

Note: Students do not need previous knowledge of rattlesnakes being re-introduced into the Quabbin area in order to participate in this lesson. In many ways, it is ideal if they do not have any knowledge of the topic.

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| Title | Timber Rattlesnakes and the effects of different media |
| Date | August 19, 2016 |
| Authors | Brendan Leonard, Alison Beattie, Stan Cijka, Kaitlyn Smith |
| Subject Areas  Grade Level | 10th grade. History, Visual Art, English Language Arts, Mathematics |
| Length of Lesson | 50 Minutes |

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| Content Curriculum Frameworks addressed in this lesson | Indicate each content CF with its number and details.  VA: Cr. 1.1.IIIa - Visualize and Hypothesize to generate plans for ideas and directions for creating art and design that can affect social change.    ELA: 9-10.RI.7 - Analyze various accounts of a subject told in different mediums (e.g., a person’s life story in both print and multimedia), determining which details are emphasized in each account.    SS.8-12.4 - Interpret and construct charts and graphs that show quantitative information (H, C, G, E)    MA.10 S-ID-5. Summarize categorical data for two categories in two-way frequency tables. Recognize possible associations and trends in the data. |
| Specific Technology Standards addressed in this lesson | Indicate each Technology Standard with its number and details.  ISTE Student Standard 3d: *Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.*  ISTE Student Standard 7d: *Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.*  ISTE Teacher Standard 1b: *Engage students in exploring real world issues and solving authentic problems using digital tools and resources*. |

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| Learning Targets and Assessments | |
| * Learning Targets   I can evaluate the different effects of written word and visual imagery on public opinion.    VA: I can analyze how imagery can sway public opinion.  ELA: I can evaluate multiple perspectives by analyzing written text and visual imagery.  HST: I can interpret graphs to decide how various media influence public opinion.  MATH: I can assess class opinion and its possible change due to media exposure based on collected data. | * Assessments FOR Learning (formative)   Think, Pair, Share activity after both text and images have been presented to analyze their effect on readers. Question: Based on the outcomes displayed on the graphs, discuss how the different texts did, or did not influence your opinion.  Debrief as the ‘share’ element of the TPS.   * Assessments OF Learning (summative)   Answer the last question on the Note Catcher: What kinds of media would you use/generate to sway the public’s opinion on this issue? Why would you choose these media? |

There are three phases to this lesson:

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| 1. INTRODUCTION of the lesson: Building engagement/setting purpose/activating prior knowledge…. | |
| **Instructional Steps** | **Differentiation** |
| (2 min) - The Hook: General survey of the class answering this question: Do you think Timber Rattlesnakes should be re-introduced into the Quabbin Watershed?  Ask students to close their eyes and raise their hand to vote. Take a vote for Yes, No and No Opinion.  The teacher should input the voting results into a spreadsheet (Google Sheets, or Excel) found in the materials provided. Do not show or tell the students the results at this time.  Hand out note catcher, one per person. | Question also projected for those who may not be able to hear or process clearly through teacher’s speech. “Blind” vote creates safer space for students to be honest about their position.  Note catcher provides materials and graphic organization of thoughts/ideas on lesson for the day. |

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| 1. Scaffolding plans for the BODY of the instruction | |
| **Instructional Steps** | **Differentiation** |
| (7 Min) - Share written texts of information about snakes found in the materials provided. Students read all three texts individually for this portion. Once students have finished reading ask students to either reflect individually or write down some thoughts that on what they have read on the note catcher. They should save these thoughts for the debrief at the end of the lesson.  (2 minutes) Re-poll the class with the same question (Do you think Timber Rattlesnakes should be re-introduced into the Quabbin Watershed?). Plug survey responses into Google Sheets (or Excel), do not show or tell the students the results.  (4 Minutes) Share imagery on Timber Rattlesnakes as on the slides in the materials provided. Students should view the images quietly. Manually flick through the images once you have determined there has been enough time to assess them all. Ask students to again, reflect individually or write down some quick thoughts to save for the debrief at the end.  (2 minutes) Re-poll the class again with the same question (Do you think Timber Rattlesnakes should be re-introduced into the Quabbin Watershed?). Plug survey responses into Google Sheets (or Excel), do not show or tell the students the results.  (15 Minutes) Once you have gathered the numbers from the voting, share them with the students however you can. An ideal solution is to project what you plugged into the spreadsheet. Students will now make their own graphs of the voting results.  They can do this in Google Sheets, or Excel, as provided in the materials, or if you do not have access to that technology, they can make the graphs with markers on chart paper. They should work in groups for this. The graphs should resemble the graph in **Appendix A**. The pacing for this part of the lesson is 15 minutes to allow for manual graph making. If students will be using technology, it should only take about 5 minutes and you can use the extra 10 minutes to have a deeper discussion in the next part of the lesson. | Individual copies of written texts provided and digital versions of texts can be shared via technology to be read by text to voice for learners who need audio rather than reading. Teacher would need to prepare for this by bringing any device that can access Google Docs and/or Natural Reader website. |

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| 1. END Synthesis: How will students synthesize their understanding? | |
| **Instructional Steps** | **Differentiation** |
| (11 Minutes) Move to a Think, Pair, Share with these questions: Looking at the bar graphs, were there any recognizable trends? Were there any surprises? Also, discuss how the different media did, or did not, influence the class opinion.  (7 Minutes) Summative Assessment: Answer the last question on the Note Catcher: What kinds of media would you generate to sway the public’s opinion on this issue? Would you change the order of the media? Why would you choose this specific medium? | Think, Pair, Share should help give voice to students who may not have the confidence to immediately share with the whole group. Also provides an opportunity for peer-to-peer learning to generate more ideas to input on Note Catcher. |

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| Notes for the teacher:  If this lesson is to be used throughout the school across disciplines, then below are some examples of how other classes can align with this lesson:  Math: For Geometry class, consider the results of the three surveys. Express your conclusions as a two-column proof, paragraph proof, a rap, a poem, a dance, a poster, or some other manner that indicates you understood the task and the overall trend of the data reflects the change in the poll results from initial poll to post text poll too post images.  Visual Arts: Applying the concepts we’ve learned from the class discussion on the effects of different texts, have students consider and plan how they would make their own creative visual work to sway public opinion. Examples may include posters, informational pamphlets, or even videos. The last question on the note catcher should provide guidance for this assignment. There are clear connections to SEL curriculum here addressing issues of social awareness, relationship skills and responsible decision making.  Social Studies: Following this assignment, students could participate in making historical arguments for re-introducing Timber Rattlesnakes into the Quabbin. The students would use evidence from primary sources (ex: Ben Franklin’s The Rattlesnake as a Symbol of America) and historical images such as Gadsden’s Flag to write persuasively of the snake’s historical importance and connection to American identity.  ELA: To continue the discussion on the effects of the written word in swaying public opinion, have students take a deeper dive into protest literature (i.e. Upton Sinclair’s *The Jungle*, Thoreau’s *Civil Disobedience).* Students can then apply these concepts to create their own persuasive essays to make an argument for or against something they feel strongly about. Allow students to make choices about the subject matter and the format of their assignment. |

Please include information on each of the following:

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| **Materials Required for this lesson (complete list and each document or item typed up)**   * 1 handout per person of the texts * Students bring computers / tablets * Computer with access to Google slides and Google sheets * Preferably access to a large screen or smartboard * 1 Note Catcher per person   *For classes w/o recent technology*     * *1 handout per person of the text.* * *1 handout per person of the images printed out 1 image per page side*   *or transparent copies for use on an overhead projector*   * *1 meter stick, several markers, several large sheets of chart paper to display survey results and method to post paper* * *1 Note Catcher per person*   *For folks with reading difficulties and internet access, recommended use of a text to voice application during class or before the lesson in which an audio file has been created and discretely accessed by headphones.* |
| **Social Justice Orientation**  Throughout the lesson students will experience different perspectives on the content at hand. Through the media provided and the shared experiences of the students, the lesson explores how content impacts individuals differently. The learning process encourages questioning of the texts provided and reflecting on how each individual experiences content in their own way. |
| **Human Development – Age appropriate learning and activities – elaborate on how you selected the activities and how you know they are age appropriate**  Students in grade 10 are generally able to think abstractly about big questions at this time in their development. We are asking large questions such as how different media affect change. We are asking the students to make an association with the case study of Timber Rattlesnakes with a wider statement about public opinion. We chose activities such as Think, Pair, Share and group discussion to allow them to discuss and learn from each other. These skills used in these types of class activities are skills we deem important for them to have for their future, therefore we want them to use these skills as much as possible to strengthen that part of their brain. |
| **Technology Integration – write a paragraph on how the technology in this lesson enhanced the learning of the students.**  We chose to use Google Sheets because we needed a resource that would facilitate capturing data very quickly and turning it into visual graphs almost instantly. Our lesson relies heavily on real-time data collection, so this was an ideal solution for our group. This solution was more ideal than using Google Forms where we would need everyone to take out their device and check their email and then input their responses. Using Sheets seems to make the process much quicker for our purposes. A likely follow up activity that could tag onto this lesson is the students go out and poll others and create their own data. The use of this technology in the lesson enhances the learning of students because they are helping to create authentic data that is relevant to what they are doing in that moment. The data they are helping to create will allow them to analyze the results right away and ask larger questions about their learning target in general.  We also used Google Slides to present our information visually. There were a few reasons for this. First, we did not want to waste paper by printing in color all the images many times over, so we decided to project them on the screen. Then, we realized that we could also use the slides to differentiate our instruction technique, to suit those students who need to read the question we are posing because they may not be able to hear or have a problem processing the teacher’s speech.  Also, as a part of our differentiation instructions, we have noted that if need be, the teacher can use the texts with text to speech technology such as Natural Reader to help those students who need to hear the texts, rather than read them independently. While we did not need to do this for our lesson, we still thought a great deal about the technology we used, and could use if the lesson needs to be manipulated for different learning styles. Depending on how the instructor wanted to display the results of the polls, they could even use something like pollEV, to get some results in a different format, for example. |
| **Social Emotional Learning – write a paragraph about how you have included process or activities that speak to the ‘heart’ rather than simply content – the head!**  The lesson deals directly with issues of personal feelings and opinion, and how different texts can affect those feelings and opinions. Through reflecting on the effects of these texts, students will grapple with self-awareness and perhaps even self-management if the images are truly difficult for them to process.  The lesson addresses the power of the writing and imagery on public opinion, helping the students focus on social awareness and the consequences of generating particular words and images. It challenges the students to consider how they might intentionally sway public opinion. Students will be asked to think critically about their responsibilities as content creators to the public and how their decisions extend outside of themselves. |

***Appendix A***

Number of responses for specific category

As we start After media 1 After media 2

Survey Results

Against

Neutral

For

Against

Neutral

For

Against

Neutral

For