

What Can Be Done?

Grade 8 – Science and Technology



Lesson Details

Grade Level:	8	Curriculum Links:	Science and Technology	Time Needed:	5 hours
Learning Goal	To work together to create an initiative to be implemented at the school regarding solutions to environmental issues that could benefit the local community, themselves, and future generations.				
Success Criteria	By the end of this lesson, students will have created an interdisciplinary group project that raises awareness of issues in the environment and provided appropriate solutions to these issues.				
Specific Expectations	<p><i>Understanding Structures and Mechanisms: Systems in Action</i></p> <ul style="list-style-type: none"> Assess the personal, social, and/or environmental impacts of a system, and evaluate improvements to a system and/or alternative ways of meetings the same needs; Identify social factors that influence the evolution of a system (e.g., growing concern over the amount of waste creates a need for recycling centres, and the recycling centres must grow as population and waste increase; ...). 				
Materials Needed	Worksheet (attached), Pencil, Computer, Internet Access.				

Lesson Description

Overview	Students will utilize project management skills to research, plan, and implement a solution-based project to provide aid to local environmental concerns.
Activity	<ol style="list-style-type: none"> 1. Begin by asking students “given what you know about turtles, wetlands, and our influence on them, how can we improve turtle populations and habitats?”. 2. Distribute the attached worksheet and split the class into small groups. 3. Students will then begin their research. They will research ways in which they individually, and humans in general, can alter behaviours to minimize detrimental impacts on turtle populations. Students should then make a list, or a visual representation of problems facing turtles and relate a variety of solutions to each. Students will then assess the positive and negative impacts each solution might have. 4. Next, students will choose one initiative to move forward with from the list they created. Their chosen initiative should align with SMART goals. 5. Students will create a plan, with instructor support, for a turtle protection initiative and create a presentation illustrating how it will be implemented. 6. Throughout the course of the project, the instructor should plot check-in points with each group to assure they are on track and progressing towards their SMART goals. 7. After completing their project, students should prepare to present their findings to the class. 8. Students will assess their work and complete a peer evaluation. 9. Although this marks the end of the project research and planning, it is up to the instructor and students if they wish to go further with their project and carry it through to help the environment.

Lesson Description

Blacklist Masters	<ul style="list-style-type: none"> • Worksheet (attached) • Video Link(s): How You Can Help Ontario Turtles and Threats to Ontario Turtles • For more information, please visit https://www.turtleguardians.com/why-saving-turtles-is-important/
Place-Based Learning	Students will research local environmental issues and solutions that can/have been implemented. Students then have the option to implement their own project-based solutions to better their local wildlife.
Inquiry-Based Learning	<p>Using Guided Inquiry, the students will use project management skills to complete a group project to create solutions to local environmental problems.</p> <p>Ask the students:</p> <ul style="list-style-type: none"> • What do you know about turtles, wetlands, and our influence on them? • How can we improve turtle populations and habitats? • What local conservation efforts are in place to help turtles? • What other solutions can you think of?
Turtle Stories	Visit a wildlife centre to find out how they help the local wildlife, especially turtles, and to learn about what your community is doing to help improve the environment. Students are encouraged to share their experiences, pictures, and projects on the Turtle Stories website, found here: https://www.turtlestories.ca/
Turtle Guardian Program Links	After completing Level 1 (Ontario Turtle Identification) of the Turtle Guardian Program , students can move onto Level 2 (Wetland Watchers). In this level the students learn how to monitor wetland habitats, contribute to knowledge of wildlife-biology in the region, and are able to adopt a wetland to monitor for turtles, birds, and other animals. For more information, please visit https://www.turtleguardians.com/what-is-a-turtle-guardian/

My Notes



What Can Be Done?

Group Members: _____

Research

How can we improve turtle populations and habitats?

How do you individually, and humans in general, alter behaviours to minimize detrimental impacts on turtle populations?

Make a list or visual representation of problems facing turtles and relate a variety of solutions to each. Then assess the positive and negative impacts each solution might have.

Are there similar solutions for various problems?

Do any of the solutions create other issues (to the environment or human society)?

What is the result of a sustainable solution?

Are these solutions long-term? How do we implement them?

Planning

Choose one initiative to move forward with from the list you just created. Your initiative should align with SMART goals (Specific, Measurable, Attainable, Relevant, Time Based).

Which initiative did you choose? Why?

What conservation efforts currently exist for turtles in your local area?

What are some challenges of turtle conservation in your area?

What could cause the initiative to fail?

Who can help you in your conservation efforts?

Touch base with your instructor and plan check-in points as you continue your planning and implementation process.

Check-in points: _____

Additional Notes:



Implementation

Create a presentation outlining your SMART goals and planned initiative for turtle conservation in your local area.

How does your initiative work?

Who is involved in your initiative?

How does your SMART goals fit into your initiative plan?

**Compare your initiative to an existing conservation plan – what is different about yours?
What is similar?**

Where will your initiative take place?

Who/what is affected by your initiative?



Reflection

What do you think your group did well? What did each group member contribute to the project?

Looking at your planned initiative, what do you think worked well? What didn't?

If you were to do this project again, what would you change? What would you repeat?

Any additional notes for the instructor?
