

Appendix 3: CT lesson plan template: ASSIGNMENT #2

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Science CT Lesson Plan Template

Lesson Title: ___ Species at Risk _____ **Grade:** _4_ **Date:** _October 16, 2015_ **Subject/Strand:** _Science_ **Unit:** Habitats and Communities **Location:** OH02 **Time:** (length in minutes): __140 (70mins per block)

Lesson Plan Description (What are you teaching? How does it fit into the context of the unit? What are the big ideas/essential/enduring understandings?)

This culminating task will have students utilizing knowledge obtained from previous lessons. They will apply their knowledge on habitats, the necessities of a habitat for species survival, and human impact on habitats. Students will use their previous knowledge to research the 5Ws regarding a species at risk of his/her choice and create an informational poster on said species.

CURRICULUM CONNECTIONS

Big Ideas/Fundamental Concepts

System and Interactions: Plants and animals are interdependent and are adapted to meet their needs from the resources available in their particular habitats. Changes in habitats (whether caused by natural or human means) can affect plants and animals and the relationships between them.

Ontario Curricular Overall Expectations (numbers from documents and details)

1. Analyse the effects of human activities on habitats and communities

Ontario Curricular Specific Expectations (numbers from documents and details) selected & listed from the Ont. Curriculum, refined when necessary, has verbs that are observable & measureable, has realistic number of expectations (1 to 3), have expectations that match assessment

- 1.1 Analyse the positive and negative impacts of human interactions with natural habitats and communities.
- 1.2 Identify reasons for the depletion or extinction of a plant or animal species, evaluate the impacts on the rest of the natural community, and propose possible actions for preventing such depletions or extinctions from happening.

Learning Goals Discuss with students: *What will I be learning today?* (clearly identify what students are expected to know and be able to do, in language that students can readily understand.)

Today I will learn...

- To identify and describe the chosen species at risk's natural habitat
- To identify the reasons why the species are at risk
- To describe actions myself and the community can demonstrate to benefit the species at risk's habitat or way of life.
- To communicate findings in the form of a poster.

ASSESSMENT and EVALUATION

Success Criteria Discuss with students: *How will I know I have learned what I need to learn?* (Clearly identify the criteria to assess student's learning, as well as what evidence of learning students will provide to demonstrate their knowledge, skills and thinking, in language that students can readily understand).

I can: Choose a species at risk

I can: Critically research (avoid biases and unreliable internet sources) a species at risk

I can: Organize information with a 5Ws graphic organizer

I can: Present my findings on a poster

Assessment — How will I know students have learned what I intended?

Achievement Chart Categories (highlight/circle the ones that apply):

Knowledge and Understanding; **Thinking;** **Communication;** **Application**

Assessment For, As, Of Learning (Circle One) (Describe way(s) you and/or your students will assess.)

Assessment Mode

Written, Oral, Performance
(Write, Say, Do)

Assessment Strategy and Task for

Students- What are the students doing to show their learning? e.g. turn and talk, role play/individual, cooperative, etc.

Assessment Tool - Instrument used to assess task and record learning e.g., rubric, checklist, observation sheet, turn/talk, role play etc.

Written and oral

Students are completing the research graphic organizer and will be assessed through checklist (for completion). Students are peer editing the graphic organizer rough draft. Students are demonstrating new knowledge on the informational poster.

Checklist, rubric
Teachers will use a rubric to assess the student's ability to research information about the species at risk, answer the 5Ws, present material on poster paper, and reflect on what they learned (reflection paper).

CONSIDERATIONS FOR PLANNING

Prior Learning: Prior to this lesson, students will have (briefly outline in point form what content/skills the students will have learned in this unit)

- Can research topics effectively
- Can define a habitat
- Can describe the areas of a habitat that provide animals and plants the necessities of life
- Human impacts on habitats

Differentiation: General description of how you will differentiate this task.

- Students will have choice to work in pairs or independently.
- Students can choose to type or write information for the posters.
- Students will have choice on whether to present their poster to class or not (volunteer).
- Students will have choice to hand in a poster or report.

Learning Skills/Work Habits (responsibility, organization, independent work, collaboration, initiative, self-regulation) Brief description of the learning skills specific to this task.

Responsibility: To complete the graphic organizer as students do research

Organization: Compiling research into graphic organizer. Time management for research and poster designing.

Independent work or Collaboration: Research can be done independently or with a partner.

Self-Regulation: To stay on task

Vocabulary (for word wall and/or to develop schema)

- Ability to adapt
- Extinction
- At risk
- Endangered

Resources and Materials /Technology Integration List ALL items necessary for delivery of the lesson. Include any attachments of student worksheets used and teacher support material that will support communication of instruction. Include the use of Information Technology (ICT) in your lesson plan where appropriate.

- Graphic organizer (worksheet).
- Computers for research.
- Poster paper

- Reflection page

Learning Environment (grouping; transitions; physical set up)

Students will begin the lesson as a group at their desks. Students will then transition to a computer area (lab) to begin research on what species they wish to study and begin research (5Ws). Students will move back to desks to complete poster design (in pairs or independently)

Cross Curricular Links

Language arts: Report writing

Social studies: Human impact on natural environments.

Safety List any safety considerations for this task.

There is a safety consideration when researching online (avoid advertisements, chat rooms, etc)..

Three Part Lesson 1

Identify what the students are expected to think about or do. Write the lesson description with enough detail that another teacher could replicate the lesson without a personal discussion.

What Teachers Do:

What Students do:

Minds on: Motivational Hook/engagement /Introduction (5-15 min)

Establish a positive learning environment, connect to prior learning, set the context for learning, pre-determine key questions to guide lesson.

Time: 5 - 10 (Indicate time breakdown of instructional elements)

Activating prior knowledge and make connections to today's lesson

- What is a habitat?
- What is needed in a habitat for species survival?
- Does anyone know the term endangered species or species at risk?
- “Does anyone know an example of a species at risk? Do you know why they are at risk?”

Success Criteria for Lesson 1

I can: Choose a species at risk

I can: Compile questions I need to answer through research

I can: Critically research (avoid biases and low credibility internet sources) a species at risk

I can: Organize information with a5Ws graphic organizer

I can: Peer edit a classmate's organizer with respect

Students will engage in discussion and make inquiries and connection to the material.

Action: During /Working on it (time given for each component, suggested 15-40 min)

Introduce new learning or extend/reinforce prior learning, provide opportunities for practice & application of learning.

Time: 30 - 40 (Indicate time breakdown of instructional elements)

Teacher will go over PowerPoint describing terms such as “at risk”, “endangered”, and “extinction”.

Teacher will cover the safety rules of searching the internet (avoid advertisements, biases, chats, etc).

Students will research species at risk and will choose one to inquire.

Students will make notes of the vocabulary.

Students will compile questions to research (on top of or expanding from graphic organizer).

Students will begin research and pick a species at risk to focus on.

Students will fill out the graphic organizer as they research.

<p>Students will research the 5Ws regarding the species at risk. Teacher will walk around the room and aid any students will research. Make note on students researching skills (are they thinking critically).</p>	
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Consolidation & Connection (Reflect and Connect) (5-15 min.)
Help students demonstrate what they have learned, provide opportunities for consolidation and reflection.

<p>Time: ___15___ - ___25___ (Indicate time breakdown of instructional elements) Have students return to their desks. Have pairs switch graphic organizers with another pair to peer edit. Have student return the graphic organizer to its original owners. Give time for students to review their work and consider the edits their peers provided. Have a discussion with students about progress, where they are in the assignment (it is hopeful that they research is done). Ask “Did anyone find something interesting they would like to share today?”</p>	<p>Students will be respectful and helpful when peer editing a classmate’s graphic organizer. Students will engage in discussion to notify the teacher where they are standing in the assignment process. Volunteers will share some interesting facts about their species at risk.</p>
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****Note:** If your CT is to span more than one class block, it is expected that you complete a 3-part lesson description (minds on, action, consolidation) for each class. If the task involves multiple days of experiment observation, provide a sample of one of the observation days and indicate that it would be repeated.

Three Part Lesson 2

Identify what the students are expected to think about or do. Write the lesson description with enough detail that another teacher could replicate the lesson without a personal discussion.

What Teachers Do:	What Students do:
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Minds on: Motivational Hook/engagement/Introduction (5-15 min)
Establish a positive learning environment, connect to prior learning, set the context for learning, pre-determine key questions to guide lesson.

<p>Time: ___5___ mins ___ (Indicate time breakdown of instructional elements) Remind students of the assignment and the success criteria. Discuss with students what should be incorporated on an informational poster.</p> <ul style="list-style-type: none"> • Title • Key ideas • Pictures <p>Have students bring out their peer edited graphic organizer.</p> <p>Success Criteria</p> <ul style="list-style-type: none"> • I can communicate my learning with an informational poster • I can apply the knowledge from this lesson to suggests strategies to benefit species at risk. 	<p>Students will engage in discussion about poster design. Students will take notes on what should be incorporated on posters. Students will be prepared with their peer edited graphic organizer.</p>
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<p>Action: During /Working on it (time given for each component, suggested 15-40 min) Introduce new learning or extend/reinforce prior learning, provide opportunities for practice & application of learning.</p>	
<p>Time: ___35___ - ___45___ (Indicate time breakdown of instructional elements)</p> <p>Students will be encouraged to make any edits to their graphic organizer they feel are necessary.</p> <p>Students will work independently or with their partner and begin designing their informational poster.</p> <p>The teacher will walk around classroom and ask students questions such as “Why did you choose to do it this way?” “What are the key features you want to include, why?” Asking questions like this may encourage more thinking for students in regards to communicating their knowledge.</p> <p>Students will have the opportunity to print out text or illustrations, in comparison to writing out or drawing by hand.</p> <p>Once students have completed their poster, a few volunteers will have the opportunity to present their posters to the class (5 minutes max each).</p>	<p>Students determine what information is most important to include on the poster.</p> <p>Students will design their poster, including the ideas mentioned in the minds on section.</p> <p>Volunteers will present their findings. Students will listen respectfully to the presenters. Once the presentation is done, students will have an opportunity to ask the presenters questions about their species at risk.</p>
<p>Consolidation & Connection (Reflect and Connect) (5-15 min.) Help students demonstrate what they have learned, provide opportunities for consolidation and reflection.</p>	
<p>Time: ___10___ - ___15___ (Indicate time breakdown of instructional elements)</p> <p>A discussion will commence on the assignment as a whole. Students will discuss the parts of research they believe to be best fit for the poster.</p> <p>Teacher will ask questions such as, “How did studying a species at risk make you feel? Why? What was the main reason why the species were at risk? What might we do to help species at risk? Is there something we can do as a class to help species that are at risk?”</p> <p>Students will complete the short reflection page.</p> <p>Posters will be on display for students to view.</p>	<p>Students will engage in discussion and apply the knowledge they have gained from the assignment to suggest practical action to aid species at risk.</p> <p>Students will complete the short reflection page.</p>

Appendix 1

Graphic Organizer: 5 Ws

	Information	Sources
Who: species?		
Why: Why is it at risk?		
Where: Describe Habitat		
When: When did it become at risk		
What: What can we do?		
How: How did it become at risk?		

REFLECTION PAGE

NAME:

My Species at risk and its habitat: - _____

Why are the species at risk? How does this made you feel? _____

What actions might we do to help these species: _____

Appendix 3- Rubric

****The rubric provided is in photo format from additional document on D2I Dropbox, for organizational purposes. Please see additional document on D2I for word copy if you'd like to make specific comments. I apologize for the confusion****

Categories	50-59% (level 1)	60-69% (level 2)	70-79% (level 3)	80-100% (level 4)
Knowledge and Understanding- Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)				
The Student:				
Knowledge of content (e.g. terminology, definitions, facts)	Demonstrates knowledge of content with a limited effectiveness	Demonstrates knowledge of content with some effectiveness	Demonstrates knowledge of content with considerable effectiveness	Demonstrates knowledge of content with a high degree of effectiveness
Understanding of content	Demonstrates understanding of content with limited effectiveness	Demonstrates understanding of content with some effectiveness	Demonstrates understanding with considerable effectiveness	Demonstrates understanding with a high degree of effectiveness
Categories	50-59% (level 1)	60-69% (level 2)	70-79% (level 3)	80-100% (level 4)
Thinking and Investigation: The use of critical thinking skills and research				
The Student:				
Use of processing skills and strategies (gathering research, recording results)	Uses processing skills with limited effectiveness	Uses processing skills some effectiveness	Uses processing skills with considerable effectiveness	Uses processing skills with a high degree of effectiveness
Use of critical thinking skills and strategies (analyzing, interpreting, creating and justifying conclusions)	Uses critical thinking skills and strategies with limited effectiveness	Uses critical thinking skills and strategies with some effectiveness	Uses critical thinking skills and strategies with considerable effectiveness	Uses critical thinking skills and strategies with a high degree of effectiveness
Categories	50-59% (level 1)	60-69% (level 2)	70-79% (level 3)	80-100% (level 4)
Communication: The conveying of meaning through various forms				
The Student:				
Organization and Expression of ideas and information	Organizes and expresses ideas and information with limited effectiveness	Organizes and expresses ideas and information with some effectiveness	Organizes and expresses ideas and information with considerable effectiveness	Organizes and expresses ideas and information with a high degree effectiveness
Use of vocabulary and terminology regarding habitat and the communities in visual, oral, and/or written forms (Extinction, habitat, adaption, at risk)	Uses vocabulary and terminology regarding habitat communities with limited effectiveness	Uses vocabulary and terminology regarding habitat communities with some effectiveness	Uses vocabulary and terminology regarding habitat communities with considerable effectiveness	Uses vocabulary and terminology regarding habitat communities with a high degree of effectiveness
Categories	50-59% (level 1)	60-69% (level 2)	70-79% (level 3)	80-100% (level 4)
Application- The use of knowledge				
The Student:				
Application of knowledge and skills in familiar contexts	Applies knowledge and skills in familiar contexts with limited effectiveness	Applies knowledge and skills in familiar contexts with some effectiveness	Applies knowledge and skills in familiar contexts with considerable effectiveness	Applies knowledge and skills in familiar context with a high degree effectiveness
Proposing courses of practical action to deal with problems with species at risk	Proposes courses of practical action with limited effectiveness	Proposes courses of practical action with some effectiveness	Proposes courses of practical action with considerable effectiveness	Proposes courses of practical action with a high degree effectiveness