalk of celery in the water in front of his window.  After three days, he cut the celery stalk. He could see the colours of the food colouring in the stem.  Identify what process this experiment shows.  What is his controlled variable in this experiment?  What is the responding or dependent variable in his experiment? | **Know**  Identify the role decomposers play in the plant’s nutrient cycle. Identify how plants are producers.  Identify two consumers of plant products. | **Evaluate**  In your opinion, where is the balance point between harvesting trees to provide goods for society and maintaining forests to ensure a healthy environment? How could you find this? |
| **Row 3** | **Experiment**  Samantha wants to know if a leaf will die without sunlight. She cuts and tapes two squares of construction paper to a living leaf. The leaf is still attached to a tree, but no light reaches it. She keeps the paper in place for three days and then takes the construction paper off.  What is her controlled variable in this experiment?  What is the responding or dependent variable in her experiment?  If she were to return one week after the experiment to the leaf (with no construction paper on it) what do you predict the leaf would look like? | **Know**  What functions do the trunk, roots, and leaves of a tree have?  Identify and describe four branching growth patterns of trees. | **Evaluate**  If you were given a piece of land that contained a healthy forest, explain what you could do to make the best use of it so that it would benefit the largest number of plants, animals, and people. As part of your explanation,   * identify 3 human activities that positively affect forests. * identify 3 human activities that negatively affect forests. |

**Choice Board Rubric**

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| Choice Board Rubric |

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| --- | --- | --- | --- | --- | --- |
| Criteria | Excellent  5 | | Proficient  4 | Satisfactory  3 | Limited  2 |
| **Content /5** | * I developed *insightful* and *detailed* understanding and explanations of the Unit’s concepts and facts.   + Identify role and value of trees and issues of forest use   + distinguish trees from other plants or types of trees   + describe the relationship between plants and other living things   + interpret growth patterns   + describe and classify leaves   + use the scientific method * I used *precise* details. | | * I developed *logical* and *thoughtful* understanding and explanations of the Unit’s concepts and facts.   + Identify role and value of trees and issues of forest use   + distinguish trees from other plants or types of trees   + describe the relationship between plants and other living things   + interpret growth patterns   + describe and classify leaves   + use the scientific method * I used *logical* details. | * I developed *appropriate* and *basic* understanding and explanations of the Unit’s concepts and facts.   + Identify role and value of trees and issues of forest use   + distinguish trees from other plants or types of trees   + describe the relationship between plants and other living things   + interpret growth patterns   + describe and classify leaves   + use the scientific method * I used *general* details. | * I developed *underdeveloped* and *vague* understanding and explanations of the Unit’s concepts and facts.   + Identify role and value of trees and issues of forest use   + distinguish trees from other plants or types of trees   + describe the relationship between plants and other living things   + interpret growth patterns   + describe and classify leaves   + use the scientific method * I used *vague* details. |
| **Presentation /5** | * I communicated *effectively* and *accurately*. | | * I communicated *thoughtfully* with *few* errors. | * I communicated *clearly* with *some* errors. | * I communicated *ineffectively* with *many* errors*.* |
| **Insufficient** | Your attempt to respond is *insufficient*. **Contact your teacher** to discuss suggestions for improvement. | | | | |
| **Total: /10** | | | | | |
| **Assessment** | | **Areas of Strength:** | | | |
| **Target for Improvement:** | | | |

Total: /10 marks

Save Your File

Name your file in this format: 4-3\_(jsmith)sc6-choiceboard and save your file to your Trees and Forests Notebook folder. Submit to the appropriate Submission folder when completed.