

## Lesson Title: Arguments

### Foundation 6: Use of Technology for Project-/Problem-Based Learning

#### English Grade 12

NETS (National Educational Technology Standards)	
<b>1. Creativity and Innovation</b>	Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: <i>b. create original works as a means of personal or group expression</i>
<b>2. Communication and Collaboration</b>	Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students: <i>a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media</i> <i>b. communicate information and ideas effectively to multiple audiences using a variety of media and formats</i> <i>d. contribute to project teams to produce original works or solve problems</i>
<b>3. Research and Information Fluency</b>	Students apply digital tools to gather, evaluate, and use information. Students: <i>b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media</i> <i>c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks</i>
<b>5. Digital Citizenship</b>	Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students: <i>a. advocate and practice safe, legal, and responsible use of information and technology.</i> <i>b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</i> <i>c. demonstrate personal responsibility for lifelong learning.</i> <i>d. exhibit leadership for digital citizenship.</i>
<b>6. Technology Operations and Concepts</b>	Students demonstrate a sound understanding of technology concepts, systems, and operations. Students: <i>a. understand and use technology systems</i> <i>b. select and use applications effectively and productively</i> <i>c. troubleshoot systems and applications</i>

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Common Core State Standards
<b>ELA-Literacy.RI.11-12.5</b> Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
<b>ELA-Literacy.RL.11-12.1</b> Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
<b>ELA-Literacy.W.11-12.1</b> Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
<b>ELA-Literacy.WHST.11-12.4</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
<b>ELA-Literacy.WHST.11-12.5</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
<b>ELA-Literacy.WHST.11-12.6</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
<b>ELA-Literacy.W.11-12.7</b> Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
<b>ELA-Literacy.W.11-12.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
<b>ELA-Literacy.W.11-12.9</b> Draw evidence from literary or informational texts to support analysis, reflection, and research.
<b>ELA-Literacy.WHST.11-12.10</b> Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

## Materials

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- Project website (<http://tinyurl.com/stem6>)
- Google sharing help documents linked to from project website
- *Google Drive* accounts for each student
- Computer lab
- Student Project Sheet
- Student Rubric and Scoring Sheet
- Student Planning Sheet (2 copies for each student)
- Exemplar essay *The Plight of the Pacific Northwest Tree Octopus* (1370L)
- Websites on Arkansas linked from the project website
- Magazines and pamphlets on Arkansas
  - *Arkansas Adventure Guide*
  - *Arkansas Tour Guide*
  - *Arkansas State Park Guide*
  - *Arkansas Calendar of Events*
  - *Living in Arkansas* magazine
  - *Arkansas State Highway Map*

## Procedures

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1. To review with students the elements of the argument essay (claim, reasons, evidence, counterclaims, evidence for counterclaims) the students will read an exemplar text and then identify those elements.
  - a. Reading of exemplar text *The Plight of the Pacific Northwest Tree Octopus* (1370L). The text is located online (linked to from project website.) Show students how to get to link.
    - i. Note: The Pacific Northwest Tree Octopus is a fictitious animal. It has an entire website devoted to the fact that it is an endangered animal. As some point during the lesson, students will most likely question the validity of the existence of this animal. This will produce an information literacy teaching opportunity. If the students never question the existence of the animal, the teacher can bring it forth through questioning towards the end of the lesson to generate discussion around information literacy with respect to internet sites.
  - b. In pairs, students will identify (recording on the *Student Planning Sheet* organizer):
    - i. Claim
    - ii. Reasons
    - iii. Evidence
    - iv. Counterclaims
    - v. Evidence for the counterclaims
  - c. Engage students in class discussion, asking them to report out their findings.

2. If any of the students question the validity of the existence of the Pacific NW Tree Octopus, move into a discussion of information literacy (this discussion could happen at almost any time during the lesson):
  - a. How can we check for authenticity of its existence?
    - i. Look for websites that give information about the octopus
  - b. For any websites we find on the animal, how can we validate the information?
    - i. Back off URL (delete all the way back to the .com, .edu, etc.) to see the main site that links to the website
    - ii. Look for author credentials
    - iii. Look for date last updated
    - iv. Look for citations/references on website
  - c. Pull up the website for the Pacific Northwest Tree Octopus and have students examine it for authenticity using the suggestions above. Have them report out their findings.
3. In preparation for the project, place students in groups of no more than three. Use the SMART Notebook *Random Word Chooser* to randomly place students into the six regions.
  - a. Simultaneous collaboration on an online Google document works best with no more than three students. If needed, more than one group of some of the regions may be required.

## **Project**

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1. Give the students the *Student Project Card*, which details the project scenario. The *Student Project Card* information is also included below. Teacher reads the project scenario to students, and then has students take turns reading the essential and guiding questions out loud, asking them for clarification, thoughts, and ideas.
2. Give students the *Student Planning Sheet*, and have them brainstorm their claim, reasons, evidence, counterclaims, and evidence for counterclaims.
3. Give students the *Rubric and Scoring Sheet* and relate it to the criteria on the *Student Project Card*. Tell students to refer to the rubric during the writing process.

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## Writing an Argument Student Project Card

Here are the *essential questions* you will investigate in this project:

- How does an author craft an argument?
- How is technology used to plan, draft, revise, edit, and publish writing products in response to ongoing feedback, including new arguments or information?

Here are the *guiding questions* to help you in this project:

- How will you organize your argument?
- What rhetorical strategies will best develop your argument while avoiding logical fallacies?
- What is the claim?
- What types of information and data will be useful in persuading others to keep or make Arkansas home?
- What are the possible counterclaims, and how will you refute them?
- How will you present your argument?

A representative from *Arkansas Next – A Guide to Life After High School* is inquiring about ways to keep young Arkansans in Arkansas after graduation- not being forced to leave for better pay, variety of jobs, recreational opportunities, etc. The Whozitt Agency has selected your class to write a variety of articles for *Arkansas Next*. The goal of the project is to convince young people, tourists, and companies to make Arkansas home.

You will be assigned to a group based on the geographical regions of Arkansas (Ozark Mountains, Arkansas Valley, Ouachita Mountains, Gulf Coastal Plain, Delta, and Crowley's Ridge.) Each group will be responsible for writing an argument, which introduces the claim and counter-claim(s) supported by evidence to convince the audience to make Arkansas as their home. In this essay, you will need to collect evidence to support your claim (i.e. current trends in the economy, possible economic developments, cost of living projections, higher education opportunities, recreational opportunities.) You will also need to anticipate and address counterclaims using reasons and evidence and to show your claim as superior to the counterclaims. Each geographical group will then "pitch" their ideas to the Whozitt Agency for publication in *Arkansas Next*. Your pitch can take the form of:

- An interview between a reporter and a member of the Chamber of Commerce of the region
  - A poem that extols the virtues of your region
  - A negative TV ad lambasting neighboring regions
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# Teacher Created Materials

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4. Reference for the students both the online resources linked to from the project website and the print resources.
5. Model for the students how to work collaboratively on one document.
  - a. From the teacher-projected computer, have one student from a pair start a new document from their Google account.
  - b. Direct that student to use the share feature to share their document with their partner (this process will prompt the student to enter their partner's email address.) Make sure they give their partner editing privileges.
  - c. Talk to the students about coming up with a plan for working on the shared document.
    - i. How will each student keep track of what the other is writing? (Different fonts? Different colors? Divide the page?)
    - ii. Who will take responsibility for writing each of the criteria pieces? (claim, reasons, etc.)
6. Have all partner pairs now create their working documents, allowing sharing with editing privileges. Have each partner pair also share their document with the teacher.
7. Allow students to begin work on their rough drafts.
8. As the students begin work, the teacher can alternate from assisting students at their computers to assisting them via the online sharing.
  - a. Teacher can monitor all student work from the teacher computer; then physically move to students who are in need of help or direction, or use the comment feature to guide students.
9. In order to make sure that teacher feedback is focused and relevant for students, students can use the commenting feature in their document to ask the teacher specific questions. For example, a student could ask:
  - a. "Do you have any suggestions on the evidence for my claim? I had a hard time locating factual information."
10. Students should continue working on their rough drafts, moving to a mid-process draft, and then to a final draft.
11. Final essays can be posted to the teacher's *Google Site*, or to a student's *Google Site*.
12. Explain to students they will now make their pitch to the Whozitt Agency. The pitch can take the form of:
  - a. An interview between a reporter and a member of the Chamber of Commerce of the region
  - b. A poem that extols the virtues of your region
  - c. A negative TV ad lambasting neighboring regions
13. Use the SMART Notebook random word chooser to choose the order in which groups will perform their pitch in front of the class.

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## Assessment

The students will use the *Rubric and Scoring Sheet* to self-assess their work. Each group will also have a peer group assess their project using the *Rubric and Scoring Sheet*. Lastly, the teacher will use the *Rubric and Scoring Sheet* to assess the student work.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Writing an Argument Rubric and Scoring Sheet

Criteria	Level I	Level II	Level III	Self Score	Peer Score	Teacher Score
<b>Claim</b>	Either does not provide a claim, or the claim is weak and not well developed.	Introduces knowledgeable claim and establishes the significance of the claim.	Introduces precise, knowledgeable and insightful claim and establishes the significance of the claim.			
<b>Reasons and evidence to support the claim</b>	Does not provide both reasons and evidence to support the claim.	Provides reasons and evidence to support the claim.	Provides sensible reasons and detailed, accurate, and strong evidence to support the claim.			
<b>Counterclaims</b>	Either does not provide counterclaims, or the counterclaims are weak and not well developed.	Introduces knowledgeable counterclaim and establishes the significance of the counterclaim.	Introduces precise, knowledgeable and insightful counterclaim and establishes the significance of the counterclaim.			
<b>Evidence to support the counterclaims</b>	Either does not provide evidence to support counterclaims, or the evidence is inaccurate and weak.	Introduces accurate evidence to support counterclaims.	Includes detailed, accurate, and strong evidence to support counterclaims.			
<b>Organization</b>	Lacks organization and fails to include a logical sequence of claims, counterclaims, reasons and/or evidence.	Generally organized and includes a logical sequence of claims, counterclaims, reasons and/or evidence.	Represents a purposeful organization of claims, clearly considers the intended audience, and there exists a logical sequence of claims, counterclaims, reasons and evidence.			
<b>Comment Box</b>			<b>Total Score</b>			



Name: \_\_\_\_\_

Date: \_\_\_\_\_

Student Planning Sheet		
Claim:		
Reasons:		
Evidence		
Counterclaims	Evidence for Counterclaims	

The Pacific Northwest tree octopus (*Octopus paxarbolis*) can be found in the temperate rainforests of the Olympic Peninsula on the west coast of North America. Their habitat lies on the Eastern side of the Olympic mountain range, adjacent to Hood Canal. These solitary cephalopods reach an average size (measured from arm-tip to mantle-tip,) of 30-33 cm. Unlike most other cephalopods, tree octopuses are amphibious, spending only their early life and the period of their mating season in their ancestral aquatic environment. Because of the moistness of the rainforests and specialized skin adaptations, they are able to keep from becoming desiccated for prolonged periods of time, but given the chance they would prefer resting in pooled water.

An intelligent and inquisitive being (it has the largest brain-to-body ratio for any mollusk), the tree octopus explores its arboreal world by both touch and sight. Adaptations its ancestors originally evolved in the three dimensional environment of the sea have been put to good use in the spatially complex maze of the coniferous Olympic rainforests. The challenges and richness of this environment (and the intimate way in which it interacts with it,) may account for the tree octopus's advanced behavioral development. (Some evolutionary theorists suppose that "arboreal adaptation" is what laid the groundwork in primates for the evolution of the human mind.)

Reaching out with one of her eight arms, each covered in sensitive suckers, a tree octopus might grab a branch to pull herself along in a form of locomotion called tentaculation; or she might be preparing to strike at an insect or small vertebrate, such as a frog or rodent, or steal an egg from a bird's nest; or she might even be examining some object that caught her fancy, instinctively desiring to manipulate it with her dexterous limbs (really deserving the title "sensory organs" more than mere "limbs",) in order to better know it.

The reproductive cycle of the tree octopus is still linked to its roots in the waters of the Puget Sound from where it is thought to have originated. Every year, in Spring, tree octopuses leave their homes in the Olympic National Forest and migrate towards the shore and, eventually, their spawning grounds in Hood Canal. There, they congregate (the only real social time in their lives,) and find mates. After the male has deposited his sperm, he returns to the forests, leaving the female to find an aquatic lair in which to attach her strands of egg-clusters. The female will guard and care for her eggs until they hatch, refusing even to eat, and usually dying from her selflessness. The young will spend the first month or so floating through Hood Canal, Admiralty Inlet, and as far as North Puget Sound before eventually moving out of the water and beginning their adult lives.

### Why It's Endangered

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Although the tree octopus is not officially listed on the Endangered Species List, we feel that it should be added since its numbers are at a critically low level for its breeding needs. The reasons for this dire situation include: decimation of habitat by logging and suburban encroachment; building of roads that cut off access to the water which it needs for spawning; predation by foreign species such as house cats; and booming populations of its natural predators, including the bald eagle and sasquatch. What few that make it to the Canal are further hampered in their reproduction by the growing problem of pollution

from farming and residential run-off. Unless immediate action is taken to protect this species and its habitat, the Pacific Northwest tree octopus will be but a memor

The possibility of Pacific Northwest tree octopus extinction is not an unwarranted fear. Other tree octopus species -- including the Douglas octopus and the red-ringed madrona sucker -- were once abundant throughout the Cascadia region, but have since gone extinct because of threats similar to those faced by paxarbolis, as well as overharvesting by the now-illegal tree octopus trade.

The history of the tree octopus trade is a sad one. Their voracious appetite for bird plumes having exhausted all the worthy species of that family, the fashionistas moved on to cephalopodicaccoutrements during the early 20th Century. Tree octopuses became prized by the fashion industry as ornamental decorations for hats, leading greedy trappers to wipe out whole populations to feed the vanity of the fashionable rich. While fortunately this practice has been outlawed, its effects still reverberate today as these millinery deprivations brought tree octopus numbers below the critical point where even minor environmental change could cause disaster.

### How You Can Help

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Here are a few things that you can do to help save the Pacific Northwest tree octopus:

- Write your representatives to let them know that you are concerned and that you feel the tree octopus should be included on the Endangered Species List and given special protection.
- Help build awareness of the tree octopus by telling your friends and co-workers.
- Place a tentacle ribbon on your website.
- Participate in tree octopus awareness marches. You can demonstrate their plight during the march by having your friends dress up as tree octopuses while you attack them in a lumberjack costume.
- Pamphlet your neighborhood. Tentacle ribbons make excellent doorknob hangers.
- Join and donate to an organization committed to conservation, such as Greenpeas.
- Boycott companies that use non-tree-octopus-safe wood harvesting practices.
- Sign an online petition! Nothing activates activity like an Internet petition.