

Name: _____

Date: _____

Ecology Project: How does human activity affect the environment?

PARTNER RESEARCH PROJECT /50

You will be marked on critical thinking skills (quality of research and presentation of results) and personal/social skills (collaboration and communication with your partner).

CREATIVELY PRESENT YOUR RESEARCH AS A POSTER, REPORT, DIORAMA, OR OTHER (CHECK WITH TEACHER FOR APPROVAL).

1. Select ONE large scale human activity:

agriculture - monoculture
oil and gas extraction
water bottling plant
any coal burning factory
proposed Site C Dam
mining

production of nano-particles
fish farming
any factory dumping waste
clear cutting forests
pipeline development

2. Describe the activity: /5

- Name the activity/industry (ex. fracking)
- What product is produced/What resource is exploited or harvested? (oil extraction from ground)
- Where in Canada is this done? (Fort MacMurray, Northern Alberta)
- What companies do this? (Shell)
- Why is this done? (Oil and gas needed to power our cars)

3. What is the effect on the environment? /10

- What waste product(s) are created from this activity? (bitchuman)
- What happens to the waste? (dumped into the streams, landfill, water run-off)
- What type of ecosystem does this affect? (rivers, soil, atmosphere, etc.)
- How is the ecosystem affected? (habitat damaged, soil contamination)
- What organisms (plant/animal) are directly affected?
- What organisms are affected indirectly? (How is the rest of the food web affected because of this?)

4. What nutrient cycle is affected? /5

- Describe and draw the balanced nutrient cycle - be sure to indicate stores and flows
- With different coloured arrows, indicate how the cycle is disrupted (movement of more/less nutrients and/or pollutants)

Name: _____

Date: _____

5. How will this activity affect the environment in the future? /5

- Describe what you think will happen to the environment if we keep going with this activity?
- Describe what you think the environment would look like if activity were to increase due to increased demand?
- How will the species in your scenario be affected?

6. How could we reduce the environmental impact of this activity? /5

- Can you come up with a better, more efficient or alternative method of producing/harvesting?
- Can you think of something we could use instead?

7. CITE YOUR WORK /5

Write down a minimum of 3 different sources (textbooks, magazines, websites, Wikipedia is NOT a reliable source)

If you use a website, you have to copy the URL.

Use your own wording. No plagiarism/copying!

8. Quality of Work /4

- Full sentences when writing in paragraphs
- Labelled diagram
- Work is neat
- Work is organized clearly

9. Collaboration /6 (Partner Assessment - see Rubric)

10. Engagement/Communication - Evaluation of other student's work /5

You will be expected to assess your peers' work during a "gallery walk" in class time. You will be marked on your evaluation using a rubric and engagement with your peers during the gallery walk.