

GR. 6: TREES AND FOREST STUDY GUIDE

I. I CAN...IDENTIFY REASONS WHY TREES AND FORESTS ARE VALUED.

Understand and explain the following terms:

- Habitat
- Ecosystem
- Producers, Consumers, Decomposers
- Biotic and Abiotic

2. I CAN...DESCRIBE KINDS OF PLANTS AND ANIMALS FOUND LIVING ON, UNDER AND AMONG TREES, AND IDENTIFY HOW TREES AFFECT AND ARE AFFECTED BY THOSE LIVING THINGS.

- Forest Levels
- Role of Decomposers (conks, lichens and fungus)

3. I CAN...DESCRIBE THE ROLE OF TREES IN NUTRIENT CYCLES AND IN THE PRODUCTION OF OXYGEN.

- Nutrient cycle
- Water Cycle
- Photosynthesis

4. I CAN...DISTINGUISH TREES FROM OTHER PLANTS, AND CHARACTERISTICS THAT DISTINGUISH DECIDUOUS FROM CONIFEROUS TREES.

- Describe characteristics that make a tree a tree (not a plant)
- Describe the parts of a tree
- Describe the parts of a leaf
- Explain the difference between coniferous and deciduous
- Leaf Classification (Leaf shapes, leaf arrangements, branching patterns and the overall form of a tree)

5. I CAN...INTERPRET THE GROWTH OF A YOUNG TREE, EXAMINE EACH YEAR'S GROWTH, AND LOCATE SCARS THAT SEPARATE OLD AND NEW GROWTH.

- Tree rings (annual rings) - Close tree rings - poor growing conditions. Far tree rings - good growing conditions.
- Trees form new wood in the spring and summer (Springwood is lighter than summerwood)
- Growth of rings is affected by (Weather, amount of growing space, soil condition, insect attacks, fire.)
- Know how to read the tree rings to tell the history of the tree.
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6. I CAN...IDENTIFY HUMAN USES OF FORESTS, AND COMPARE MODERN AND HISTORICAL PATTERNS OF USE.

7. I CAN...IDENTIFY HUMAN ACTIONS THAT ENHANCE OR THREATEN THE EXISTENCE OF FORESTS.

- Enhance
 - o Federal or provincial parks, Wilderness protection and/or animal sanctuaries
 - o Reforestation (natural regeneration, direct seeding, plant seedlings)
- Threats
 - o Logging, timber, paper and pulp production, fires, Human Recreational use

8. I CAN IDENTIFY SOME OF THE ISSUES FACING ALBERTA FORESTS

- Clear-cutting vs Selective Cutting
- Air Pollution & Acid Rain
- New Developments
- Controlling invading species