

Activity 3 Handout

Mature Forest



Part 1: Mature Forest Ecosystem

1

What is the average age of mature tree species in Alberta?

2

Which type of trees generally die and decay first, providing nutrients and food on the forest floor?

3

Which conditions found in mature forests might lead to the growth of moss, lichen, and fungi?

4

What kinds of animals are found in a mature forest & why?

5

Caribou are an animal with a special status in Alberta. Check out Inside Education's *Species at Risk- Caribou* poster to learn more. What is that status, and why?

6

The Forest Resource Improvement Association of Alberta (FRIAA) has a program called the Caribou Habitat Recovery Program where they help people and organizations like forestry companies with projects to recover caribou habitat. What are some ways that forestry companies might help with caribou habitat recovery? <https://friaa.ab.ca/programs/caribou-habitat-recovery-program/>

7

The main source of food for caribou is lichen, what is lichen?

Activity 3 Handout - Continued

8

What role do natural disturbances like fire and insects play in the forest lifecycle?

9

Visit the following link to learn more about the mountain pine beetle. Why is a natural disturbance like pine beetle an emergency? What role might humans have played in this problem?

<http://albertaforestproducts.ca/our-industry/forestry/mountain-pine-beetle/>

Part 2: Forest Values

1

Give four examples of how a forest is important to people, which is most important to you, and why?

2

How do forestry companies account for these values in forest management planning?

3

Noel is a Forest Community Liaison and his job is to gather input of different forest values before a harvest. Sometimes there are limitations to scientific knowledge about landscapes. This is where traditional knowledge and community consultation come into play. What are some things that foresters can learn from community consultation?

4

Visit workwild.ca and take the careers quiz. Which three careers did it suggest for you? How do they connect to your values?

Activity 3 Handout Continued

Part 3: Take a Stand Activity

Activity: Take a stand. Read the following statements aloud to visualize different perspectives on forest issues. If students agree with the statement they stand. If they disagree, they remain seated. Feel free to add your own! There are no right or wrong answers, this activity demonstrates that people may have different opinions and values related to the forest.

- Humans are apart from the forest (sit) vs. Humans are a part of the forest (stand)
- All forest fires should be extinguished immediately
- ATV's (quads or side-by-sides) should be allowed anywhere within Alberta
- Logging in Provincial Parks should be allowed
- Logging is harmful (sit) or helpful (stand) to the forest
- A forest can be replanted
- It is possible for all forest users to work together to make decisions on how to use the forest in a responsible way
- Making products from wood is more sustainable than some alternatives
- We should do our part to ensure the survival of endangered species
- Nobody should own the forest

Activity 3 Handout Continued

Part 4: Harvesting Mature Forests

1

How much of Alberta's land is forested?

2

What percentage of our forests can we sustainably harvest annually? Why?

3

As forests grow, they take carbon dioxide out of the atmosphere and store it in the trees and soil. Compare and contrast what happens to the carbon when a forest is distributed by harvesting and by fire.

4

What role does harvesting and sustainable forest management play in fire, insects, and disease?

5

Watch "*Why certain naturally occurring wildfires are necessary*" by Jim Shultz and TedED. What role does fire play in the life cycle of forests in western North America? How do you think humans have changed that relationship over time?

Activity 3 Handout Continued

6



Forestry companies are always working to reduce and minimize impacts of harvesting through sustainable management. Analyze the images above and describe how harvesting has changed to mimic natural disturbances like fire? What might be different between a fire and a harvest?

Optional: [Explore the Mountain Legacy Project](#) to compare historical and modern photos of landscapes in Alberta. What are some things you notice about how the landscape has changed over time? Check out the suggested locations below. We also recommend you take the time to explore forest in your area if comparisons are available.

- [Gap Lake](#)
- [Mount Coulthard](#)
- [Mount Louie](#)