

Lesson #2: Major Activities and Their Impacts

Time required: One 60-75 minute class period

Setting the Stage	
Topic:	Watershed Activities and Their Impacts
Program of Study Information	<p>Program of Study: Career and Technology Studies Natural Resources Environmental Stewardship Strand</p> <p>Relevant Course(s): ENS 3040: Energy and the Environment</p> <p>Curricular Outcomes: <i>Students will:</i> <i>1. Describe the social, economic and environmental significance of energy development (Outcomes 1.1-1.4)</i></p> <p>ENS 3050: Environmental Politics</p> <p>Curricular Outcomes: <i>Students will:</i> <i>2. analyze challenges in developing, influencing and implementing environmental policies</i></p> <p>ENS 3910: Project D</p>
Required Materials	<ul style="list-style-type: none"> • Whiteboard or Flipchart Paper for Brainstorming • Markers • Computers for Student Research
Type of lesson	Brainstorm Discussion Research
Word Wall	Agricultural Impacts Energy Projects Resource Extraction Urban and Suburban Development

Getting Started	
Topic opener “hooks”	Intro/ Hook ideas: “Oil Sands at a Crossroads” is an investigative report on the economic and environmental issues at play in the Alberta Oil Sands: https://www.youtube.com/watch?v=LsyEnkb0Gn0 : 0:00 to 8:30) Where resource development is an issue upstream of the study site, this video can help introduce the topic.
Lesson Sketch	
Outline	<ol style="list-style-type: none"> 1. Review the question for consideration that was posed at the end of lesson one: <i>Which of the activities that you have listed has the most impact on the aquatic ecosystem that you have studied?</i> <ol style="list-style-type: none"> a. Restate the question by writing it on the board. b. Have students spend ~5 minutes on their own picking the activity that they believe had the most impact on the study site and justifying their choice. This can be written down or not. Emphasize students to go with their gut instinct, as they will have the chance to do more research in the coming lessons. c. Divide the class into groups of 3-4 so that they can share their opinions and designate a recorder d. Students will spend 5-10 minutes discussing their choices in groups while one student records the conversation. e. Students will then discuss what they think they need to know about development activities in order to have a better understanding of the potential impacts. This can be done as a short discussion in small groups and then should be extended to a larger class discussion where the teacher can probe and assist students to consider more in depth questions.
Closing Ideas	
Preparation for the Next Lesson	Video: How the Alberta Government Monitors Water. https://www.youtube.com/watch?v=eF7wgHk3H08 Government legislation is a part of their project as is Hydrology. This video will give an introduction to both.

Notes: