FORESTRY

Practice Questions

Recommended Grades: 6-12

Suggested Time: 45 minutes

Forestry Envirothon NB Learning Objectives

Curriculum Outcomes

Concepts & Content

- Forests
- Biodiversity
- Measurements
- Identification
- Indigenous ways of knowing

UN Sustainable Development Goals

13 CLIMATE ACTION

15 LIFE ON LAND

https://sdgs.un.org/goals

Science and Global Competencies

- Critical Thinking & Problem Solving
- Self Awareness & Self Management
- Communications
- Collaboration
- Sustainability & Global Citizenship
- Innovation & Creativity

Mi'kmaw Vocabulary

- Wjipenu'k   **E**AST
- Senusatek   **S**OUTH
- Wetkatesnu'k   **W**EST
- O'watnu'k   NORTH
- Gawatgw   Spruce

Questions?
Connect with a natural resource expert.
Contact us:

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1. There are 20 indigenous hardwood tree species in New Brunswick. Characteristics of leaves (simple and composite) and of buds (alternate and opposite) are useful in helping to identify these species.

a) Name two hardwood species that have composite leaves

b) Name 2 hardwood species that have opposite buds (opposite leaves)

2.   Looking through a wedge prism while doing a forest inventory cruise you will see images similar to the three below. Indicate if the tree is IN, OUT or BORDERLINE.
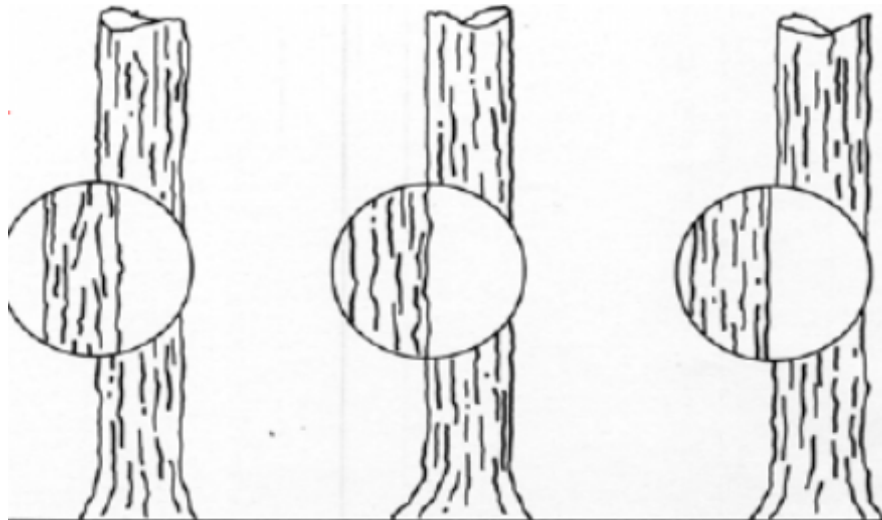
3. Name 3 tree species that are representative of the Acadian Forest Region.

4. A hectare is a unit of measure that is used to measure area. What is the size of a hectare?

a) 100 square meters
b) 1000 square meters
c) 10 000 square meters
d) 100 000 square meters
e) 1 000 000 square meters

5. Label the trees in the diagram according to their Crown Class.

Co-dominant,   Dominant,   Intermediate,   Suppressed

6. Name four non-timber forest products that can be obtained from the forests of New Brunswick.

7.   Use the following terms to fill in the blanks:

   Phloem,   Sapwood,   Cambium,   Bark,   Heartwood

a)   The _____ is a layer or zone of cells that is located inside the inner bark. It produces both the xylem and phloem cells. This is where diameter growth occurs and where rings and the inner bark are formed.

b)   The _____ carries sugar made in the leaves or needles to the branches, trunk and roots where it is converted into the food the tree needs for growth.

c)   The _____ carries the sap (water, nitrogen, and mineral elements) from the roots to the leaves. It also gives the tree its strength.

d)   _____ is old sapwood that no longer carries sap. It gives the trunk support and stiffness and is usually darker on color than the sapwood.

e)   The _____ protects the tree from insects and disease, excessive heat and cold, and other injuries.

SCIENCE
EAST

8. Trees have different tolerances to shade ranging from being very shade tolerant to very shade intolerant. Give an example of one shade intolerant and one shade tolerant hardwood and softwood species (native to New Brunswick).

Shade Tolerance	Hardwood Species	Softwood Species
Intolerant	_____	_____
Tolerant	_____	_____

9. New Brunswick's provincial tree is:

a) Black spruce

b) Eastern white pine

c) Balsam fir

d) Red spruce

e) Red oak

10. Carbon sequestration (carbon sinks) is the process through which carbon dioxide (CO_2) from the atmosphere is absorbed through photosynthesis, and stored as carbon in biomass (tree trunks, branches, foliage and roots). Forests can be viewed as sources or sinks for carbon. Give one example of how forests can act as carbon sources and one example of how they can be considered carbon sinks.

Carbon source: _____

Carbon sink: _____

SCIENCE EAST

ENVIROTHON NB

11. Forests provide much more than wood fiber. Name three benefits (other than wood products) that forests provide to society.

1. _____

2. _____

3. _____