

The Freedom of Water

In this unit you will find the following components:

- SERVICE-LEARNING introduction
- 4MAT references
- Content integration (focus on LANGUAGE ARTS, with science/health, social studies/geography, social sciences, math, and technology components)
- High school application
- Middle school application suggestions
- NAD standard coverage
- Technology integration
- Student-centered, project-based learning

Suggested time frame for this unit is no less than four (4) weeks in order for students to research and implement their project. The unit can be applied to an entire school year, and projects can continue indefinitely by individual students and/or groups.

While the primary content area of this unit is English/language arts, there are many other content areas integrated. Therefore, it is suggested that teachers in stand-alone classrooms (i.e. teaching just English/language arts) collaborate with technology teachers, science/health teachers, and social science teachers to create a well-rounded, integrated approach to the service-learning project.

Because education should be more fluid than rigid, and because each teacher will have different methods of presentation and differing results, your feedback and recommendations are welcome! It is my hope that the unit will become better with age, because teachers have collaborated to make it so!

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Service Learning Introduction

How would you like to implement a form of learning that will help your students answer the “why” in the ever-present “Why do I have to learn this?” question? How would like to teach in a way that “sticks” and that provides students a foundation for better test scores, higher rates of graduation, less discipline problems, and a greater chance of going into a service-related field in the future? Service-learning can provide your students with all of these things! Before we dive into this unit, it would be helpful to have a basic understanding of what service-learning is, and the essential components necessary to create a true service-learning experience.

Definitions of service learning are abundant. A few of note are the following:

- Service-learning is a credit-bearing, educational experience in which students: 1) participate in an organized service activity that meets identified on- and off-campus community needs and 2) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility
<http://www2.byui.edu/ServiceLearning/subpages/fgdefinition.htm>.
- Service-learning is a type of **Experiential Education** that combines and pursues both **Academic Achievement** and community service in a seamless weave, requiring the use of effective **Reflection** exercises. The goal of service-learning, through linking academics to the community, is to develop the skills, sensitivities, and commitments necessary (f)or effective **Citizenship** in a democracy
<http://www.missouristate.edu/casl/4567.htm>
- We view service-learning as a credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect(s) (sic) on the service activity in such a way as to gain further understanding of the course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. Hatcher, J.A., & Bringle, R.G. (1997). Reflection: Bridging the gap between service and learning. *College Teaching*, 45 (4), 153-158.
- The term “service-learning” means a method:
 - (A)Under which students or participants learn and develop through active participation in thoughtfully organized service that—
 - (i) is conducted in and meets the needs of a community;



(ii) is coordinated with an elementary school, secondary school, institution of higher education, or community service program, and with the community; and

(iii) helps foster civic responsibility; and

(B)That—

(i) is integrated into and enhances the academic curriculum of the students, or the educational components of the community service program in which the participants are enrolled; and

(ii) provides structured time for the students or participants to reflect on the service experience (the National and Community Service Trust Act of 1993 as amended through December 17, 1999, P.L. 106-170).

While exact definitions differ, we can see that several key components need to be present in order to have an effective service-learning educational experience:

- Clear academic goals and outcomes
- Purposeful goals for a service project that benefits others
- Reflection



When we add clear academic goals and outcomes to the community service we often do, or when our “community service” opportunities are created around academic standards and goals, we have the beginning of “service-learning.” If we create an opportunity for our students to serve others but do not connect the service to their academic goals, it is no different from community service. Community service has long been a part of our schools, as it should be. When we bless other people, we are following in the footsteps of Jesus (see Matthew 25: 44 –

46, Isaiah 58, and many other Bible passages). This is always the

goal of education – to point our students to Jesus, and to help them develop their own vibrant, meaningful relationship with Him. But when we can connect service to others to what is happening in the classroom, we receive the benefit of not only helping our students walk a life of service, but also bringing that service-component into the classroom and connecting it to the often mundane tasks of learning!

Service-learning projects need to have purposeful outcomes in our communities, or in the world at large. This means we (students and teachers) take time to learn what would be meaningful as a projected outcome of our learning and our service. We take time to learn the present needs, what is currently being done, and how we can make a significant difference with our service-learning project.

As noted in all the definitions for service learning included in our introduction, service-learning is not complete without reflection. A summary of the importance of reflection is the following:

Analysis and Reflection

Analysis and reflection are an important part of service-learning. Participants are intentionally guided through activities to reflect upon the work being performed, the processes by which the work is accomplished, and the implications of the work. This is important because metacognitive activities, including reflection, have been shown to improve learning (Bransford et al., 2000).

Metacognition can help students understand:

- The academic material covered by the course.
- How the course material relates to the service.
- The implications of the social context and issues associated with the need being met.
- The role of the discipline in the context of large social issues.

Activities promoting analysis and reflection can take several forms, including open-ended questions, written or oral guided discussion topics, periodic written summaries of the work being undertaken and its implications, and assigned readings.

<https://engineering.purdue.edu/EPICSHS/Teachers/Summer/Documents/Definitions%20of%20Service%20Learning.pdf>

This service-learning unit will include instructions and suggestions for incorporating all the required elements of service-learning into a meaningful package of lessons, activities, rubrics, suggested journal prompts, Internet resources, and other materials to bring life to your lessons and meaning to your instruction while blessing the world for Jesus' sake!

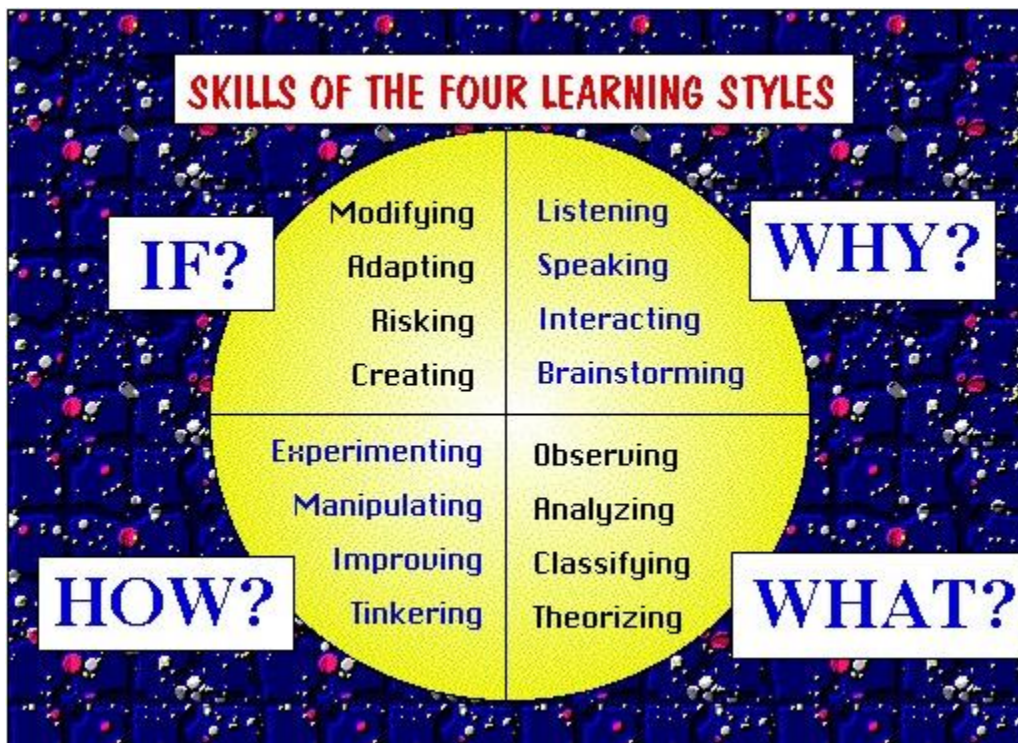


4MAT Overview

4MAT, a “method for helping anyone learn anything” (<http://www.aboutlearning.com/what-is-4mat/what-is-4mat>), was developed and is taught and championed by Bernice McCarthy. The 4MAT philosophy and method of instruction fits perfectly with service-learning (as with many other methods of teaching, such as project-based learning). While the 4MAT method will not be followed rigorously in this unit, various components will be included and referenced throughout. Therefore, it would be helpful to have an overview of the 4MAT method of instruction.

The following summary and graphics are copied from <http://www.edpsycinteractive.org/topics/instruct/4mat.html> by permission from the author:

According to [Bernice McCarthy](#), developer of the [4MAT](#) system, there are [four major learning styles](#), each of which asks different questions and displays different strengths during the learning process.



These styles are based on the work of John Dewey, Carl Jung, and David Kolb (Germain, 2002). [The Index of Learning Styles Questionnaire](#) developed by Solomon and Felder (Felder, 1993) provides data relevant to Kolb's learning theory. The Myers-Briggs Type Indicator (MBTI) and the [Kiersey Temperament Sorter II](#) define an associated theory for

Jung's theory of personality style and temperaments. About Learning has developed a [Learning Type Measure](#) that directly addresses the four types of learners.

The Concrete-Random or "Imaginative Learner" demands to know "Why" he or she should be involved in this activity. This temperament is similar to the SP (Sensing/Perceiving) temperament in the MBTI. The Abstract-Sequential learner wants to know "What" to learn and is similar to the NT (Intuitive/Thinking) temperament. The Concrete-Sequential learner wants to know "How" to apply the learning and is similar to the SJ (Sensing/Judging) temperament. The Abstract-Random learner asks "If" this is correct how can I modify it to make it work for me. This is similar to the NF (Intuitive/Feeling) temperament. In the language of the ancient Greeks, these are the [Sanguine, Choleric, Melancholy, and Phlegmatic](#) temperaments, respectively. The [DISC](#) personality system has a similar categorization.

Each learning style is associated with both [left- and right-brain learners](#). Left-brain learners are logical, rational, sequential, serial, verbal learners. Right-brain learners are intuitive, emotional, holistic, parallel, and tactile learners.

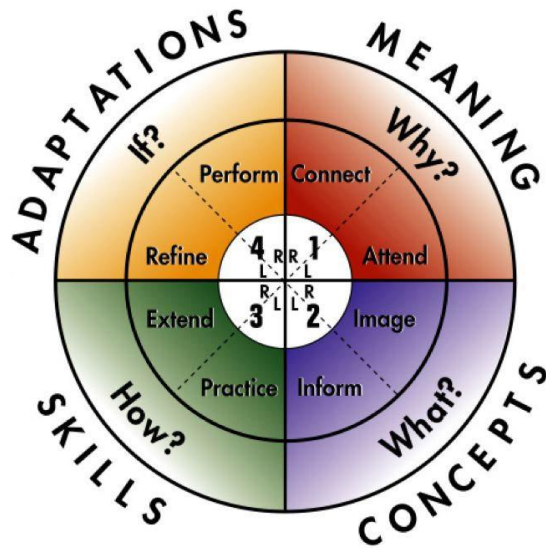
Instructional Events

The 4MAT system is designed to provide every student with a preferred task during every lesson. Listed below are the 8 instructional events proposed by this system.

STEP	LEFT MODE	RIGHT MODE
	WHY? (Motivate and Develop Meaning)	
1		Create an experience (CONNECT)
2	Analyze/reflect about the experience (EXAMINE)	
	WHAT? (Reflection and Concept Development)	
3		Integrate reflective analysis into concepts (IMAGE)
4	Develop concepts/skills (DEFINE)	

	HOW? (Usefulness & Skill Development)	
5	Practice defined "givens" (BY)	
6		Practice and add something of oneself (EXTEND)
	IF? (Adaptations)	
7	Analyze application for relevance (REFINE)	
8		Do it and apply to more complex experience (INTEGRATE)

“You have my permission to link to the article and use the graphic and chart as part of your article.” Email dated 4/30/2012 from William Huitt, author of the quoted web page, available upon request.



For additional information about 4MAT, go to www.aboutlearning.com. Graphic used by permission.

Goals and Objectives

Goals:

The goals of this service-learning unit are to:

- Create a passion in students to become life-long servants of Jesus, extending that service to their fellow-man.
- Connect service to academics to make content come alive and become meaningful.
- Impact the local or world community by providing needed services.

Objectives:

At the end of this unit, students will be able to:

- Articulate how water brings
 - o Personal/physical freedom.
 - o Social freedom .
 - o Financial freedom.
 - o Spiritual freedom.
- Demonstrate significant growth in understanding the needs of others through reflections submitted on a regular basis (blog, journal, etc.).
- Present a demonstration of their completed service-project that includes the following elements:
 - o Understanding of basic needs for water.
 - o Identification of issue(s) that needed addressing.
 - o Summary of personal reflections (blog, journal, etc.) that include understanding of water-related issues prior to beginning the service-learning unit, during the service-learning unit, and after the completion of the service-learning unit.
 - o Summary of service-learning project, including:
 - How the project was selected.
 - How the project was organized.
 - How the project was implemented.
 - People/people groups helped.
 - End result of the project (or method of continuing the project).

Essential Question and Unit Summary

Essential question:

How does water bring freedom to the world?

Unit summary:

OVERARCHING THEME that students will learn: **Water is a key to freedom.**

Students will learn facts about water consumption, availability, symbolism, cleanliness, etc. (health/science,

reading/language, math).

Students will read and write about water issues (language arts/English). Through exposure to information about the need for water world-wide, students will plan and develop their own service project to provide safe and adequate water to people somewhere in the world.

Students will complete pre- and post-project worksheet to assess

knowledge, thinking, and growth. Students will journal about the entire service-learning project. Each project or group will present a culminating presentation in a public setting, demonstrating their understanding of how water is a foundational building block for freedom.



Child drinking in Rwanda 1

Unit Questions

Essential question:

How does water bring freedom to the world?

Unit Questions:

- How does water bring personal/physical freedom? What are the personal/physical needs for water?
- How does water give social freedom? What are the social needs for water?
- How can water bring financial freedom? What are the financial needs for water?
- What are the symbols of spiritual freedom related to water? What are the spiritual needs for water?
- What part do we play in bringing freedom to the world? What is our role as Christians in providing for the world's needs?



Drinking water source in Rwanda 1

Content Questions

Content questions and possible content connections:

- How do we calculate water needs? (math)
- How clean is clean when it comes to water? To bathe in? To drink? (science/health)
- How do we determine if water is potable? (science/health)
- What are ways to deliver clean water to people in third world countries? In our neighborhoods? (math, social studies/geography)
- Who determines who owns water in the US and elsewhere? (government/social studies)
- Is water a renewable resource? Is the earth in danger of running out of water? (science, math, government)
- How do I communicate properly, efficiently, and passionately to be able to affect change in the world? (*language arts – primary content area: speech, grammar and mechanics, writing [persuasive writing, research writing, etc.], communication [letter writing, email, blogs/reflection]; technology [Publishing software, PowerPoint, word processing, graphic editing; video editing])
- What does Jesus tell us is our responsibility to the world? (Bible/faith integration)



Introduction to Service Learning

(For students; to be presented prior to the first lesson)

Ask any or all of the following questions:

- Who can define “community service”?
- How many of you have participated in some sort of community service before? (Ask for a show of hands.)
- What did you do for your community service? (Ask for volunteers to respond.)
- Who benefited from your community service? (Ask for volunteers to respond.)
- Who organized the community service? (Ask for volunteers to respond.)
- How did you feel while you were doing the community service? (Ask for one or two responses.)
- How did you feel after you did the community service? (Ask for one or two responses.)
- How do you think the people who benefited from the community service felt when you were done? (Ask for one or two responses.)

Now, let’s switch gears a moment.

- What was your favorite assignment or project in school? (Ask for volunteers to respond; focus in on responses that have to do with hands-on activities or projects.)
- What did you like most about the assignment or project? (Ask for one or two responses, focused on hands-on activities.)
- What did you learn from the assignment or project? (Look for lasting knowledge gained; discuss or ask *why* the knowledge “stuck.”)

What if we could combine helping other people – what we know of as “community service” – with school-work? For instance, what if we could have a *reason* to learn to write well? What if we had a real audience to write to? What if what we wrote were read by policy makers or leaders or celebrities? What if we could use what we *learned* in school to make a big difference in our community, or even in the world?

Service-learning is a way of bringing service and learning together. Throughout the next ____ weeks, we will be learning various pieces of knowledge and skills and then applying them in creating and implementing a project that will benefit people in our community, our town, our state, our country, or our world. You will be able to design your own project after learning facts, identifying needs, searching for available resources, and finding a way *you* can make a difference. Throughout this entire process, you will reflect on what you are doing, what you are learning, and how you are feeling (how this project is affecting you and the people you are hoping to serve). When we are done, we will present our service-learning projects in some meaningful way using technical and language skills, some gained through the course of this project and some you already have. The end result will be this: *YOU* will make a difference in the world, while learning important skills and concepts for your education and your life!

Lesson 1: Introduction (Connect, Attend)

Suggested time frame: 1 class period

Materials needed: student journals or access to student blog for this project.

Before saying ANYTHING about the subject of water, complete this activity with your students. This is a “connect” activity from the 4MAT wheel and is designed to help answer the “Why” questions that students often have about what they have to learn. This will help motivate and develop meaning for the subject matter that is to follow.

Freedom:

Select one student from the class to come to the front of the room. Suggestion: select a girl of slight build. Tell her to walk around the room for 30 seconds and choose one item in the room she considers to be the most valuable. After this is done, call her back to the front of the room.

When the 30 seconds are up and the student has returned to the front of the room, take the item of value from her and place it on a table, desk, or on the floor approximately six (6) feet from where the student is standing. Then, call six more students to the front of the room (based on those whose birthdays are closest to today’s date, or based on whatever method you desire). Ask the six students to form a tight circle around the first student and lock arms, forming a barrier so the first student cannot easily escape. Tell the six students to act as a wall to keep the first student “in.”

Tell the first student she can now retrieve her valuable item. She must stay in a standing position, but in order for her to get her valuable item, she should attempt to break through the barrier erected to keep her inside. Make sure the six students do their best to constrain her. After about 30-60 seconds of this exercise, tell all the students to go back to their seats.

Discussion questions:

- (Direct these question to the student in the middle of the circle) Which scenario did you prefer: The one where you were free to walk around the room and retrieve your valuable possession, or the one where you were not able to reach something that was important to you? How did you feel trying to get out of the circle? What would you be willing to do in order to retrieve your valuable item?
- (Direct these questions to the whole class): If you were inside the circle, what item would be outside the circle that you would be willing to sacrifice in order to get? (Ask for multiple responses.)
- What would you be willing to sacrifice?

Freedom of Water

- What various kinds of “freedom” can you think of? (Ask for multiple answers.) Possible answers include:



- Freedom of speech
- Freedom of religion
- Political freedom
- Freedom of the press
- Freedom of assembly
- Freedom of association
- Freedom to bear arms
- Freedom of education
- Freedom of movement
- Intellectual freedom

- What kind of freedom was being denied in our illustration? (Ask for multiple answers.) How was that freedom denied? (Follow-up question.)

Journal question:

Have students take out a piece of paper, or a journal if they have one, and ask them to write for five minutes about the following questions:

- What is the most valuable freedom to you?
- Why?
- What would you do in order to get or keep this freedom?
- What would you give up or sacrifice in order to get or keep this freedom?

At the end of five minutes, ask the students to get into groups of three (or assign them to groups of three). Give them these instructions:

- Discuss the freedoms you each felt were most valuable. Choose one you can all agree on (3-4 minutes).
- Draw a slip of paper out of a hat to determine which way your group will demonstrate their freedom (see list below for what to put on the slips of paper). Create a demonstration of your chosen freedom based on your selected method (3-4 minutes).
 - Pantomime
 - Skit (with words)
 - Drawing
 - Rap
 - Song
- Demonstrate your freedom to the rest of the class (1-2 minutes/group).

Have the other groups/rest of the class guess which freedom was being demonstrated.

Lesson 2: Web Authenticity (Image, Define)

Suggested time frame: 1 class period

Skill: Information literacy

Materials needed: Student Worksheet 1; computer/laptop; projector and screen OR SmartBoard; Internet connection; student hand-held devices or laptops connected to the Internet (optional); student journals or access to student blog site for this project



During our previous class period, we talked about various freedoms and what we could sacrifice to get or keep those freedoms. For the next ____ (insert number of weeks you plan to use this unit) weeks, we will be researching, writing about, and creating a project around something that gives us all freedom: Water. Can anyone think of a way that water gives us freedom? (Ask for responses.) By the end of this unit, you will be able to speak intelligently about many ways in which water brings freedom, and the lack of water brings the opposite of freedom: bondage.

Before we begin this service-learning journey, I want to get a sense of what you know and believe now. (Pass out "Student Worksheet" found on the next two pages.) Let's take the next few minutes to fill out the **first blank column** on both pages. (Give students 5-10 minutes to complete the worksheet.)

Please put your completed worksheet in your binder for this project.

If your school or classroom policy allows phones/i-pads/computers in the classroom:

With your smart phone/i-pad/computer, do a search on the keyword "water."

- How many hits did you get?
- What is the main idea of the hits on the first page? Do any of these sites appear to answer any of the questions on your worksheet?
- How can you refine your search string to be more effective?

Think about the questions you just answered in the worksheet. What is something you want to know about water? Which question would you most like to see answered?

- In a Google search, ask the question you want to know. Put a question mark at the end of your question.
- Go to www.ask.com. Ask your question there.
- What search engine seemed to give you better results?
- How do you judge the effectiveness of your search?

Click on the link you feel will give you the best, most accurate answer to your question. Read at least the first paragraph on the page you land on when clicking on the link. (Give students a minute to complete this task.)

- What did you learn? (Ask for responses.)
- Did the site answer your question?
- Do you think the site is reputable? How can you tell?

INSTRUCTION: Web authenticity, validity, etc.:

- Look for author's name; can you find it anywhere on your site?
- Is the site sponsored by an academic entity? (university, college, etc.)
- Look for "last update"; has the site been updated recently?
- Is the site trying to sell you something?
- Are there cited sources with links?

WATCH short YouTube videos about web evaluation using a projector or SmartBoard. (Watch the first three OR **one** of the last two.)

- <http://www.youtube.com/watch?v=Rdnabvh8WsM> Web Evaluation: Authority
- http://www.youtube.com/watch?v=p6Z8D_vH6B4&feature=relmfu Web Evaluation: Accuracy
- <http://www.youtube.com/watch?v=PYk7R3mICok> Web Evaluation: Timeliness
- <http://www.youtube.com/watch?NR=1&feature=endscreen&v=ELclOOxzt3U> Evaluating web resources (includes
- <http://www.youtube.com/watch?v=dKVL1ehDQB0&feature=related> Cartoon video about evaluating web sources; this one would likely appeal to the students!

Now, let's use the information we just learned to evaluate this web site: www.dhmo.org (Have students go to this site on their mobile devices or project the site onto the screen through your projector.) Have students review the site, click on a few of the links, etc.

- What should we look at to see if this is a valid and credible web site? (Ask for responses.)
 - o Author?
 - o Links?
 - o Errors?
 - o Updated?
 - o Selling something?
 - o Other?
- Does this web site make any significant claims? Is the website warning you about something? Do the claims appear to be true? Does this look reasonable?

Does anyone know what "DHMO" stands for?

- Di-hydrogen-mon-oxide
 - o Di – two;
 - o hydrogen – hydrogen molecule
 - o Mon – for "mono," one

Freedom of Water

- Oxide – oxygen molecule
- Put that all together, and what do you have?
 - Two hydrogen and one oxygen, or H₂O: WATER!
- Were the claims true? Look at them again:
 - Is DHMO found in baby food?
 - Can inhaling DHMO kill you?
 - Is DHMO implicated in brake failures?
 - Is DHMO responsible for drownings?
 - (Ask for responses for more claims the DHMO web site gave about the evils of water.)

Something might be factual, but misleading.

Now, for the rest of the class period, do some effective web searching to see if you can find the answer to your most pressing question from the worksheet you completed. Write down or bookmark the best sites that answer your question, at least in part. Come to class tomorrow prepared to share what you learned. Here is what you will need to share:

- The question you tried to answer from your web search.
- The source(s) you found that dealt with your question.
- The way you determined if each source was reliable and accurate.
- The answer or partial answer for your question.

As you search for your answer, remember what you have learned from today's lesson on web authenticity. This worksheet will help you remember what to look for, and will also remind you about what you will need to present for our next class session. The graphics on Worksheet 2 will remind you about our DHMO site and why it is important to verify information found online!

Last five (5) minutes of class: Students should journal/blog about this class period. Journal prompt: *Why is it important to verify information found online? How has inaccurate online information affected our society? How has inaccurate online information affected your life? How could misleading or inaccurate information affect someone's freedom?*

Additional resource:

<http://www.uhv.edu/ac/style/pdf/findinternet.pdf> (excellent PDF about evaluating web resources; also references in lesson 15)

If you do not have access to the Internet, to a computer with a projector, or to a SmartBoard, please see if you can use the school computer lab for this class session, or request the required technology be supplied in order to complete this lesson.

Student Worksheet 1 (Beginning Assessment)

Question (BIG important questions)	What I know (before I started)	What I learned (during the project)	Where I learned it (sources)	What I now believe
How does water bring personal/ physical freedom? What are the personal/ physical needs for water?				
How does water give social freedom? What are the social needs for water?				
How can water bring financial freedom? What are the financial needs for water?				
What are the symbols of spiritual freedom related to water? What are the spiritual needs for water?				
What part do we play in bringing freedom to the world? What is our role as Christians in providing for the world's needs?				

Student Worksheet 1, cont.

Question (Questions having to do with knowledge)	What I know (before I started)	What I learned (during the project)	Where I learned it (sources)	What I am now going to do about these questions
How do we calculate water needs?				
How clean is clean when it comes to water? To bathe in? To drink?				
How do we determine if water is potable?				
What are ways to deliver clean water to people in third world countries? In our neighborhoods?				
Who determines who owns water in the US and elsewhere?				
Is water a renewable resource? Is the earth in danger of running out of water?				
What does Jesus tell us is our responsibility to the world?				

Student Worksheet 2: Web search

Web authenticity/validity:

- Look for the author's name; can you find it anywhere on your site?
- Is the site sponsored by an academic entity? (university, college, etc.)
- Look for "last update"; has the site been updated recently?
- Is the site trying to sell you something?
- Are there cited sources with links?
- Does this web site make any significant claims? Is the website warning you about something? Do the claims appear to be true? Does this look reasonable?



Class presentation:

- The question from Worksheet 1 that you tried to answer from your web search.

- The source(s) you found that dealt with your question.

- The way you determined if each source was reliable and accurate.

- The answer or partial answer for your question.



Lesson 3: Presentation (Inform)

Suggested time frame: 1 class period

Skill: Speech

Materials needed: Copy of Student Worksheet 2 for teacher reference; student journals or access to student blog site for this project.

Instructions:

During the last class period, you did some online research about water. Today I want each of you to share what you learned. Use Worksheet 2 as your notes for your presentation, and include your answers to these questions in your informal speech:

1. The question you tried to answer from your web search.
2. The source(s) you found that dealt with your question.
3. The way you determined if each source was reliable and accurate.
4. The answer or partial answer for your question.

Each student should present his/her findings to the class using the above format. Prompt students to complete each item on the list above. Ask one student to be the scribe and write down the list of questions and a summary of the answer on the board so everyone can see them.

Discuss any questions that arise during the students' presentations. Be prepared to do additional research during class to verify or correct any information presented.

Last five (5) minutes of class: Students should journal/blog about this class period.

Journal prompt: *What was the single most significant thing you learned today? Why was it significant? How will knowing this new information change what you DO?*

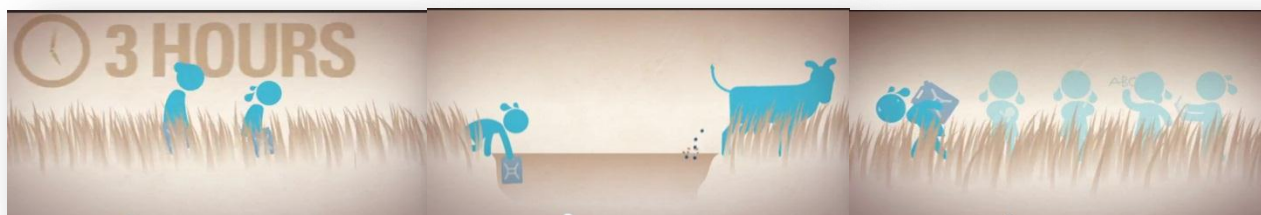
DO something!

Lesson 4: Water Accessibility Issues (Inform)

Suggested time frame: 1 class period

Skill: listening, viewing

Materials needed: computer/laptop; Internet connection; projector; screen; completed Student Worksheet 1 (students should have their worksheets with them); student hand-held devices or laptops connected to the Internet (optional); “jerry can” or equivalent, full of 40 lbs. of water; student journals or access to student blog site for this project



How does the accessibility of water bring freedom?

Watch this video clip: <http://www.charitywater.org/whywater/>

Discuss.

- Talk about children, especially girls, walking to get water in Africa.
- What freedoms are being taken away by this necessity to get water?
- What other freedoms are in question based on this video clip?
 - o Freedom from disease
 - o Others?

Ask students to refer to Student Worksheet 1.

- What questions on Worksheet 1 were addressed in this video clip? Does this clip completely or partially answer any of the questions?

Watch the clip a second time and see what additional thoughts and concepts students pick up. Have them listen specifically for the word “freedom” in the clip.

Discuss.

- After reviewing the questions on Student Worksheet 1 and then watching the video again, did you pick up anything else that began to answer any of the questions on the worksheet? Which questions? What are the answers or partial answers you are finding?
- Is any of what you have learned new information for you or part of a new thought process for you?

Read the rest of the web page, either individually on i-pads/i-phones/laptops, or as a group by projecting the page onto the screen.

Freedom of Water

Discuss:

- Sanitation
- “Women and Children”
- Economics
- The “Your Village Gets a Well” scenario

Ask students to give suggestions about how to create a simulation to help them understand the reality of carrying 40 lbs. of water for three hours each day. Discuss for no more than three minutes. If no agreement can be reached, suggest this option:

- One student will carry the 40 lb. water can/bucket to the next class and will stand in the back of the class holding the water bucket throughout the duration of the class. He/she will then pass the water bucket to another student to do the same thing for the next class period – as far as possible having each student stand throughout the duration of the class holding the water can/bucket. (If this is not feasible, students can take turns holding the water can/bucket during your next several class periods, alternating every 10 -30 minutes until all students have had a chance to carry and/or hold the water can/bucket for an extended amount of time.)

Last five (5) minutes of class: Students should journal/blog about this class period. Journal prompt: *How would your life be different if you were born in a developing country in Africa? What is your responsibility as a Christian to people who happened to be born in an underdeveloped area of the world and who don't have access to basic necessities of life?*



Lesson 5: Water Accessibility Issues, Cont. (Inform, Practice)

Suggested time frame: 1 class period

Skill: Writing, critical thinking skills, art, math (conversion/unit multiplication), health (water needs)

Materials needed: paper/pen or computer/laptop; “jerry can” or equivalent, full of 40 lbs. of water; projector and Internet connection to do a group activity re: water use; rubric; student journals or access to student blog site for this project (needed for every lesson)



Introduction:

What do you use water for each day? (Ask for responses: cooking, baking, drinking, washing, personal hygiene, etc.) How much water do you think you use each day? (Ask for responses.) Let’s find out how much water we really use. (Go to [Water Footprint Calculator](#) and input student responses. Make note of the total.)

How much water do you think is needed for one person for optimal health? Let’s see if we can find out. (Do a search, projected on the screen, for how much water is needed/person/day, or challenge students to search on their cell phones. “[40 Shocking Facts about Water](#)” facts # 7 and 8 have pertinent info. See also “[Resources](#)” page for links. Make note of the answers found.) Based on what we learned in the “Charity Water” video we watched, how many trips to the water source/person would be required to provide enough water for basic needs for an individual? (Do the required math to find out. Convert to gallons as needed. You may need to measure how much water will fit into the “jerry can” you have for the “connect” activity to find out how much water can be carried in one trip.)

Discuss: How would what we just learned about water availability in today’s lesson, as well as the Charity Water video, impact your life if you had to personally transport the water you needed each day – even for a short distance?

“Connect” Activity: Have one student be required to walk around the room with the water can/bucket during the whole class, rendering him/her incapable of working on the assignment. (You may want to pre-arrange the selection of the student and let him/her know how you will accommodate his/her assignment due date because of his/her inability to have class time to work on the assignment.) During the last 10 minutes, prior to the journal time, ask the class to discuss how this impacted the student. Is this fair?

Writing assignment (to be begun in class and submitted for peer review during the next class session):

Write a one page essay describing what you have learned about the freedoms which are restricted when clean water is not readily available in developing nations. Include this page in your journal/blog as today's journal entry.



Rubric (to be handed out or distributed digitally prior to beginning the writing assignment) follows on the next page.

Alternate assignment OR differentiated instruction assignment:

Students may draw or otherwise illustrate:

- The freedoms they would not have if water was not available to them
- The freedoms children in third world/developing countries do not have because adequate, clean water is not available to them
- The illnesses caused by lack of adequate, clean water

Drawings could take the form of political cartoons, abstract illustrations of freedoms lost, etc.

Writing Rubric

Writing Rubric

Writer's Name: _____ Scored by: _____

	Exemplary 4	Accomplished 3	Developing 2	Beginning 1	Score
Organization	My writing has a compelling opening, an informative middle, and a satisfying conclusion. Each paragraph is focused on the topic.	My writing has a beginning, middle, and end. Most paragraphs are focused on the topic	My organization is rough but workable. I may sometimes get off topic.	My writing is aimless and disorganized.	
Voice and tone	It sounds like I care about my argument. I tell how I think and feel about it.	My tone is OK, but my paper could have been written by anyone. I need to tell how I think and feel.	My writing is bland or pretentious. There is either no hint of a real person in it, or it sounds like I'm faking it.	My writing is too formal or informal. It sounds like I don't like the topic of the essay.	
Word choice	The words that I use are striking but natural, varied, and vivid.	I make some fine and some routine word choices.	The words that I use are often dull or uninspired or sound like I'm trying too hard to impress.	I use the same words over and over. Some words may be confusing.	
Sentence fluency	My sentences are clear, complete, and of varying lengths.	I have well-constructed sentences. My essay marches along but doesn't dance.	My sentences are often awkward, run-ons, or fragments.	Many run-on sentences and sentence fragments make my essay hard to read.	
Conventions	I use correct grammar, punctuation, and spelling.	I have a few errors to fix, but I generally use correct conventions.	I have enough errors in my essay to distract a reader.	Numerous errors make my paper hard to read.	
Total	1-5 Needs a complete overhaul 6-10: Significant help needed 11-15: Getting there! 16-20 Close to perfection				

Lesson 6: Peer Review (Practice, Refine)

Suggested time frame: 1 class period

Skill: Writing (editing, proofreading)

Materials needed: writing rubric, 2-3 per student.

A writing rubric should be completed by each writer (student) and two different classmates (if possible, depending on your classroom size).

Pass out two-three rubrics to each student. Ask each student to complete the rubric for his/her own paper first. Then, gather all papers and distribute them to different students to review and complete the rubric for their classmates' papers. If time allows, gather the papers again and hand them out to different students to review.



Journal/blog last 5 minutes:

Journal prompt: *Did you learn anything new from reading your peer's paper(s)? What did you learn? Did you agree with everything you read? Was there something you disagreed with? Write for five minutes about what you learned from reviewing one or more peer's papers.*

Lesson 7: Bottled Water Issues (Inform)

Suggested time frame: 1 class period

Skill: Critical thinking

Materials needed: 3-4 varieties of bottled water; small paper cups (Dixie size if possible); marker; small slips of paper; Bottled water survey, 1/student; scoring sheets, 1/student (if you use more than 3 varieties of bottled water, simply add rows to the table for the scoring sheets by putting your cursor in the last box in the bottom right and hitting "enter"); projector and screen; computer/laptop with Internet connection

Preparation: Before anyone arrives in the classroom, prepare the taste test as suggested in the photo below. Pour one brand of bottled water in one section of cups, a second brand of bottled water in another section of cups, a third brand of bottled water in another section of cups, and tap water into the last section of cups. Suggestion: Do not put the tap water into the last section; use section 2 or 3 for tap water.



Introduction:

The first thing we want to do today is to find out our classes' habits about bottled water. Let's take a moment and fill out a brief survey that will tell me your thoughts about bottled water. (Distribute [Bottled Water Survey](#) OR have students go online and complete a survey

using one of the many free survey tools available. Some of these tools allow students to text their responses using their cell phones. See [Resources](#) page for a list of survey/polling sites.)

(Collect surveys. Briefly analyze surveys with the class and give the results.)

The next thing we are going to do is to take a taste test. First, pick up a scoring sheet. Then, taste one sample from each section. As you taste the samples, score them on the scoring sheet according to the directions.

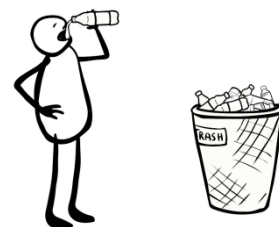
(Collect scoring sheets when everyone is done; ask a small group of students to analyze the results and announce the choices in order. Tap water will likely score near the middle of the choices.)

- Were you surprised with the results of our taste test?
- What does this tell you about bottled water? About tap water?

To learn more about the bottled water industry, we're going to watch two short videos. Please take notes on what you learn about bottled water in these videos.

Videos:

- <http://www.storyofstuff.org/movies-all/story-of-bottled-water/>
- <http://www.youtube.com/watch?v=3QBZac3MSY>



Discussion:

- After watching these videos, what do you think about bottled water?
- How has your opinion changed, if it has?



No one wants to be taken for a fool. When we first looked at the DHMO.org site and read some of the claims about the dangers of DHMO, many of us thought we really should DO something about this dangerous chemical. Then, when we learned the whole site is just a joke, how did we feel? Is it possible the bottled water industry has been fooling people for years in order to make a profit?

For the next two class periods, we will watch a documentary about the larger issues surrounding water in our world, including but not limited to the bottled water issue. After we complete this video, we will begin working on a persuasive paper about the bottled water industry. (If there is time, you might want to watch the "trailer" for the movie "FLOW," found here: <http://www.youtube.com/watch?v=LGd9D4J0lag>.)

Journal/blog last 5 minutes:

Journal prompt: *What should be done about the bottled water problem? What should YOU do?*

Bottled Water Survey

1. How often do you drink bottled water?

More than 1x/day	Once a day	Twice a week	Once a week	Once a month	Rarely	Never

2. Why do you drink bottled water? (Select all that apply.)

Bottled water is cleaner than tap water	Bottled water tastes better than tap water	Bottled water is more convenient than tap water	Bottled water comes from mountain springs	Bottled water smells better than tap water	Bottled water is healthier than tap water

3. How much do you pay for bottled water?

\$0.50 - .99/bottle	\$1 – 1.49/bottle	\$1.50 / 1.99/bottle	\$2.00 – 2.49/bottle	More than \$2.50/bottle



Water Taste Test Scoring Sheet

WATER TASTE TEST SCORING SHEET

Instructions:

As you taste each sample, record your opinion. Grade each water sample in each area on a scale of 1 to 5, with 1 being the worst score you can give, and 5 being the best score you can give. Total each line. Circle the number of the water that is your favorite.

Sample #	Flavor	Odor	Aftertaste	Total
1				
2				
3				
4				

WATER TASTE TEST SCORING SHEET

Instructions:

As you taste each sample, record your opinion. Grade each water sample in each area on a scale of 1 to 5, with 1 being the worst score you can give, and 5 being the best score you can give. Total each line. Circle the number of the water that is your favorite.

Sample #	Flavor	Odor	Aftertaste	Total
1				
2				
3				
4				

Lesson 8: FLOW video (Inform)

Suggested time frame: 2 class periods (video is 1 hour, 23 minutes)

Skill: Viewing, critical thinking, writing/reflecting

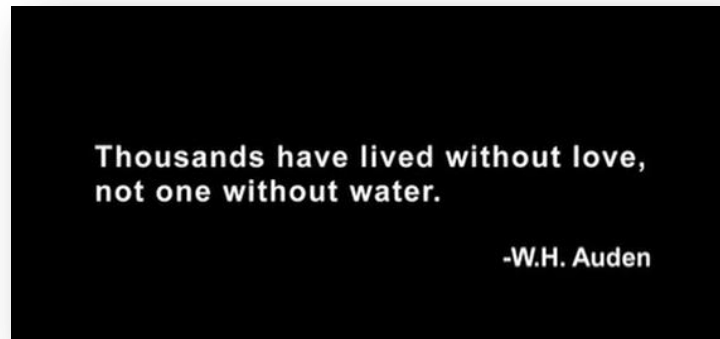
Materials needed: computer/laptop with Internet connection; projector and screen

Watch the movie "FLOW." Ask students to take notes during the movie.

Link to the movie:

<http://www.youtube.com/watch?v=t3RL0vbWZLg>

Stop the movie five minutes before the end of each class period so students can journal/blog. If there is any additional time, have a group discussion about the video each day before the journal time.



Journal/blog last 5 minutes:

Journal prompt: *What was the most interesting thing you learned in today's section of the video? What was the most disturbing thing you learned? Why? What people or entities should be held accountable for the problems you saw identified in the video?*

Lesson 9: Make a Difference (Extend)

Suggested time frame: 2 class periods

Skill: Persuasive essay writing

Materials needed: computers/laptops or pen and paper; Internet and/or library for research

Introduction:

Before we begin our writing assignment about bottled water, let's take some time to talk about what we have learned so far. First, let's take out our Student Worksheet 1 and see what we can add to it. Have you answered any of the questions on the worksheet with anything you have learned? What can you add to the "What I learned" column? What can you add to the "Where I learned it" column? Take some time right now to add information to your worksheet.

DISCUSS the videos and the information:

- What have you added to your knowledge base so far? (Ask for several responses.)
- How has this information changed your thinking? (Ask for several responses.)

Today we are going to begin a persuasive essay on the subject of bottled water. When we are finished, we will submit our essays to the local newspaper to be considered as a guest editorial or for some other column. (If the school has a website or newsletter, students' persuasive essays could also be posted on the website or printed in the newsletter. Try to find an outlet for the papers that will get more people to read them. This will facilitate greater possibilities for CHANGE once people see what the students have discovered, and it will give the students a greater reason for excellence in their writing.)

What is the purpose of a persuasive essay? What elements do you think should be included in a persuasive essay? (Give instruction in writing a persuasive essay. Included here are two excellent teaching aides to supplement your instruction about how to write a persuasive essay. Web sources are noted for each resource.)

Direct students to an online or print form of the rubric you will use to score their persuasive essay. Give clear parameters for the paper (number of pages, font size, number of sources required, etc.). Include these parameters on the rubric as much as possible. A sample "Persuasive Essay" rubric is included on the following page.

Persuasive Essay Rubric

Criteria	Gradations of Quality			
	4	3	2	1
The claim	I make a claim and explain why it is controversial.	I make a claim but don't explain why it is controversial.	My claim is buried, confused, and/or unclear.	I don't say what my argument or claim is.
Reasons in support of the claim	I give clear and accurate reasons in support of my claim.	I give reasons in support of my claim, but I overlook important reasons.	I give 1 or 2 weak reasons that don't support my claim and/or irrelevant or confusing reasons.	I don't give reasons in support of my claim.
Reasons against the claim	I discuss the reasons against my claim and explain why it is valid anyway.	I discuss the reasons against my claim, but neglect some, or don't explain why the claim still stands.	I say there are reasons against the claim, but I don't discuss them.	I don't acknowledge or discuss the reasons against my claim.
Organization	My writing has a compelling opening, an informative middle, and a satisfying conclusion.	My writing has a beginning, a middle, and an end.	My organization is rough, but workable. I may sometimes get off topic.	My writing is aimless and disorganized.
Voice and tone	It sounds like I care about my argument. I tell how I think and feel about it.	My tone is OK, but my paper could have been written by anyone. I need to tell how I think and feel.	My writing is bland or pretentious. There is either no hint of a real person in it, or it sounds like I'm faking it.	My writing is too formal or informal. It sounds like I don't like the topic of the essay.
Word choice	The words that I use are striking but natural, varied, and vivid.	I make some fine and some routine word choices.	The words I use are often dull or uninspired, or sound like I'm trying too hard to impress.	I use the same words over and over. Some words may be confusing.
Sentence fluency	My sentences are clear, complete, and of varying lengths.	I have well-constructed sentences. My essay marches along but doesn't dance.	My sentences are often awkward, run-ons, or fragments.	Many run-on sentences and sentence fragments make my essay hard to read.
Conventions	I use correct grammar, punctuation, and spelling.	I have a few errors to fix, but I generally use correct conventions.	I have enough errors in my essay to distract a reader.	Numerous errors make my paper hard to read.

Persuasive/Argument Papers



Persuasive/Argument Papers



This packet details the steps necessary to produce a persuasive/argument paper that may be required in various disciplines. **This packet is not intended to replace instructor guidelines** and should not be used in that manner. The packet's intended use is as a supplement to classroom instruction. Therefore, **it contains only general information that must be tailored to fit specific guidelines as required by your discipline and by your instructor.**

This packet is subdivided into seven sections:

- I. Purpose
- II. Elements of Persuasive/Argument Papers
- III. Prewriting Strategies for Persuasive/Argument Papers
- IV. General Organization of Persuasive/Argument Papers
- V. Key Words and Transitional Phrases for Persuasive/Argument Papers
- VI. Persuasive/Argument Paper Checklist
- VII. Resources

φ Purpose φ

The purpose of a persuasive or argumentation research paper is to get the reader to side with you on a particular topic for the reasons that you present. The information presented in this packet will serve as a guide to understanding the elements of a persuasive/ argument paper and to formatting the paper, as well as offer prewriting strategies and a checklist to verify that the requirements have been met.

There are specific elements for every mode of writing. One thing to keep in mind is that no matter what mode of writing you choose, all writing should meet the guidelines set by your



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instructor. For the purpose of this explanation, the academic criteria for persuasive/ argument essays have been integrated into this handout.

ϕ Elements of Persuasive/Argument Papers ϕ

Persuasive and argument essays contain some common elements.

They must

Clarify the relevant values of the topic so that the audience can see the position of the paper.

Remember that there are many parts of any argument. The topic of the paper should be specific to the issue that you plan to address.

Present facts that support the side of the argument that you plan to present and to persuade for or against.

Facts can consist of statistics, researched information, and other materials that are found in scholarly journals, government publications and other academic or professional fields.

Remember to cite all information that is not your own original idea. The Academic Center has copies of both the [APA and MLA Quick Guides](#) available online and in the Center.

Sequence or prioritize the facts in a manner that builds the argument in the most influential way.

The presentation of facts for the argument should follow the same organization presented when clarifying the relevant values. The first issue stated in the thesis should be the first topic approached in the persuasion/ argument section of the paper and so on.

Form and state conclusions.

The conclusion should never be thought of as just a summary of the essay. If you answer the question, "So, why am I writing this paper to this audience?" you can create a stronger conclusion that does what it was intended to do, persuade.

ϕ Prewriting Strategies for Persuasive/Argument Papers ϕ

As with any writing project, you should take some time to organize your thoughts. Here are a few prewriting strategies that focus specifically on writing persuasive/ argument essays.

Choose a side of the argument that you feel most comfortable presenting.

While researching the facts, think of the questions posed for the assignment or the topics to investigate.

Analyze the source of information presented for value and reliability.

List the facts and opposing arguments on the topic that are most important for your audience.



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φ General Organization of Persuasive/Argument Papers φ

Introduction

The introduction should present the topic of your paper. In academic writing, the introduction most often begins with a general reference to the topic and narrows down to your thesis within four to six sentences. The thesis should be clear, concise, well stated and identifiable. In other words, the reader should have no question about what will be discussed within the paper.

Statement of the Case

The statement of case in the essay is the presentation of all pertinent information for your argument. In this section of the paper, at least one paragraph should be dedicated to each element of the argument.

Proposition statement

The proposition statement is used very much in the same way that a thesis statement is used. This statement should clearly define and detail the scope of the essay, but it should also be a debatable statement.

Ex: Hispanic county officials must show their support of bilingual education programs because . . .

Refutation

In the refutation section of the essay, you will have the opportunity to refute any claims made against your argument. It is imperative that you research your audience and their views that oppose the elements of your argument. This section will make your argument that much stronger if you can show that opposing ideas have been considered and disproved.

Conformation

During the conformation section of the essay, you will reinforce the elements of your argument that refute the opposition's argument. All three areas, the proposition statement, the refutation section, and the conformation section, should be parallel.

Digression (optional)

At this point in the essay, you may want to include some kind of anecdotal information. You could give information from a case study, or from a personal story that has been documented in a journal. Keep in mind that this information, like all information presented in the essay, should be factual and well documented.

Conclusion

You must remember that this is your last chance to state your case. Think of the conclusion as the summation in a court case; you have to be convincing.

φ Key Words and Transitional Phrases for Persuasive/Argument Papers φ

After you begin writing, you may run into difficulties when trying to make transitions between paragraphs or ideas. Included below are some useful transition words that will be helpful.



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accordingly, granted, of course, admittedly, however, on the one hand, because, in conclusion, on the other hand, but, indeed, since, certainly, in fact, therefore, consequently, in summary, thus, despite, moreover, to be sure, even so, nevertheless, truly

φ Persuasive/Argument Paper Checklist φ

This section of the packet is designed to help you evaluate your own organization and presentation. You can use this list to determine if you have met the requirements of format and structure of a persuasive/ argument essay.

Does my introduction present the issue I will discuss, and does it clearly state my position?

Is my topic debatable? Are there two sides to the topic?

Does my proposition statement clearly state my position on the issue?

Have I given enough information on the topic so that my audience can easily follow my argument?

Are there any definitions or ideas that need to be clarified for my audience?

Have I addressed the major arguments against my position?

Did I refute the arguments against my position using researched, well-documented facts and statistics?

φ Resources φ

Kirszner, L.G. & Mandell, S.R. (2002). *Writing first: Practice in context with readings*. Boston: Bedford/St. Martin's.

Paradigm Online Writing Assistant: <http://www.powa.org/argument/index.html>.

University of St. Thomas Study Guides & Strategies: Writing Persuasive Essays.
<http://www.iss.stthomas.edu/studyguides/wrtstr4.htm>.

*In traditional APA style, this section would be entitled "References" and would be listed on a separate page double-spaced. Due to space constraints in this packet, it has been formatted differently.

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Source: <http://www.uhv.edu/ac/wac/pdf/persuasive.pdf>

Persuasive Essay Instructional PowerPoint

Source: www.timetrek.org/6LA/Persus/CORC.ppt

This is a link to a PowerPoint (slides included below) that can be used as an instructional tool for the persuasive essay assignment. The PowerPoint, when downloaded onto your computer, includes effective animation and perhaps less-than-effective sound effects (which can be removed with the proper tech knowledge), so downloading and using the actual PowerPoint is recommended.

The image displays a grid of 12 PowerPoint slides, each titled "Elements of a Persuasive Essay". The slides are numbered 1 through 12 and contain various instructional content related to writing a persuasive essay. Slide 1 lists three main steps: 1. Begin with a clear statement of your opinion or position. 2. Support your position with organized and relevant information (evidence). 3. Anticipate and address the reader's concerns and counter-arguments. Slide 2 shows a fill-in-the-blank exercise: "Pro means you are something _____ FOR" and "Con means you are something _____ AGAINST". Slide 3 asks "Is this statement FOR or AGAINST the use of marijuana?" and provides a sample paragraph: "Sometimes I think it would be okay, but not always, if people really wanted to legalize marijuana, but you know, it is very harmful to your brain cells, even more than alcohol." Slide 4 asks "How about this?" and provides another sample paragraph: "For several logical reasons, I do not think marijuana should be legalized." Slide 5 asks "Which of the following most strongly supports the idea that marijuana should not be legalized?" and lists three options: A. Marijuana damages brain cells that can never be replaced. B. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs. C. Marijuana helps relieve severe pain that other pain medicines can't relieve. Slide 6 asks "A is probably a stronger argument against legalizing marijuana than B. This should be reorganized so that A comes after B." and lists two options: A. Marijuana damages brain cells that can never be replaced. B. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs. C. Marijuana helps relieve severe pain that other pain medicines can't relieve. Slide 7 asks "C is a weaker argument. A counter-argument is a statement that someone who opposes your position might make." and lists two options: A. Marijuana damages brain cells that can never be replaced. B. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs. C. Some argue that marijuana helps relieve severe pain that other pain medicines can't relieve. Slide 8 asks "Anticipate and address the reader's concerns and counter-arguments." and lists two options: A. Marijuana damages brain cells that can never be replaced. B. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs. C. Some argue that marijuana helps relieve severe pain that other pain medicines can't relieve. Slide 9 lists three main steps: 1. Begin with a clear statement of your opinion or position. 2. Support your position with organized and relevant evidence. 3. Anticipate and address reader's concerns and counter-arguments. Slide 10 lists three main steps: C - Clear opinion, for or against; O - Organized and Relevant facts; R - Relevant facts; C - Anticipate counter-arguments. Slide 11 lists three main steps: C - Clear opinion, for or against; O - Organized and Relevant facts; R - Relevant facts; C - Anticipate counter-arguments. Slide 12 lists three main steps: C - Clear opinion, for or against; O - Organized and Relevant facts; R - Relevant facts; C - Anticipate counter-arguments.



Elements of a Persuasive Essay

1. Begin with a clear statement of your opinion or position.
2. Support your position with organized and relevant information (evidence).
3. Anticipate and address the reader's concerns and counter-arguments.

Slide 1





Elements of a Persuasive Essay

1. Begin with a clear statement of opinion or position.

Pro means you are _____ **FOR**
something.

Con means you are _____ **AGAINST**
something.

Slide 2





Elements of a Persuasive Essay

Is this statement FOR or AGAINST
the use of marijuana?

Sometimes I think it would be okay, but
not always, if people really wanted to
legalize marijuana, but you know, it is
very harmful to your brain cells, even
more than alcohol.

FOR?

AGAINST?

Slide 3





Elements of a Persuasive Essay

How about this?

For several logical reasons, I do not think marijuana should be legalized.

FOR?

AGAINST?

Slide 4





Elements of a Persuasive Essay

2. Support your position with organized and relevant evidence.

Which of the following most strongly supports the idea that marijuana should not be legalized?

- A. Marijuana damages brain cells that can never be replaced.
- B. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs.
- C. Marijuana helps relieve severe pain that other pain medicines can't relieve.



Slide 5

Elements of a Persuasive Essay

A is probably a stronger argument against legalizing marijuana than B. This should be reorganized so that A comes after B.

A. Marijuana damages brain cells that can never be replaced.

B. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs.

C. Marijuana helps relieve severe pain that other pain medicines can't relieve.



Slide 6



C. is a counter -argument. A counter-argument is a statement that someone who opposes your position might make.

Restate these items so that the weaker argument comes first, then the stronger argument, then the counter-argument.

B. Marijuana damages brain cells that can never be replaced.

A. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs.

C. Some argue that marijuana helps relieve severe pain that other pain medicines can't relieve. However,



Slide 7



Elements of a Persuasive Essay

3. Anticipate and address the reader's concerns and counter-arguments.

The essay points are now organized with the strongest argument after the weaker argument, and also includes a counter-argument. In a moment you will recreate a color-coded T-chart with this information.

- A. Marijuana is addictive and often leads to the use of even stronger, more addictive drugs.
- B. Marijuana damages brain cells that can never be replaced.
- C. Some argue that marijuana helps relieve severe pain that other pain medicines can't relieve. However,



Slide 8



Elements of a Persuasive Essay

1. Begin with a clear statement of your opinion or position.

2. Support your position with organized and relevant evidence.

3. Anticipate and address reader's concerns and counter -arguments.

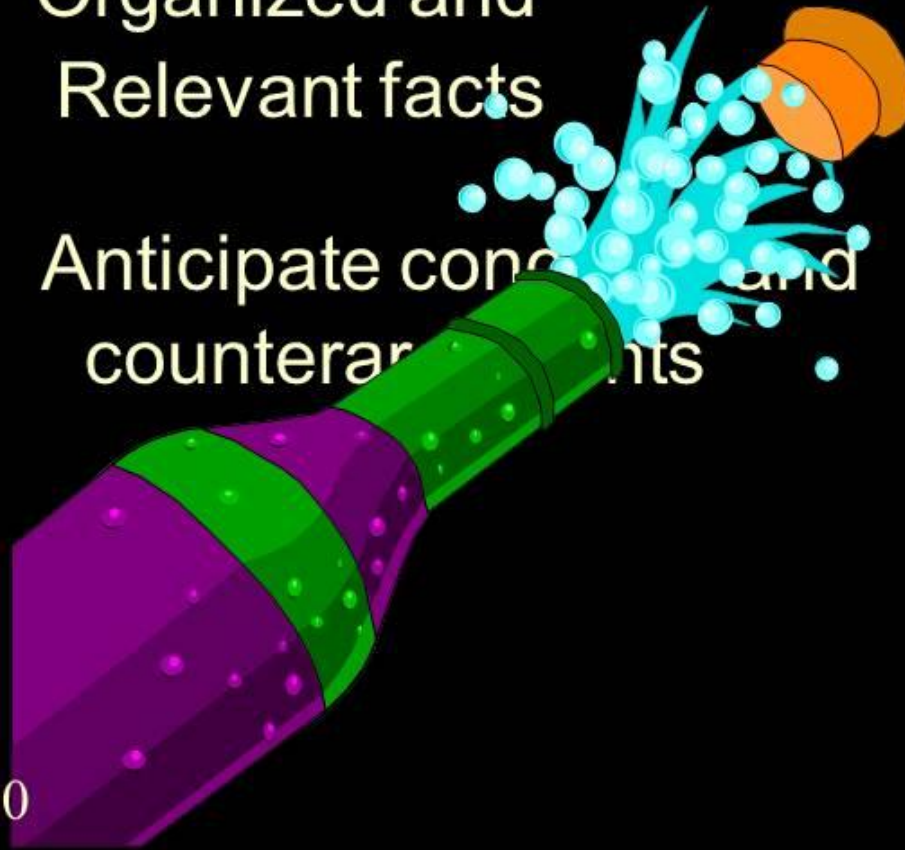
CORC IT!



Slide 9

Elements of a Persuasive Essay

- C** - Clear opinion; for or against
- O** - Organized and
- R** - Relevant facts
- C** - Anticipate concerns and counterarguments



Slide 10



Elements of a Persuasive Essay

C - T - For several logical reasons, I do not think marijuana should be legalized.

O - R - ★ Marijuana is addictive and often leads to the use of even stronger, more addictive drugs.

★ Marijuana damages brain cells that can never be replaced.

C - ★ Some argue that marijuana helps relieve severe pain that other pain medicines can't relieve. However,

- facts and examples to
- support each starred
- item
- this includes evidence,
- facts, statistics,
- expert opinions

Is a persuasive conclusion any different than an expository conclusion?

YES!



Slide 11



Elements of a Persuasive Essay

- A persuasive conclusion challenges the reader to make a decision or take a specific action.
- It also restates your viewpoint in a memorable way.

C- After reviewing these arguments against legalizing marijuana, how would you vote on an initiative to make marijuana legal?

Practice writing your own conclusion on the T-Chart, then share it with your group.

Slide 12

Lesson 9b: Persuade Through Art (Extend)

Suggested time frame: 1 class period

Skill: art; interpretation and application of information

Materials needed: Drawing paper and pens/markers/pencils OR computers/laptop with drawing software

This lesson can be added for any classroom and/or learner type, or may be used as differentiated instruction for tactile learners or other learners who need to “see” what they are being asked to interpret and assimilate.



Introduction:

What do you think it *looks like* to be fooled, to be duped into doing something that everyone else is doing, or to be told something is good for you when it really has no true benefit? Think about what you have learned about the bottled water industry. What have they led the public to believe about the benefits of their products? What do they want you to believe about recycling the empty water bottles? What have you learned is the truth? How are the bottled water companies treating citizens in other countries? Are they respecting their water rights? Are they taking advantage of the poor people of the earth?

It appears even Microsoft has bought into the fallacies the bottled water industry wants you to believe. Look at the picture on the left. What does it say about bottled water? Compare that to what you have learned.

Now, look at the picture on the right. What would that picture indicate? What do you know to be the truth about water bottles and recycling?

Take some time to think about how you could visually demonstrate what you now know to be true about bottled water and the bottled water industry. Draw or create a picture that demonstrates one of the fallacies of the bottled water industry, or one of the problems it is bringing to developing nations. Make this your OWN creation. Do not simply take a clip art or image from the web and draw a red “x” over it!



Lesson 10: Make a Difference Part II

Suggested time frame: 2 class periods

Skill: Formal letter writing

Materials needed: computers/laptop and printer or pen and paper; Internet to research addresses; school letterhead; envelopes; stamps.

Letter Writing

Introduction:

- How could you influence the greatest number of people to change their thinking and actions regarding bottled water?
- If you could get just ONE person to change their thinking and then their actions about bottled water, what one person do you think you would choose to influence? (Ask for several responses.)
- Why would you choose this person?
- How would you access this person?

Sample Business Letter

Use correct format.
Even if you are using email, you should write a formal business letter introducing yourself and asking for help. Remember to always use a gender-neutral term for address, unless you know the gender of the person you're writing.

March 1, 2002

Municipal Water Service
1234 First Street
Anywhere, MD 34567

Dear Sir or Madame:

I am a student at Aldo Leopold High School in Maryland. We are doing a research project on how to clean up our local watershed. Could you suggest a website where I can find information about water quality in our state?

Thank you for taking the time to respond to this letter.

Sincerely,
Jane Doe
Jane Doe
jane@email.com

Be specific.
Give examples of topics you are researching or how you are going to use the information. The more specific you can be about what you need, the more likely you are to get a useful answer.

Be polite.
The nicer you are, the more likely someone is to help you.

Include your contact information.
If you want to get a response, you must tell them where to send the information.

Today we are going to write a formal letter, using correct conventions of formal letter writing, to someone important who we think could make a difference in how our culture views drinking bottled water. This person could be one of the celebrities who advertise for bottled water. This person could be the president's wife, or the president himself. When we have completed and edited our letters, we will research the correct address of the person to whom we have written and then mail our letters. If we receive any response to our letters, we will report this response back to the class.

Our letters should be direct and to the point, but should include specific information we have learned in our unit about the harmful effects of the bottled water industry. We should appeal to our target audience to do something about this issue, believing that he/she has the power to make a difference in how other people think and/or act.

(Students should write the letter during class, and if there is time, exchange letters for a peer review. First drafts should be edited carefully before printing a final draft, putting it in an envelope, and mailing it to the intended recipient. Use the Internet to research proper addresses.)

Sources for help in writing a formal (business) letter:

- Online letter generator:
http://www.readwritethink.org/files/resources/interactives/letter_generator/
- Letter Writing Guide:

Freedom of Water

- <http://www.letterwritingguide.com/samplebusiness.htm>
- Writer's Handbook: Business Letters: Block form:
- http://writing.wisc.edu/Handbook/BusLetter_Block.html

The screenshot shows the 'Letter Generator' website interface. At the top, there is a title 'Letter Generator' in a large, stylized font. To the right of the title are 'Open' and 'Save' buttons. Below the title is a 'POSTAGE PAID' stamp. The main content area is divided into two columns. The left column displays a preview of a business letter with the following text:

200 Maple Valley Road
Cedar Hill, MO 63015
(816) 771-1234

Ms. Andy Brown
4400 Peachtree Dunwoody Drive
North Atlanta, GA 30305

Dear Ms. Brown:

We really have been excited to meet you in person, and we are so glad that you were able to join us for the conference. We hope you had a great time and that you were able to get some good ideas for your business. We will be in touch with you again soon.

Thank you for your contribution to the conference. We hope you will continue to support us in the future.

Sincerely,
Cathy

The right column contains the following text:

You have finished your letter!
Review your letter. If you want to make changes, use the Back button.

When your letter is final, you can ...

Buttons for 'Print', 'Save Final', and 'Share Final' are visible. At the bottom of the interface, there are buttons for 'Back', 'Envelope Instructions', and 'New letter'. The footer includes logos for 'readwritethink', 'International Reading Association', 'NCTE', 'Copyright 2010 by NCTE. All rights reserved. ReadWriteThink materials may be reproduced for educational purposes.', 'Thinkfinity', and 'Verizon'. There is also a small 'X' button in the top right corner of the letter preview area.

Lesson 11: Water Cleanliness (Inform)

Suggested time frame: 1 class period

Skill: Technical writing

Materials needed: Water quality testing kit(s); technical writing rubric. *NOTE: Teacher should read instructions for testing the water prior to the class session rather than during the test; the students will write out instructions for the test based on how the teacher or an assigned student performs the test, not based on the instructions already written.*

For this lesson, students will test the quality of the school's water supply, and/or the city water supply. Students will analyze the results of their test(s), and then write a technical paper about their testing process and results. Ask the biology/earth science/health teacher to help with this lesson as needed.

Sites to purchase water testing kits:

- <http://www.sciencekits.com/lamotte11.html> (several listed)
- <http://www.discovertesting.com/> (several listed)
- <http://www.sciencekits.com/WaterSafe.html> (\$19.95)
- http://www.eeweek.org/resources/water_quality (several listed)
- <http://www.acornnaturalists.com/store/GREEN-Global-Rivers-Environmental-Education-Network-INTRODUCTORY-WATER-QUALITY-MONITORING-KIT-P488C0.aspx> (GREEN Introductory Water Quality Monitoring Kit: \$34.95)



Introduction:

- How clean do you think our drinking water is?
- What types of things could make our water unclean?
- What types of things could be found in our water?
- Would all of these things be unsafe?
- Would some of them be safe to put in our bodies? (Ask for several responses for each question.)

Let's test our drinking water to see what we can learn about its safety. As I perform (or a selected student performs) this test, you will need to take notes about the steps taken and the results obtained in the test. Then, working in groups of two, you will write out instructions anyone could follow to repeat the test. In your one-page instructional paper, you will include a paragraph about the results we obtain in our own test. Please read through the rubric before beginning your technical writing assignment so you will know what is expected of your completed one-page paper. *(NOTE: It could be helpful to have a brief discussion about the purpose of technical writing, perhaps beginning by reading poorly written and easily misunderstood assembly instructions for some item. This discussion could include questions about what professions might need to have*

technical writing skills. This could also connect those professions to students' potential career choices.)



Journal/blog last 5 minutes:

Journal prompt: *How do you feel about the quality of your drinking water? What did you learn in today's lesson that might change what you think, feel, or do?*

Additional resource:

Here is a great site for evaluating technical writing. This could be used for a fun activity using poorly-written instructions (often found in the "some assembly required" boxes!) to demonstrate the importance of good technical writing:

http://www.readwritethink.org/files/resources/lesson_images/lesson1101/AnalyzingInstructions.pdf

Technical Writing Rubric

Source: <http://esu4sixtraitwriting.wikispaces.com/file/view/6traitsimplifiedtechrubric.pdf> (This is one of several technical writing rubrics that can be used to guide the students as they write and assess the students' completed papers. Links to additional rubrics are in the "Resources" section.)

Simplified Scoring Rubric for Technical Writing

	5	4	3	2	1
IDEAS	<ul style="list-style-type: none"> Clear Answers key question Draws info from more than one source Condenses info Strong support Teaches the reader 	Almost !	Half-way home!	Promising – Needs lots of revision!	<ul style="list-style-type: none"> No clear main point Needs focus Writer needs more info Wanders – or lists facts Support missing/weak Not helpful if you do not know topic
ORGANIZATION	<ul style="list-style-type: none"> Structure highlights main ideas Lead sets up the writing One point leads to another Conclusion brings closure 	Almost!	Half-way home!	Promising – Needs lots of revision!	<ul style="list-style-type: none"> Reader can't tell what to focus on No real lead No real road map No real conclusion
VOICE	<ul style="list-style-type: none"> Engaging, lively Appropriate for topic, audience Reaches out to audience "Just right" tone 	Almost!	Half-way home!	Promising – Needs lots of revision!	<ul style="list-style-type: none"> Flat Not right for topic, audience Does not reach out Distracting, overdone
WORD CHOICE	<ul style="list-style-type: none"> Clear, precise Tech words clarified Words suit topic/audience Jargon avoided 	Almost!	Half-way home!	Promising – Needs lots of revision!	<ul style="list-style-type: none"> Vague, unclear Tech language hard to penetrate Words not suited to topic/audience Jargon overload
SENTENCE FLUENCY	<ul style="list-style-type: none"> Direct, concise Variety in structure Grammatically correct Easy to read quickly 	Almost!	Half-way home!	Promising – Needs lots of revision!	<ul style="list-style-type: none"> Wordy Repetitive Ungrammatical Difficult to get through
CONVENTIONS	<ul style="list-style-type: none"> Standard conventions correct Basic layout highlights key points Graphic devices (bullets) enhance meaning Sources cited correctly 	Almost!	Half-way home!	Promising – Needs lots of revision!	<ul style="list-style-type: none"> Errors in spelling, punctuation, caps, Basic layout visually confusing OR Inappropriate layout (e.g. business letter) No graphics used "Citations missing/incorrect "Print dense" copy hard to read

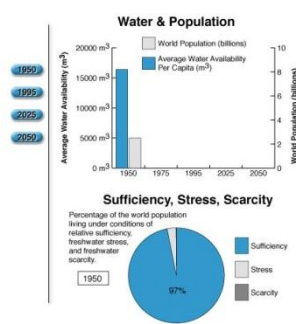
Lesson 12: Water, Water Everywhere?

Suggested time frame: 2 class periods

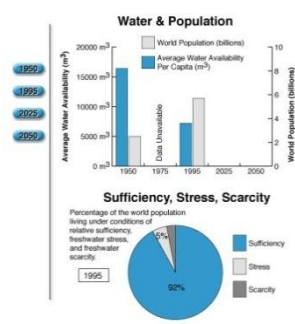
Skill: Reading, social sciences, critical thinking, math (graph interpretation)

Materials needed: computer/laptop; Internet; projector or SmartBoard, if possible.

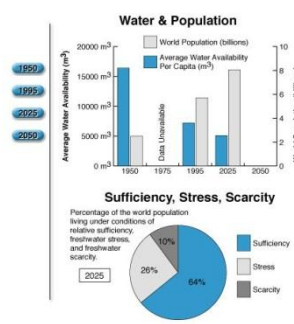
Water, Water Everywhere?



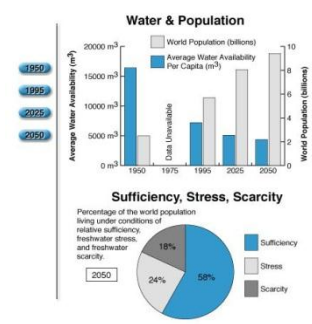
Water, Water Everywhere?



Water, Water Everywhere?



Water, Water Everywhere?



This lesson will help students discover the social, geographic, and political issues surrounding water. Students will create a written “water action plan” for their assigned country. Complete instructions are found here:

<http://school.discoveryeducation.com/lessonplans/activities/watereverywhere/>

Journal/blog last 5 minutes, day 1:

Journal prompt: *Refer to Student Worksheet 1. What do you now know about the social and political freedoms that water brings? Add a sentence or two to your worksheet, and then expand upon those thoughts in your journal.*

Journal/blog last 5 minutes, day 2:

Journal prompt: *Before completing this exercise, what knowledge did you have of the earth’s reserves of water? Do you now believe the earth is in danger of running out of water? Why or why not? Add a sentence or two on your worksheet (second page, seventh row), and then expand upon those thoughts in your journal.*

Lesson 13: Research Paper/Thesis (Inform, Practice)

Suggested time frame: 1 class period

Skill: Research paper writing/Thesis statements

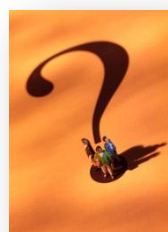
Materials needed: computer/laptop/typewriter; Internet; Student Worksheet 1

NOTE: You may have many effective ways to teach research writing. Use the follow lessons as suggestions!

SUGGESTION: Distribute a rubric prior to beginning the research process so students will know what is expected of them. A research writing rubric is included at the end of this lesson.

Lesson Introduction for Teacher:

Plagiarism is a huge issue at every level of academia today, but when students are engaged in the subject matter and have many things they have personally learned about what they are



researching, the chances of them purchasing or copying another research paper from somewhere online go down drastically. Additionally, having students write a thesis statement out before beginning on their research paper will reduce the chances of blatant plagiarism to nearly 0. If you help students write their thesis statements in class, and if you make those thesis statements into mini-outlines, the only plagiarism you are likely to deal with will be in the category of improper citation rather than full-scale copying of someone else's paper.

It is helpful to ask a **question** students have to answer in their research paper. Here are two suggestions for **research questions**:

- *How does the lack of adequate, clean drinking water affect basic human freedoms?*
- *How has the bottled water industry affected society? ("Society" could be replaced by "the environment," "basic human freedoms," etc.)*

Introduction – WHY RESEARCH?

What have you learned about the freedom of water in the past few weeks? (Ask for several responses.) Let's look at our Student Worksheet 1 and review our questions. (Take time for students to review their responses on the Student Worksheet 1.)

In a few more days, we will begin forming our ideas for a project that will help bless the world for Jesus sake and bring freedom through water. Before we do that, however, we need to become more informed about the subject matter, and more specifically, about the area we are individually considering for a service-project. To do this, we will complete a RESEARCH PAPER. This may be the most significant research paper you ever write, because it will help prepare you to do something great. You cannot fix what is wrong until you know it is broken. You need to get more information about what is wrong and how to fix it before embarking on your service project.

Today we will begin the journey of our research by creating a thesis statement. Research often answers a question. We can call these questions “research questions.” Here are two research questions for you to consider:

- *How does the lack of adequate, clean drinking water affect basic human freedoms?*
- *How has the bottled water industry affected society? (“Society” could be replaced by “the environment,” “basic human freedoms,” etc.)*

Can anyone think of additional research questions we could answer? (Ask for responses; add them to the list once the class agrees they would be good questions to answer for research in this area.)

Each of you will answer the question of your choice in a different way, but each of you needs to have an eye toward your service-learning project as you choose your research question and formulate your answer. Take some time right now to decide which research question interests you the most, or the one that will be most helpful to you as you consider your service-learning project.

- Which question did you choose? (Ask for several responses.)
- Give me a statement that answers the question. (Ask for several responses.)
- Now, give me three reasons that can support your statement. (Ask for several responses.)

(Continue working on creating a thesis statement during the remainder of the class period.)

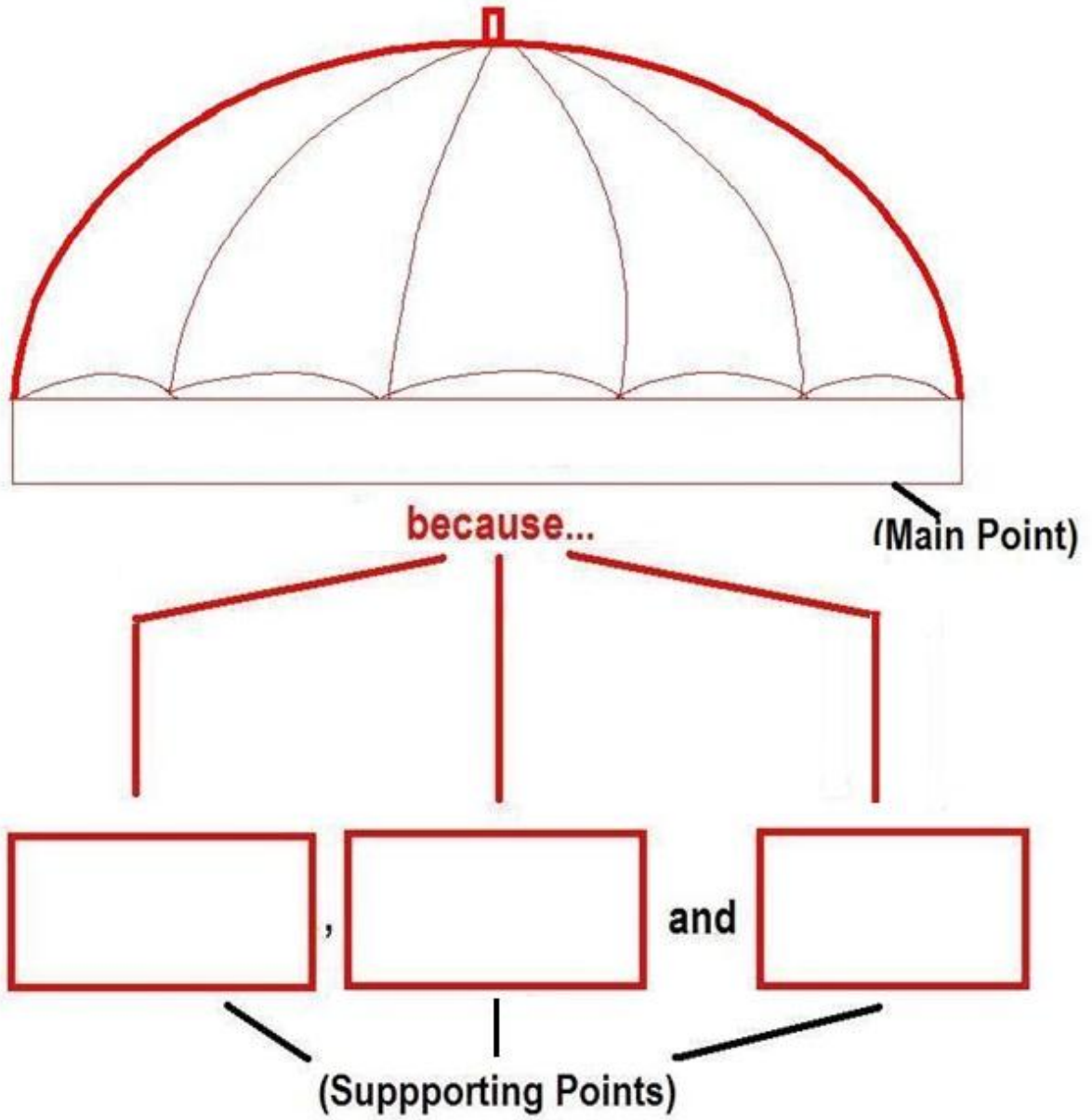
Below are suggestions for teaching the skill of writing a thesis statement. You may have your own methods that work equally well or better. Two graphics that illustrate the process of creating a thesis statement with three “supporting points” or a “blueprint of reasons” are included below.

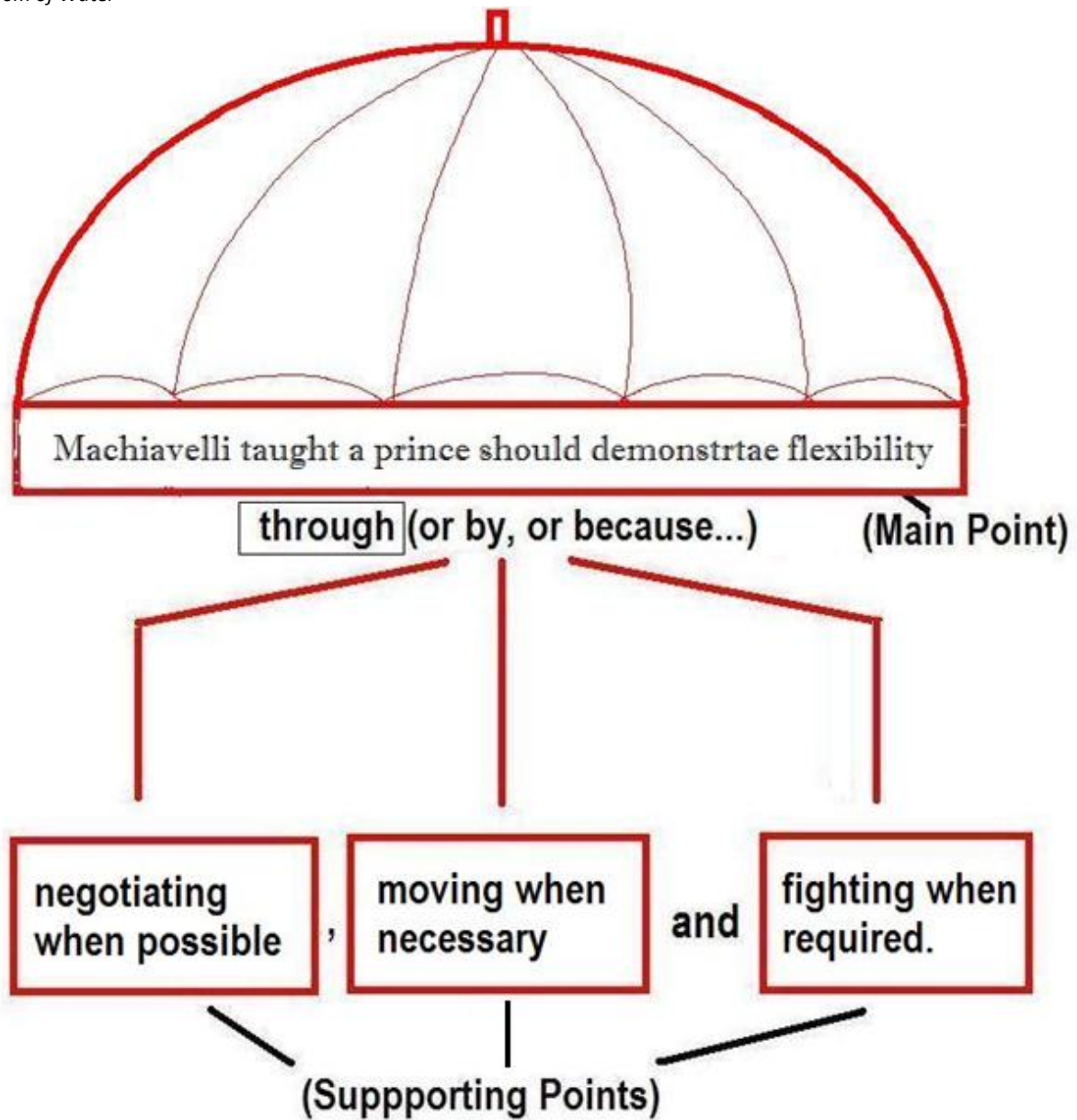
Thesis statement

- A thesis statement should be a condensation of the entire paper.
- A thesis statement should have a clearly and easily identifiable main point (THESIS!).
- A thesis statement should have three (sometimes two, sometimes four) supporting points which help PROVE or DEMONSTRATE the validity of the main point, or GIVE EXAMPLES of the main point.
 - The supporting points should be written in PARALLEL manner.
 - The supporting points should all be DIRECTLY TIED to the MAIN POINT.

Helpful sites for teaching thesis statement writing:

- <http://jerz.setonhill.edu/writing/academic1/thesis-statement-writing-academic-essays/>
(My personal favorite because it uses the same “blueprint of reasons” that I like my students to include in their thesis statements.)
- http://www.indiana.edu/~wts/pamphlets/thesis_statement.shtml#unassigned
- <http://owl.english.purdue.edu/owl/resource/545/01/>
- <http://grammar.ccc.commnet.edu/grammar/composition/thesis.htm>
- <http://writingcenter.unc.edu/handouts/thesis-statements/>





Example for "freedom of water" thesis:

Water project development should focus on including women because they suffer most when water is not available, they stand to gain the most when water is easily accessible, and overall society improves significantly when women and children are empowered.

Journal/blog last 5 minutes:

Journal prompt: *What do you hope to learn as you write this research paper? How might this research paper enable you to bless others as you continue working on this service-learning project?*

	Exemplary 4	Proficient 3	Developing 2	Does not meet expectations 1	Comments	Score
Use of Sources	<ul style="list-style-type: none"> All outside information is supported within text by correct, proper citations, and most of the relevant information is analyzed, synthesized, and commented on. At least five sources are used which are scholarly, documentable and/or historically established. 	<ul style="list-style-type: none"> The predominance of outside information is supported within text by correct, proper citations, and much of the information is analyzed, synthesized, and commented on. A minimum of four sources are used which are scholarly, documentable and/or historically established. 	<ul style="list-style-type: none"> Most outside information is supported within text. Some errors are present in citation format and little of the information is analyzed, synthesized, and commented on. A minimum of four sources are used with an attempt at incorporating scholarly, documentable and/or historically established materials. 	<ul style="list-style-type: none"> Little or no support of outside information within text. Significant and frequent errors present in citation format, and none of the information is analyzed, synthesized, and commented on. Sources used contain no scholarly, documentable and/or historically established value 		
Thesis	<ul style="list-style-type: none"> An unusually perceptive, arguable, and clear thesis with an evident position is present and stated in the introduction. Thesis is insightfully supported by the body of the paper. Thesis is reiterated and expanded upon in the conclusion. 	<ul style="list-style-type: none"> A clear thesis with an evident position is present and stated in the introduction. Thesis is supported by the body of the paper. Thesis is reiterated in the conclusion. 	<ul style="list-style-type: none"> Thesis is present but lacks an evident position. Thesis is not fully supported by body of the paper. Thesis is alluded to in the conclusion. 	<ul style="list-style-type: none"> Presence of thesis is unclear or not evident. Thesis is not supported by the body of the paper. Thesis is not evident in the conclusion. 		
Content & Organization	<ul style="list-style-type: none"> Introduction generates unusually high interest, provides significant background, and indicates a sophisticated writing strategy. Recognizes and contends persuasively with opposing points of view/style/techniques. Writing is communicated clearly and effectively, and uses precise language. No usage errors. *Transitional sentences are utilized to aid in organizational flow. Topic significantly exceeds student's prior knowledge. Original analysis and evaluation is predominant in the writing. Conclusion: Summary evokes insightful analysis/synthesis. It engenders thoughtful personal perceptions, including a generalization that leads to practical application. Paper is at least 5 pages long. 	<ul style="list-style-type: none"> Introduction generates interest, provides adequate background and indicates an effective writing strategy. Recognizes and contends with opposing points of view/style/ techniques. Uses clear language, varied sentence structure, and smooth transitions. Contains few grammatical errors. Topic exceeds student's prior knowledge. Original analysis and evaluation is prominent in the writing. Conclusion: Paper is summarized and the writer draws upon personal perceptions/reflections. 	<ul style="list-style-type: none"> Introduction attempts to generate interest, provide background, and indicates a rudimentary writing strategy. Recognizes opposing points of view/style/ techniques. Generally uses clear language, contains some grammatical errors, fragments, and run-ons. Needs careful proofreading. Topic attempts to exceed the student's prior knowledge. Original analysis and evaluation is occasionally present in the writing. Conclusion: Inadequate summary, attempt at analysis, limited personal perceptions/reflections. 	<ul style="list-style-type: none"> Introduction does not generate interest, provide background, or indicate a writing strategy. Does not recognize opposing points of view/style/ techniques. Grammatical errors and/or sentence structure frequently hinder comprehension to a major degree. Topic does not attempt to exceed prior knowledge. Original analysis and evaluation is not present in the writing. No summary; little or no analysis. Little or no personal perceptions/reflections evident. 		
Language Conventions (Spelling, grammar usage, punctuation)	<ul style="list-style-type: none"> No errors, conventions used effectively. The writer may manipulate conventions for stylistic effect. 	<ul style="list-style-type: none"> Few errors, conventions used effectively to enhance readability. 	<ul style="list-style-type: none"> Frequent errors, impedes comprehension in parts of text. 	<ul style="list-style-type: none"> Errors consistently impede comprehension throughout text. 		
SCORING KEY:	15-16=Exemplary; 13-14=Proficient; 8-12= Developing; 4-7=Does not meet expectations; 0-3=0				Total:	

Lesson 14: Research Paper/Outline (Inform, Practice)

Suggested time frame: 1 class period

Skill: Research paper writing/outline

Materials needed: computer/laptop OR pen and paper; journal/blog for reflection.

If students have used the “supporting points” or “blueprint of reasons” idea for their thesis statement, these “points” or “reasons” can be used as the skeleton for their outline.

Instructions:

During the last class period, we all wrote our thesis statement for our upcoming research paper. Our thesis statement is a condensed road map for our entire paper. Today we will write our outline, which will be an expanded road map for our paper.



First, let’s look at our sample thesis statement:

Water project development should focus on including women because they suffer most when water is not available, they stand to gain the most when water is easily accessible, and overall society improves significantly when women are empowered.

Using this sample, let’s write an outline.

First, we will put the entire thesis statement at the top of the page.

Next, let’s take the first part of the thesis statement (“Water project development should focus on including women”) and the first supporting point/blueprint of reasons (“they suffer most when water is not available”) and make that statement Roman numeral I.

Now, add things you have learned so far from videos, articles, books, web sources, etc., about how women suffer when water is not available as lower case letters “a,” “b,” etc. Microsoft should automatically help you with your outline when you type a capital I, a period, and then a space and then copy and paste “Water project development should. . .” After this statement, you should press “enter,” then “tab,” or click the “indent” icon in the ribbon . You should now have a lower case “a” for your first example of how women suffer most. Hit “enter” to get a “b” for your second example, etc. To go back to the Roman numerals, click on the “outdent” icon in the ribbon .

Next, take the first part of the thesis statement and the SECOND supporting point/blueprint of reasons, and make this Roman numeral II. Again, add things you have learned that will tell your reader why women gain the most when water is easily accessible. You get the idea!

Complete your outline. Ask for help when needed!

Water project development should focus on including women because they suffer most when water is not available, they stand to gain the most when water is easily accessible, and overall society improves significantly when women are empowered.

- I. Water project development should focus on including women because they suffer most when water is not available
 - a. First fact.
 - b. Second fact.
 - c. Third fact.
- II. Water project development should focus on including women because they stand to gain the most when water is easily accessible
 - a. First fact.
 - b. Second fact.
 - c. Third fact.
- III. Water project development should focus on including women because overall society improves significantly when women are empowered.
 - a. First fact.
 - b. Second fact.
 - c. Third fact.

Water project development should focus on including women because they suffer most when water is not available, they stand to gain the most when water is easily accessible, and overall society improves significantly when women are empowered.

Water project development should focus on including women because they suffer most when water is not available, they stand to gain the most when water is easily accessible, and overall society improves significantly when women are empowered.

- I. *Water project development should focus on including women because they suffer most when water is not available*
 - a. *Education suffers*
 - b. *Health suffers*
 - i. *Disease*
 - ii. *Physical toll (muscles, bones)*
 - c. *Hygiene suffers*
 - d. *Other*

Water project development should focus on including women because they suffer most when water is not available, they stand to gain the most when water is easily accessible, and overall society improves significantly when women are empowered.

- I. *Water project development should focus on including women because they suffer most when water is not available*
 - a. *Education suffers*
 - b. *Health suffers*
 - i. *Disease*
 - ii. *Physical toll (muscles, bones)*
 - c. *Hygiene suffers*
 - d. *Other*
- II. *Water project development should focus on including women because they stand to gain the most when water is easily accessible*
 - a. *Gain knowledge (education)*
 - b. *Financial freedom (more time to work)*
 - c. *Other...*

Resources:

- <http://owl.english.purdue.edu/owl/resource/544/02/>
- http://grammar.ccc.commnet.edu/grammar/composition/brainstorm_outline.htm
- <http://www.eduplace.com/ss/hmss/ca/skills/writingoutlines.html>
- http://www.eng.fju.edu.tw/con&com_databank/writing/outlines.htm
- <http://www.regis.edu/content/ars/pdf/ars.wc.Outlines.pdf>
- <http://www.fairfield.k12.ct.us/fairfieldhs/cfairfieldhs03/outlining.htm>
- http://owl.english.purdue.edu/handouts/general/gl_outlin.html

Journal/blog last 5 minutes: *Who cares about research? How would our country have less freedom if we didn't have research? Is it possible it would have more freedom with less or no research? Defend your answer no matter which way you feel!*

Lesson 15: Research Paper/Sources, Documentation (Inform)

Suggested time frame: 1 class period

Skill: Research paper writing/documentation

Materials needed: computer/laptop; Internet; books, magazines, other print sources; journal/blog for reflection.

During this class period, students will use the Internet, books, magazines (both web and hard-copy), and other sources to find specific documentation to support their thesis statement. NOTE: Students may reference the movies they have watched as long as they learn how to document these sources correctly.

Instructions:

Today you will continue learning more about the freedom of water by researching. You may use the Internet, books, magazines, newspaper articles, or any other reliable site. Before we begin, let's refresh our knowledge about how to evaluate online sources. (See PDF below or find PDF [here](#) and project onto the screen.)

Working with your thesis and outline as the starting place, search for information that supports your claims for your paper. If you can't find any documentation for one or more of your supporting statements in your thesis statement, you may need to change your thesis statement to reflect the information you DO find! Make sure to have at least one source for each of your supporting statements.

As you find your sources, you will want to make notes, either on 3x5 cards or on your computer, to tell you the SOURCE of your information and a *summary* of the information. You should also begin your "Works Cited" page now by using this [web site](#). This will help you immensely as you continue to work on your paper!

Resources:

- <http://owl.english.purdue.edu/owl/section/2/>
- <http://www.uhv.edu/ac/style/pdf/findinternet.pdf> (citation machine!)

Journal/blog last 5 minutes: *How does what you have learned about the freedom of water relate to the Biblical allegory of Jesus as the Water of Life?*

Lesson 16: Research Paper/Writing (Inform, Practice)

Suggested time frame: 1-2 class periods (or more, depending on grade level, experience in research writing and/or need for additional help)

Skill: Research paper writing

Materials needed: computer/laptop; Internet; books, magazines, other print sources; journal/blog for reflection.

During this class period, students can have help in writing their research papers. Teachers may choose to use more than one class period to work on the research paper, or they can give the writing part of this assignment as homework. At least one class session of guided help would be beneficial, especially to 9th and 10th graders who may not have done serious research, or for those who have not used MLA documentation before.

Instructions:



By now, you should have all or most of the information you need to write an effective and informative research paper. You have your thesis, you have your outline, and you have your sources. Now you will pull all of these together into a ___ page paper (required number of pages).

We will spend this entire period working on your research paper. Use your note cards or the notes you made on your computer to help you find quotes, data, or other information as needed to write a complete paper. You may wish to begin with the body of the paper and save the introduction

for later. Remember – you will be ANSWERING your chosen research question. Follow your outline and keep your thesis statement in mind at ALL TIMES. Whatever you write needs to be under the umbrella of your thesis statement. If you find you cannot get very far with the thesis you have chosen, don't stray from your topic just to take up space. Rather, modify your thesis statement and your outline to reflect the information you have found in your research.

Resources:

- <http://www9.georgetown.edu/faculty/kingch/How to Write a Research Paper.htm>
“How to Write a Research Paper” (including “The Five Commandments of Writing a Research Paper”); notes WHY to research as well as how to *write* the paper.
- <http://owl.english.purdue.edu/owl/resource/658/1/>
“Writing a Research Paper,” Purdue Online Writing Lab (click on “next resource” on the bottom right corner of the page for more topics on the research/writing process)

Freedom of Water

- <http://writing.wisc.edu/Handbook/PlanResearchPaper.html>
“Writing a Research Paper,” A list with links to more detailed information about the “stages” in writing a research paper
- <http://www.crlsresearchguide.org/> Basic Steps in the Research Process; excellent site with an overview of the research process from start to finish, with helpful links to additional detailed information/instruction.

Journal/blog last 5 minutes: *What skills did you learn in the past class period? What information did you learn as you researched? What ways can you think of to bless others with the skills or the information you learned?*



Getting water from a dirty stream/Africa

Lesson 17: Research Paper/Edit and Refine/Peer Review (Inform, Practice)

Suggested time frame: 1 class period

Skill: Research paper writing/editing

Materials needed: computer/laptop; copies of self-evaluation and/or peer evaluation; journal/blog for reflection.

Making a specific time and/or class period for students to review, edit, and refine their papers would be helpful in the research writing process. Peer review could also take place during this class period. An additional class period could be scheduled for peer review if needed.

Instructions:

During our class period today, you will review your rough draft of your research paper. Using the evaluation tool provided, read through your paper with a critical eye. Watch for and make note of each element on the evaluation tool. If you can't find your thesis statement, for instance, make yourself a note that the thesis is NOT CLEAR.

As you evaluate a classmate's paper, do the same thing. Remember – any changes you make to your paper or your classmate's paper to make it clearer, more accurate, better documented, etc., will benefit anyone who reads the paper!

The following chart can be used for self-evaluation or peer evaluation. It is based on using the analogy of a HOUSE and its elements to describe the completed paper.

Research Paper Self-Evaluation/Peer Evaluation

Do I have the following in my paper?	House analogy	Check!
Interesting introductory paragraph (using a series of questions, anecdote, or other attention grabbing device) DO NOT SAY "My paper is about," or "In my paper, I intend to prove..." etc.	DIG THE HOLE FOR THE FOUNDATION	
Clear main idea (thesis).	FOUNDATION	
Three-four supporting points.	STUDS	
Thesis statement that includes my main idea and supporting points (<i>at the end of the introductory paragraph</i>).		
One-four paragraphs for each supporting point.		
Adequate proof of each main point (sources, research, surveys, etc.).	SHEET ROCK, RUGS, CRYSTAL CHANDELIERS	
Transitional sentences between supporting points that include the <i>main idea</i> , the <i>point I have just covered</i> , and the <i>point I am transitioning to, along with "transition" words</i> .	NAILS FROM THE STUDS TO THE FOUNDATION	
Crisp, clear summary that recaps the paper and makes reference to the main idea and the supporting points	ROOF	
Proper in-text citation/documentation for each quote and reference to information not commonly known		
Work Cited page		
At least 5 sources		
At least 5 pages		

Lesson 18: Project/Research (Extend)

Suggested time frame: 1 class period

Skill: Cooperative group work; critical thinking

Materials needed: Pen, paper; cooperative group rubric; computers/laptops and Internet connection; links to resources (emailed if possible).

This lesson can begin prior to the due date for the final draft of the research paper, if desired.

Introduction:


Today the REAL fun begins! We have filled our brains with knowledge. We have been exposed to the problems around us regarding the freedom of water. Our minds have been churning with ways we could make a difference in the world and bring freedom through water. Now, we are going to DO something!

You may choose to work in a group or as an individual. If you choose to work in a group, you must check out the “cooperative group rubric” so you know how to assign roles, fulfill responsibilities, and function as a **team**. Each team member should pull his/her weight, but should be assigned something to do in an area where he/she excels.


- Form groups. (Allow for some time and a short state of confusion as students form groups.)
- Discuss project ideas, beginning with common questions, problems, and/or areas of passion.
- Check out the links on the resource page for ideas.
- Come to some agreement as to what your group would like to do to bring the freedom of water to the world (allow for switching of groups to find a more common philosophy or group of ideas).
- Spend the last part of the class (10-20 minutes or more) researching what IS being done in the group’s chosen area, and discuss what COULD be done to either join a current project in a meaningful way (such as the Charity Water cause), or create their own project. ENCOURAGE NEW PROJECTS whenever possible.
- Float around the room to assist students/groups as needed.

Journal/blog last 5 minutes: *What difference does it make if you do something about the water issues you have learned about? Why does this matter? To whom does it matter?*


Cooperative Group Rubric



Working as a Team



Collaborative Work Skills: Are You Part of the Solution, or Part of the Problem?

Teacher Name: _____  Student Name: _____
 Final Score: _____

How to Use this Rubric: Your contribution to your group on this project is an essential part of your grade. If you would like to know in advance what your grade might be, read through the criteria listed in each of the categories. Have fun, work hard; the best grade available is yours if you want it.

Schedule	25-28 Points = A	12-17 Points = D	You Grade You	
	21-24 Points = B	0-11 Points = F	Your Group Grades You	
	18-20 Points = C		Your Teacher Grades You	

CATEGORY	4	3	2	1	Score	Comments
Contributions	Routinely provides useful ideas when participating in the group and in class- room discussion. A definite leader who contributes a lot of effort.	Usually provides useful ideas when participating in the group and in classroom discussion. A strong group member who tries hard!	Sometimes provides useful ideas when participating in the group or in classroom discussion. A satisfactory group member who does what is required.	Rarely provides useful Ideas when participating in the group or in classroom discussion. May refuse to participate.		
Attitude	Never is publicly critical of the project or the work of others. Always has a positive attitude about the task(s).	Rarely is publicly critical of the project or the work of others. Often has a positive attitude about the task(s).	Occasionally is publicly critical of the project or the work of other members of the group. Often has a "who cares" attitude about the task(s).	Often is publicly critical of the project or the work of other members of the group. Often has a negative attitude about the task(s).		
Focus on the task	Consistently stays focused on the task and what needs to be done. Very self-directed.	Focuses on the task and what needs to be done most of the time. Other group members can count on this person.	Goofs off more than staying focused. Other group members must sometimes nag, prod, and remind to keep this person on-task.	Rarely focuses on the task or what needs to be done. Lets others do the work.		
Pride	Work reflects this student's best efforts.	Work reflects a strong effort from this student.	Work reflects some effort from this student.	Work reflects very little effort on the part of this student.		
Working with Others	Almost always listens to, shares with, and supports the efforts of others. Tries to keep people working well together.	Usually listens to, shares with, or supports the efforts of others. Does not cause "waves" in the group.	Rarely listens to, shares with, or supports the efforts of others. Is not a good team member.	Frequently distracts, or does not support the efforts of others. Is a disruption to the group or task.		
Time-management	Routinely uses time well throughout the project to ensure things get done on time. Group does not have to adjust deadlines or work responsibilities because of this person's procrastination.	Usually uses time well throughout the project, but may have procrastinated on one thing. Group does not have to adjust deadlines or work responsibilities because of this person's procrastination.	Tends to procrastinate, but always gets things done by the deadlines. Group does not have to adjust deadlines or work responsibilities because of this person's procrastination.	Rarely gets things done by the deadlines or group has to adjust deadlines or work responsibilities because of this person's inadequate time management.		
Quality of Work	Provides work of the highest quality.	Provides high quality work.	Provides work that occasionally needs to be checked or redone by other group members to ensure quality.	Provides work that usually needs to be checked or redone by others to ensure quality.		

Service-learning Project Resources

Try out some of these sites for ideas of how to create your

FREEDOM OF WATER project:



- <http://www.uwex.edu/erc/gwah/> Give Water a Hand; pre-designed projects for young people to improve local water quality.
 - <http://www.h2oforliveschools.org/> H2O for Life; this site lists water projects in developing countries that students/schools can adopt and raise money for water projects.
 - <http://www.waterplanetchallenge.org/wpc/> Great resource for both teachers and students for projects related to the “Water Planet.”
- <http://cgee.hamline.edu/watershed/action/> Watershed Action; links to various service-projects dedicated to preventing water pollution in local watershed areas (specific references to Minnesota, but applicable to anywhere!).
- <http://projectreadreach.weebly.com/service-learning-project.html> Project Read and Reach: Students collect shoes for the Shoeman Water Project.
- <http://www.neuseriver.org/riverkids.html> This site might give you an idea of how you could educate children in your community about water in your own area.
- http://www.saws.org/latest_news/Newsdrill.cfm?news_id=681 There are some key words in this site that might give you ideas for Freedom of Water projects you could create.
- <http://gysd.org/ideas> The “Environment & Animals” section has some water-related project ideas.
- <http://www.bloodwatermission.com/> This Christian group works with communities in 3rd world countries to find the best solution to their water needs.
- <http://www.4-h.org/resource-library/curriculum/4-h-theres-no-new-water/service-learning/> This “There’s No New Water” site has ideas and links for potential projects.
- <http://academic.evergreen.edu/g/grossmaz/klessill/> This website was produced by some college geography students; it could give you some ideas for something YOU could do!
- http://www.adra.org/site/PageNavigator/involved/do_something_kit.html This is part of ADRA’s site, where you can get a “kit” to “do something” for others.
- **DO YOUR OWN SEARCH to see what interests you!**

Lesson 19: Project/Development/ Feasibility Study (Extend)

Suggested time frame: 1 class period

Skill: Cooperative group work; development of citizenship; feasibility study

Materials needed: computer/laptop with access to the Internet; sample feasibility handout (see next two pages).

Introduction:

When individuals or groups want to start a business, what do they need to do? Do they just begin something without thinking it through? Do they spend thousands and even millions of dollars first? Or do they spend time studying how their project, business, or proposal might work? Is there a need for what they want to produce? What will the outcome be? Can they make a profit? These are all questions that are answered by a typical “feasibility study.”



We are all going to create a project that we hope will impact the world. But before we begin, wouldn't it be wise if did some studying to make sure our ideas will work? Since we are not trying to MAKE money by our project, but to bless others for Jesus' sake, our feasibility study will be somewhat different from the typical business feasibility study model. First, consider the questions on page one of your handout. Then, complete page two of the handout, using your computer or a different piece of paper. The completed feasibility study should be written in a professional manner and submitted either digitally (email) or typed and printed.

Journal/blog last 5 minutes: *What makes you think this project will work, after completing this feasibility study?*

Feasibility Study Handout, Page 1

Feasibility Study

Questions to Consider:

- What will we need?
- Can we do this?
- What resources are available?
- Will we have enough money?
- Who will this impact?
- Can we continue this project after this class is over?
- How many people will we need in our group?
- Do we have enough people to effectively complete this project?
- Can we combine with another group?
- Can we get other schools/classrooms involved?
- Other questions???



Feasibility Study, Page 2

Feasibility Study for Freedom of Water Projects

Student(s) Name(s) (list all group members if this is a group project):

Project Name:

Project Goal:

Project Objectives:

Location of Project:

Project Questions (Please answer in complete sentences)

- 1) Who **specifically** will this project affect, and how will it affect them (think about people, community, environment)? Think of the positive and negative ethical implications of your project.
- 2) How will this project have a lasting impact on your local or global community? It is important that it is not just a temporary influence like a one-time beach clean-up.
- 3) What **specific** community organizations/people will you need to interact with in order to achieve the goal and objectives of the project? Please make a list and include as much information as possible about each contact.
- 4) Who are at least two people (non-family members) who could be your outside mentors? Explain how each of them could support your project.
- 5) What materials will you need to complete the project? Please include as much details as possible in list form.
- 6) Utilize the materials list to estimate the cost of the project. You may need to do some online research for this.
- 7) Create a timeline. Consider that the project must be completed or functioning by _____ (insert date). Please create a rough timeline beginning now that you would need to follow in order to achieve the goals of the project.
- 8) How does your project address the Freedom of Water?
- 9) What are the spiritual aspects of your project?
- 10) Please include any other miscellaneous details you think will be important for the completion of this project.

Lesson 20: Project/Proposal

Suggested time frame: 1-2 class periods

Skill: writing; speech; cooperative group work

Students will work in groups to think through and then write out their project proposal. The following instructions on “How to Write a Proposal” will be helpful and can be distributed to the students. Alternately, the link with these instructions can be emailed or otherwise sent digitally to the students. (<http://www.writingvalley.com/others/how-to-write-a-project-proposal/>). When the proposals are completed, they should be presented orally to the entire class.

How to Write a Project Proposal

Posted on May 1, 2012 by [Writing Valley](#)

If you want to know how to write a project proposal then you must first know what it means. A project proposal in its simplest form is a document that has only one goal, and that is to convince the reader that the project is worthy and so should be completed. The first thing you must understand is that there is no set format or structure that is to be followed, yet there are some components in a proposal that, if missing, will render it useless.

When you are attempting to write a project proposal, the one thing you must keep in mind is that it is something like a one sided debate and an argument and you need to win it. If your project proposal doesn't put up a fight and doesn't give viable arguments then it will be rejected immediately. Consult the tips below and learn how to write a good project proposal.

Carefully look through the audience

Before you start writing a project proposal, you need to analyze and look through the people who are going to be reading your proposal. This step is mandatory and shouldn't be missed out as it will give you a very good chance of checking what the audience already knows about the project or others like it.

Introduce the project in clear words

After you have successfully analyzed the audience, begin writing your project proposal. The first part of your proposal is the introduction which has the brief description of the project you are presenting. Don't make the introduction too long as this will not be appreciated. Let the reader know why the project is important and what it can do once it has been made.

Include any background information

Once your introduction is done, include a section which has the background of the project. The sort of information that comes under this heading would be any other project that is like yours. Many people ask why it is important to include this kind of background and I tell them that it is crucial because it lets the reader know that you are knowledgeable about what you are working with.



Write out your project

This is the section which will have the details of your project. Here you need to put in everything that goes into your project and also the things which are related to it. Don't miss out any component as one small thing will make all the difference.

The time and the Budget

In the end, just state the time when the project can be expected to be completed. Also give the nearest budget so the costs can be measured.

Journal/blog last 5 minutes: Free write: Write about anything you want to THAT RELATES TO THIS SERVICE-LEARNING UNIT/PROJECT.

Lesson 21: Project/Creation

Suggested time frame: 1 or more class periods + homework/outside class time

Skill: Cooperative learning; critical thinking; service; decision making;

After the students have presented their proposals to the class (and the teacher!), have received any pertinent feedback, and have made modifications to their projects as necessary, they will need time to implement the various steps of their project. This may require help from outside sources, but primarily, it should be student driven.

Students will need sufficient time to work on creating their project. Many skills will be called upon in order to create each step. Students should keep a photo journal of each step taken in creating the project to be used in a PowerPoint presentation which will be part of the final phase of the service-learning project (the presentation).

Since each student's/group's project will be different, the exact steps in creating the project will vary.

Encourage students to continue their blog/journal each day as they work on their project. Remember – reflection is a significant part of any service-learning project.



Lesson 22: Project/Launch

Suggested time frame: 1 class period for discussion

Skill: Multiple skills will be used, depending on the specific project.



Here is where the students get to SHINE! They will put all their planning into action. They will take the steps they have outlined in their project proposal and actually DO them! This step will be different for each student or group. Allow class time for students to share their struggles and successes in launching their project, receive input from the other students/groups as to how they can overcome problems, and ultimately learn to make their project more successful.

It is possible the launch date will be different for different groups due to the extent of their projects, the resources required, time-line issues beyond their control, etc.. You may need to go on to other lesson plans (other than this unit) while some students get ready to launch their projects.

Lesson 23: Project/Presentation (Perform)

Suggested time frame: 1 class period

Skill: Speech; organization; technical skills

Once the students' projects are off the ground and they have documented their journey from the beginning of the project to the launch phase, it is time to tell others about their work! The act of serving for Jesus' sake may spark a fire in others to do their part to change the world.

- Suggestion: seek audiences in the community such as a Kiwanis club, the local high school, the Rotary club (they are big into water projects), or the local public middle school, where students can share their final presentations, and detail the creation, development, and launch of their project.



Throughout the project planning and launching phases, students should be taking photos for a photo-journal. These photos can be used to create a PowerPoint presentation or movie, documenting the journey from beginning to launch.

For suggestions as to the content of the final presentations, see the rubric on the following page.

Suggestions for the actual presentation:

- Set parameters for the final presentation: length, type of materials to be included (journal/blog posts, photos, feasibility study, summary of research, etc.).
- Include a written/memorized speech that demonstrates student growth (i.e. "What I knew about the Freedom of Water before I began this project"; "What I learned along the way"; "What I know now"; "How this knowledge has changed my life"; "How my project will change the world."). Students should refer to Student Worksheet 1 to refresh their memory about what they learned during this journey.
- Plan for students to give the presentation to a formal audience larger than just their classmates.
- Encourage students to dress formally for the presentation



Because this is a celebration of success for the students, plan some sort of celebration activity which could include the school principal, parents, other students, etc., to recognize the work the students have done. Allow time for students to share their experiences with their peers and family members, much as they did with their formal presentations to a community group.

Presentation Rubric

Service-Learning Project Presentation Rubric

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score/ Comments
Content	Presentation includes 1-2 of the following: PowerPoint or movie; reflections; photo-journal; graphics; feasibility study; summary of research.	Presentation includes 3-4 of the following: PowerPoint or movie; reflections; photo-journal; graphics; feasibility study; summary of research.	Presentation includes 5 of the following: PowerPoint or movie; reflections; photo-journal; graphics; feasibility study; summary of research.	Presentation includes all of the following: PowerPoint or movie; reflections; photo-journal; graphics; feasibility study; summary of research.	
Graphics	Graphics and/or photos are minimal or missing all together.	Presentation has few appropriate graphics including photos detailing a small amount of the process of creating and implementing the project (photo-journal).	Presentation has some appropriate graphics including photos detailing some of the process of creating and implementing the project (photo-journal).	Presentation has appropriate graphics throughout, including photos detailing the process of creating and implementing the project (photo-journal).	
Reflection	Journal or blog is missing large amounts of information and/or entries, and demonstrates little thought and time expended.	Journal or blog is missing many entries; journal or blog demonstrates cursory thought and time expended.	Journal or blog is mostly complete, thoughtful, and compelling, demonstrating some thought and learning throughout the unit and project.	Journal or blog is complete, thoughtful, and compelling, demonstrating significant thought and learning throughout the unit and project.	
Documentation	Few sources (web sites, graphics, songs, etc.) are documented in a "credit" slide or some other method of documentation; Few direct quotes are properly noted.	Some sources (web sites, graphics, songs, etc.) are documented in a "credit" slide or some other method of documentation; Some direct quotes are properly noted.	Most sources (web sites, graphics, songs, etc.) are documented in a "credit" slide or some other method of documentation; Most direct quotes are properly noted.	All sources (web sites, graphics, songs, etc.) are documented in a "credit" slide or some other method of documentation; All direct quotes are properly noted.	
Follow-up/ Future plan	Follow-up and/or future plans for the project are missing or unclear; contact people are not listed; no time-line is included.	Brief follow-up and/or future plans for the project are mentioned; contact people are listed; brief time-line is included.	Basic follow-up and/or future plans for the project are mentioned; contact people are listed; basic time-line is included.	Organized follow-up and/or future plans for the project are well-articulated; contact people are listed; extended time-line is included.	
Total/ Comments					

Middle School Application

Middle school students, grades 5-8, could participate in this service learning project with the following suggested modifications:



- Reduce requirements for research paper, or eliminate research paper
- Modify persuasive paper requirements; introduce the idea of persuasion and give students an opportunity to write several persuasive paragraphs about the subject of bottled water and the issues surrounding the sale and use of bottled water.
- Encourage verbal debate about the bottled water problem as an alternate to a persuasive paper.
- Have students draw pictures of children whose lives are affected by lack of adequate, clean water.

There are also complete lessons available for middle school students to become involved in a fundraiser for a water project. Rather than having students design and complete their own projects, this project could be used by the whole class:

<http://www.nylc.org/resources/downloads/learning-about-water-access-through-service-learning-fundraising-project>

Yet another resource for middle school students on the subject of water quality has been created by California Water Boards. It is available through the National Service Learning Clearinghouse. The focus is on science: <http://www.servicelearning.org/library/resource/7205>.

The Importance of “Metacognition”

Merriam-Webster defines metacognition as “awareness or analysis of one's own learning or thinking processes” (<http://www.merriam-webster.com/dictionary/metacognition>). Barbara Abromitis strengthens and expands this definition with this comment:

Metacognition encompasses the act of thinking about thinking, the inner voice that helps one solve problems, strategize, and self-evaluate performance. For K-12 students, it can be a vital component of successful learning; and for lower-performing students, it can be the one thing that makes a difference in achievement.

(<http://suite101.com/article/metacognitive-strategies-for-k12-students-a135144>)

We even have some indication that reflection, or “thinking about thinking,” was something Ellen White thought was important:

Train the young to do what is appointed them, and from week to week let them bring their reports to the missionary meeting, telling what they have experienced and through the grace of Christ what success has been theirs. If such reports were brought in by consecrated workers, the missionary meetings would not be dull and tedious. They would be full of interest, and there would be no lack in attendance (6T 435.4).

In conclusion, we can see that metacognition/reflection/thinking about thinking is important for the success of our service-learning projects – and in fact may be helpful for all learning!

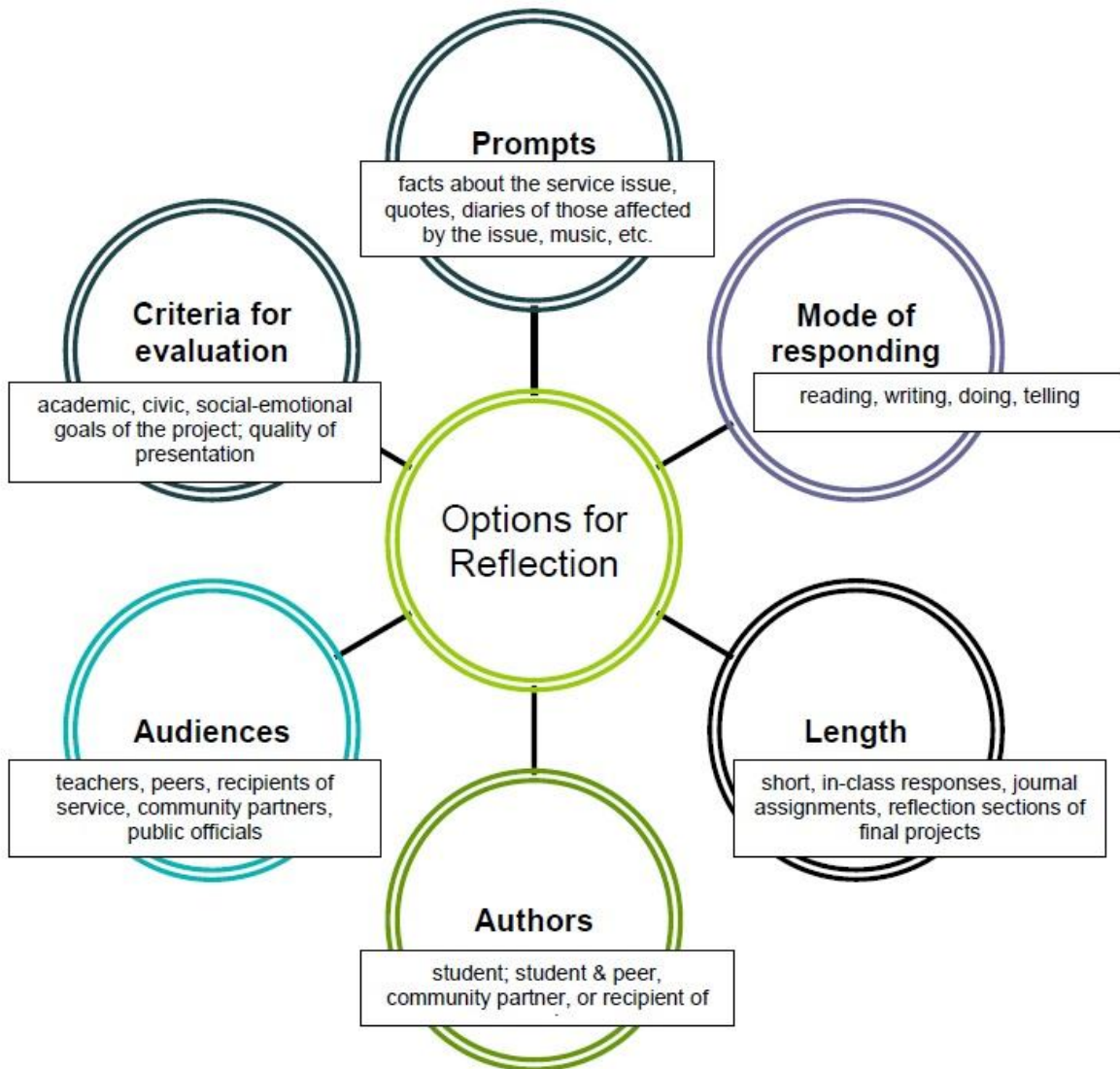
Throughout this unit, students are required (or at the minimum, encouraged) to journal/blog about their experience, what they are learning, how they are feeling, etc. As noted in the service-learning links at the beginning of this unit, reflection is a significant aspect of true service-learning, and it is one of the elements that sets it apart from community service. The following quote and graphic comes from a significant document, a service-learning “Toolkit” on the www.servicelearning.org website:

“As previously discussed, reflection should be woven through each of the phases. In the reflection phase that occurs after the service, your goal is to name and solidify the learning. During this phase, reflecting on the service-learning experience can encourage your students to:

- *Connect classroom learning with learning from service, giving both greater meaning;*
- *Question their assumptions both about the causes and solutions of social problems and about those different from themselves;*
- *Improve their problem solving skills; and*
- *Develop a deeper understanding of themselves and their responsibilities as citizens of a democratic society.*

Good reflection activities are continuous, connected, guided, allow feedback and assessment, and help to clarify student values. As the following diagram indicates, teachers have options for reflection assignments that can meet these criteria.”

http://www.servicelearning.org/filemanager/download/8542_K-12_SL_Toolkit_UPDATED.pdf



Options for Reflection: http://www.servicelearning.org/filemanager/download/8542_K-12_SL_Toolkit_UPDATED.pdf, page 36

The following six pages are a 6+1 Traits rubric for blog posts which can be used to assess reflections.

	Goes Beyond Expectations	Meets Expectations	Approaches Expectations	Let's Clarify Expectations
Blog Post IDEAS/CONTENT	<p>All qualifications for "Meets Expectations" are strongly met and exceeded. In addition:</p> <p>Insight—an understanding of life and a knack for picking out what is significant—is an indicator of high level performance, though not required.</p>	<p>This blog post is clear and focused. It holds the reader's attention. Relevant anecdotes and details enrich the central theme.</p> <p>A. The topic is narrow and manageable. B. Relevant, telling, quality details give the reader important information that goes beyond the obvious or predictable. C. Reasonably accurate details are present to support the main ideas. D. The writer seems to be writing from knowledge or experience; the ideas are fresh and original. E. The reader's questions are anticipated and answered. F. The writer has developed a clear theme, either explicit or implicit.</p>	<p>The writer is beginning to define the topic, even though development is still basic or general.</p> <p>A. The topic is fairly broad; however, you can see where the writer is headed. B. Support is attempted, but doesn't go far enough yet in fleshing out the key issues or story line. C. Ideas are reasonably clear, though they may not be detailed, personalized, accurate, or expanded enough to show in-depth understanding or a strong sense of purpose. D. The writer seems to be drawing on knowledge or experience, but has difficulty going from general observations to specifics. E. The reader is left with questions. More information is needed to "fill in the blanks." F. The writer generally stays on the topic but does not develop a clear theme. The writer has not yet focused the topic past the obvious.</p>	<p>As yet, the blog post has no clear sense of purpose or central theme. To extract meaning from the text, the reader must make inferences based on sketchy or missing details. The writing reflects more than one of these problems:</p> <p>A. The writer is still in search of a topic, brainstorming, or has not yet decided on the main idea of the post. B. Information is limited or unclear or the length is not adequate for development. C. The idea is a simple restatement of the topic or an answer to a question with little or no attention to detail. D. The writer has not begun to define the topic in a meaningful, personal way. E. Everything seems as important as everything else; the reader has a hard time sifting out what is important. F. The text may be repetitious, or may read like a collection of disconnected, random thoughts with no discernible point.</p>

	Goes Beyond Expectations	Meets Expectations	Approaches Expectations	Let's Clarify Expectations
Blog Post ORGANIZATION	<p>All qualifications for "Meets Expectations" are strongly met and exceeded.</p> <p>In addition: Creativity—an unusual or unexpected method of organization—is an indicator of high level performance, though not required.</p>	<p>The organization enhances and showcases the central idea or theme. The order, structure, or presentation of information is compelling and moves the reader through the text.</p> <p>A. An inviting introduction draws the reader in; a satisfying conclusion leaves the reader with a sense of closure and resolution. B. Thoughtful transitions clearly show how ideas connect. C. Details seem to fit where they're placed; sequencing is logical and effective. D. Pacing is well controlled; the writer knows when to slow down and elaborate, and when to pick up the pace and move on. E. The title, if desired, is original and captures the central theme of the piece. F. Organization flows so smoothly the reader hardly thinks about it; the choice of structure matches the purpose and audience.</p>	<p>The organizational structure is strong enough to move the reader through the text without too much confusion.</p> <p>A. The blog post has a recognizable introduction and conclusion. The introduction may not create a strong sense of anticipation; the conclusion may not tie-up all loose ends. B. Transitions often work well; at other times, connections between ideas are fuzzy. C. Sequencing shows some logic, but not under control enough that it consistently supports the ideas. In fact, sometimes it is so predictable and rehearsed that the structure takes attention away from the content. D. Pacing is fairly well controlled, though the writer sometimes lunges ahead too quickly or spends too much time on details that do not matter. E. A title (if desired) is present, although it may be uninspired or an obvious restatement of the prompt or topic. F. The organization sometimes supports the main point or storyline; at other times, the reader feels an urge to slip in a transition or move things around.</p>	<p>The writing lacks a clear sense of direction. Ideas, details, or events seem strung together in a loose or random fashion; there is no identifiable internal structure. The writing reflects more than one of these problems:</p> <p>A. There is no real lead to set-up what follows, no real conclusion to wrap things up. B. Connections between ideas are confusing or not even present. C. Sequencing needs lots and lots of work. D. Pacing feels awkward; the writer slows to a crawl when the reader wants to get on with it, and vice versa. E. No title is present (if requested) or, if present, does not match well with the content. F. Problems with organization make it hard for the reader to get a grip on the main point or story line.</p>

	Goes Beyond Expectations	Meets Expectations	Approaches Expectations	Let's Clarify Expectations
Blog Post VOICE	<p>All qualifications for "Meets Expectations" are strongly met and exceeded.</p> <p>In addition: Vulnerability—taking a risk through the particular point of view taken—is an indicator of high level performance, though not required.</p>	<p>The writer speaks directly to the reader in a way that is individual, compelling and engaging. The writer crafts the writing with an awareness and respect for the audience and the purpose for writing.</p> <p>A. The tone of the writing adds interest to the message and is appropriate for the purpose and audience. B. The reader feels a strong interaction with the writer, sensing the person behind the words. C. The writer takes a risk by revealing who he or she is consistently throughout the piece. D. Expository or persuasive writing reflects a strong commitment to the topic by showing why the reader needs to know this and why he or she should care. E. Narrative writing is honest, personal, and engaging and makes you think about, and react to, the author's ideas and point of view.</p>	<p>The writer seems sincere but not fully engaged or involved. The result is pleasant or even personable, but not compelling.</p> <p>A. The writer seems aware of an audience but discards personal insights in favor of obvious generalities. B. The writing communicates in an earnest, pleasing, yet safe manner. C. Only one or two moments here or there intrigue, delight, or move the reader. These places may emerge strongly for a line or two, but quickly fade away. D. Expository or persuasive writing lacks consistent engagement with the topic to build credibility. E. Narrative writing is reasonably sincere, but doesn't reflect unique or individual perspective on the topic.</p>	<p>The writer seems indifferent, uninvolved, or distanced from the topic and/or the audience. As a result, the paper reflects more than one of the following problems:</p> <p>A. The writer is not concerned with the audience. The writer's style is a complete mismatch for the intended reader or the writing is so short that little is accomplished beyond introducing the topic. B. The writer speaks in a kind of monotone that flattens all potential highs or lows of the message. C. The writing is humdrum and "risk-free." D. The writing is lifeless or mechanical; depending on the topic, it may be overly technical or jargonistic. E. The development of the topic is so limited that no point of view is present—zip, zero, zilch, nada.</p>

	Goes Beyond Expectations	Meets Expectations	Approaches Expectations	Let's Clarify Expectations
<p>Blog Post WORD CHOICE</p>	<p>All qualifications for "Meets Expectations" are strongly met and exceeded.</p> <p>In addition: Musicality in the use of sounds and syllables that raise the impact of prose to that of poetry is an indicator of high level performance, though not required.</p>	<p>Words convey the intended message in a precise, interesting, and natural way. The words are powerful and engaging.</p> <p>A. Words are specific and accurate. It is easy to understand just what the writer means. B. Striking words and phrases often catch the reader's eye and linger in the reader's mind. C. Language and phrasing is natural, effective, and appropriate for the audience. D. Lively verbs add energy while specific nouns and modifiers add depth. E. Choices in language enhance the meaning and clarify understanding. F. Precision is obvious. The writer has taken care to put just the right word or phrase in just the right spot.</p>	<p>The language is functional, even if it lacks much energy. It is easy to figure out the writer's meaning on a general level.</p> <p>A. Words are adequate and correct in a general sense, and they support the meaning by not getting in the way. B. Familiar words and phrases communicate but rarely capture the reader's imagination. C. Attempts at colorful language show a willingness to stretch and grow but sometimes reach beyond the audience (thesaurus overload!). D. Despite a few successes, the writing is marked by passive verbs, everyday nouns, and mundane modifiers. E. The words and phrases are functional with only one or two fine moments. F. The words may be refined in a couple of places, but the language looks more like the first thing that popped into the writer's mind.</p>	<p>The writer demonstrates a limited vocabulary or has not searched for words to convey specific meaning.</p> <p>A. Words are so nonspecific and distracting that only a very limited meaning comes through. B. Problems with language leave the reader wondering. Many of the words just don't work in this piece. C. Audience has not been considered. Language is used incorrectly making the message secondary to the misfires with the words. D. Limited vocabulary and/or misused parts of speech seriously impair understanding. E. Words and phrases are so unimaginative and lifeless that they detract from the meaning. F. Jargon or clichés distract or mislead. Redundancy may distract the reader.</p>

	Goes Beyond Expectations	Meets Expectations	Approaches Expectations	Let's Clarify Expectations
<p>Blog Post</p> <p>SENTENCE FLUENCY</p>	<p>All qualifications for "Meets Expectations" are strongly met and exceeded.</p> <p>In addition: Musicality in the use of phrasing and syntax that raise the impact of prose to that of poetry is an indicator of high level performance, though not required.</p>	<p>The writing has an easy flow, rhythm, and cadence. Sentences are well built, with strong and varied structure that invites expressive oral reading.</p> <p>A. Sentences are constructed in a way that underscores and enhances the meaning. B. Sentences vary in length as well as structure. Fragments, if used, add style. Dialogue, if present, sounds natural. C. Purposeful and varied sentence beginnings add variety and energy. D. The use of creative and appropriate connectives between sentences and thoughts shows how each relates to, and builds upon, the one before it. E. The writing has cadence; the writer has thought about the sound of the words as well as the meaning. The first time you read it aloud is a breeze.</p>	<p>The text hums along with a steady beat, but tends to be more pleasant or businesslike than musical, more mechanical than fluid.</p> <p>A. Although sentences may not seem artfully crafted or musical, they get the job done in a routine fashion. B. Sentences are usually constructed correctly; they hang together; they are sound. C. Sentence beginnings are not ALL alike; some variety is attempted. D. The reader sometimes has to hunt for clues (e.g., connecting words and phrases like however, therefore, naturally, after a while, on the other hand, to be specific, for example, next, first of all, later, but as it turned out, although, etc.) that show how sentences interrelate. E. Parts of the text invite expressive oral reading; others may be stiff, awkward, choppy, or gangly.</p>	<p>The reader has to practice quite a bit in order to give this paper a fair interpretive reading. The writing reflects more than one of the following problems:</p> <p>A. Sentences are choppy, incomplete, rambling or awkward; they need work. Phrasing does not sound natural. The patterns may create a sing-song rhythm, or a chop-chop cadence that lulls the reader to sleep. B. There is little to no "sentence sense" present. Even if this piece was flawlessly edited, the sentences would not hang together. C. Many sentences begin the same way—and may follow the same patterns (e.g., subject-verb-object) in a monotonous pattern. D. Endless connectives (and, and so, but then, because, and then, etc.) or a complete lack of connectives create a massive jumble of language. E. The text does not invite expressive oral reading.</p>

	Goes Beyond Expectations	Meets Expectations	Approaches Expectations	Let's Clarify Expectations
Blog Post CONVENTIONS	<p>All qualifications for "Meets Expectations" are strongly met and exceeded.</p> <p>In addition: The writer may manipulate conventions for stylistic effect—and it works! The piece is ready to publish.</p>	<p>The writer demonstrates a good grasp of standard writing conventions (e.g., spelling, punctuation, capitalization, grammar, usage, paragraphing) and uses conventions effectively to enhance readability. Errors tend to be so few that just minor touch-ups would get this piece ready to publish.</p> <p>A. Spelling is generally correct, even on more difficult words. B. The punctuation is accurate, even creative, and guides the reader through the text. C. A thorough understanding and consistent application of capitalization skills are present. D. Grammar and usage are correct and contribute to clarity and style. E. Paragraphing tends to be sound and reinforces the organizational structure. F. The piece is very close to being ready to publish</p>	<p>The writer shows reasonable control over a limited range of standard writing conventions. Conventions are sometimes handled well and enhance readability; at other times, errors are distracting and impair readability.</p> <p>A. Spelling is usually correct or reasonably phonetic on common words, but more difficult words are problematic. B. End punctuation is usually correct; internal punctuation (commas, apostrophes, semicolons, dashes, colons, parentheses) is sometimes missing/wrong. C. Most words are capitalized correctly; control over more sophisticated capitalization skills may be spotty. D. Problems with grammar or usage are not serious enough to distort meaning but may not be correct or accurately applied all of the time. E. Paragraphing is attempted but may run together or begin in the wrong places. F. Moderate editing (a little of this, a little of that) would be required to polish the text for publication.</p>	<p>Errors in spelling, punctuation, capitalization, usage, and grammar and/or paragraphing repeatedly distract the reader and make the text difficult to read. The writing reflects more than one of these problems:</p> <p>A. Spelling errors are frequent, even on common words. B. Punctuation (including terminal punctuation) is often missing or incorrect. C. Capitalization is random and only the easiest rules show awareness of correct use. D. Errors in grammar or usage are very noticeable, frequent, and affect meaning. E. Paragraphing is missing, irregular, or so frequent (every sentence) that it has no relationship to the organizational structure of the text. F. The reader must read once to decode, then again for meaning. Extensive editing (virtually every line) would be required to polish the text for publication.</p>

Differentiated Instruction

Throughout any well-designed service-learning unit one can find many different ways of addressing various learning styles and preferences. Additionally, the 4MAT method of teaching meets students' learning preferences and needs throughout the course of instruction around the 4MAT "wheel." In this unit, the 4MAT wheel is loosely applied.

Barbara A. Lewis, in an excerpt from her article "Service Learning Hooks Gifted Students on Learning, states that service-learning meets the needs of gifted students.



Why Service Learning?

Service, when connected to learning, benefits students of all academic abilities. For gifted students, service can also provide a specialized and challenging curriculum. Jean Piaget and other reformers stressed teaching thinking and learning as an interaction with the environment. In recent years, service has been an element of virtually every educational reform movement.

Problem Based Learning¹ and the Future Problem Solving Program² are just two examples of programs that invite service. Constance Shannon, Harry Passow, Jeffrey Kahn, and Joseph Renzulli have all encouraged service for gifted learners. Annemarie Roeper has stressed the need for gifted kids to seek solutions to community and global problems (1995). Other educators, however, have described service learning as irrelevant fluff in the face of demands for higher test scores and improved basic skills (Conrad and Hedin 1991).

The frog emerged as a prince, however, after the Federal Government endorsed service learning with the National and Community Service Act (1990), providing millions of dollars in funding each ensuing year. Since then, every state has applied for funding and scrambled to integrate service into their schools.

As a teacher of gifted students and a national consultant of service and social action, I've often seen service learning provide an extended or differentiated curriculum (Van Tassel-Baska 1993) for the gifted. Service is an experience that interests and challenges them, encourages critical thinking, and stimulates them to contribute in areas of passionate interest to them. Here are some reasons why.

(<http://www.ascd.org/publications/educational-leadership/feb96/vol53/num05/Serving-Others-Hooks-Gifted-Students-on-Learning.aspx>). Lewis then goes on to tell WHY this is true. The article is worth reading in its entirety. You can read more about Lewis and her award-winning teaching here: http://www.freespirit.com/catalog/author_detail.cfm?AUTHOR_ID=11.

Paula Kluth, in her article “Everyone Can do Something,” gives additional support to the concept that service-learning is differential education in action, and works well to meet the needs of the slower learner (as well as the gifted learner, as Lewis states):

Why Use Service Learning?

Service then, has affective and cognitive benefits. For this reason, researchers and educators alike are recommending it, using it, and studying it for every population from students with learning disabilities to English language learners to students who need enrichment. Yoder et al. (1996), for instance, found that students with learning disabilities who participated in service learning acquired increased self-knowledge and improved communication, problem solving and social skills. And Terry (2000) has noted that students who are labeled as gifted in certain areas gain confidence and learn perseverance, responsibility, and new perspectives on relationships from service projects.

Clearly, service is an effective teaching tool. It is an especially effective teaching tool for the inclusive classroom as it allows educators to easily differentiate instruction. There are opportunities for different students to engage in different tasks, strive for different goals, address different skills, and pursue individual passions. In addition, a service learning curriculum allows different teachers to work together toward common goals. Special and general educators can co-plan and collaborate on lessons and work together to teach communication skills (e.g., writing letters, holding meetings, giving a speech); functional or life skills (e.g., taking the subway, making a phone call, asking for directions, making change); social skills (e.g., working as part of a team), and standards-based academic skills (e.g., learning about government, reading different types of text) to all students (not just those with disabilities). And teachers across subject areas will find natural opportunities for collaboration as service learning projects almost always address standards and objectives from a range of content areas.

<http://www.paulakluth.com/readings/differentiating-instruction/article-differentiate-servicelearn/> (This short article is well worth reading in its entirety also!)

This service-learning unit, as well as any well-designed service-project, will meet the needs of many kinds of learners. In many ways, service-learning is differentiated instruction at its finest!



NAD standards summary

Lesson	Skill(s)	J2E	Technology	NAD Curriculum Standards Connection	
				LA	Other
1 – Introduction					
2 – Web Authenticity		4.4, 5.3, 6, 6.2, 6.3, 6.6, 7.2, 8.3	Information literacy; Technology: 1, 3	Read: Responsibility/moral choice; Media Study skills/ references	
3 – Presentation	Speech	4.4, 6, 6.2, 6.3, 6.6, 7.1, 7.2, 8.1		Speak: speaking process/informal speaking Write: Modes of writing: Reflective - Journal (every lesson)	
4 – Water Accessibility Issues	Listening; watching	1.5, 7.1		Listen/view: responsibility/moral choice Media (evaluation, values, purpose)	Health: 3.3, 3.19, 10.3, 10.6, 10.8, 10.9
5 – Water Accessibility Issues	Essay writing; critical thinking skills	1.5, 4.2, 6.2, 7.1, 8.3, 9.1, 9.3	Technology: 1, 5, 6	Listen/view: responsibility/moral choice; Media Write: expository; responsibility/moral choice	Math: Measurement standards 1, 2, 3, 4, 5 Health: 10.3, 10.6, 10.8, 10.9 Art: 3.1, 3.2, 3.3, 3.5, 6.7
6 – Peer Review	Writing: editing, proofreading	3.2, 6.3, 7.1, 10.3	Technology: 1	Write: The writing process; grammar/mechanics	
7 – Bottled Water Issues	Critical thinking	1.5, 4.2, 4.4, 6.2, 6.3, 6.6, 7.1		Listen/view: responsibility/moral choice; Media (evaluation, values, purpose)	Health: 9.3, 10.3, 10.5, 10.6, 10.7,
8 – FLOW video	Viewing, critical thinking, writing / reflecting	1.5, 4.1, 6.2, 8.1		Listen/view: responsibility/moral choice; Media (evaluation, values, purpose)	Health: 10.3, 10.8, 10.9

NAD Standards, cont.

Lesson	Skill(s)	J2E	Technology	NAD Curriculum Standards Connection	
				LA	Other
9 – Make a Difference	Persuasive essay writing	1.6, 4.1, 4.2, 4.4, 5.1, 6.2, 6.3, 7.1, 7.2	Technology: 1, 3, 5, 6	Write: The writing process; persuasive writing; grammar/mechanics	Art: 3.1, 3.2, 3.3, 3.5, 6.7
9b- Persuade through Art	Art; interpretation and application of information	1.6, 2.6, 4.1, 4.4, 4.5, 6.2, 9.1, 9.3			
10 – Make a Difference II	Formal letter writing	1.6, 4.5, 7.1, 7.4, 10.3, 10.4	Technology: 1, 3, 5, 6	Write: Aims of writing; cause and effect; grammar/mechanics	
11 – Water Cleanliness	Technical writing	1.6, 6.3, 7.1, 8.3	Technology: 1, 5	Write: Aims of writing: process analysis; responsible /Moral choice; grammar/mechanics	Health: 3.3, 3.19, 10.8
12 – Water, Water Everywhere?	Reading, critical thinking, math (graph interpretation), geography (country identification)	1.6, 3.2, 4.1, 4.2, 4.4, 4.5, 6.2, 6.3, 8.1, 8.3	Technology: 1, 3, 5		Geography; social sciences (graph interpretation)
13 – Research paper/Thesis statement	Research paper writing / Thesis statements	1.6, 4.4, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2	Technology: 1, 3, 5	Read: References Write: pre-writing, drafting	
14 – Research paper / Outline	Research paper writing / outline	1.6, 4.4, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2	Technology: 1, 3, 5	Read: References Write: pre-writing, drafting; (outlining)	
15 – Research paper / Sources	Research paper writing / documentation	1.6, 4.4, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2	Technology: 1, 3, 5	Read: References Write: pre-writing, drafting	
16 – Research paper / writing	Research writing/	1.6, 4.4, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.4, 7.5	Technology: 1, 3, 5	Read: References Write: pre-writing, drafting; classifying, drawing conclusions, summarizing, etc.	
17 – Research paper/ Edit and refine	Research paper writing, editing	1.6, 4.4, 6.6, 7.1, 7.2, 7.5	Technology: 1, 3, 5	Write: revising, editing / proofreading	

NAD Standards, cont.

Lesson	Skill(s)	J2E	Technology	NAD Curriculum Standards Connection	
				LA	Other
18 – Project/ Research	Cooperative group work; critical thinking	1.6, 3.2, 4.1, 4.2, 4.4, 5.1	Technology: 1, 3, 5, 6		
19 – Project development/ feasibility study	Cooperative group work; development of citizenship; feasibility study	1.6, 3.2, 4.4, 6.2, 6.4, 7.1, 8.5, 8.6	Technology: 1, 3, 5, 6		
20 – Project/ proposal	Speech; cooperative group work	1.6, 3.2, 4.4, 6.2, 6.4, 7.1, 7.2, 8.5, 8.6	Technology: 1, 3, 5, 6	<i>Speak:</i> preparation; presentation; formal speaking	
21 – Project/ creation	Cooperative group work; critical thinking; service; decision making	1.6, 3.2, 4.4, 6.2, 6.4, 7.1, 8.5, 8.6	Technology: 1, 3, 5, 6	<i>Write, Read, View, Listen:</i> various standards based on individual group projects	
22 – Project launch		1.6, 3.2, 4.4, 6.2, 6.4, 7.1, 8.5, 8.6	Technology: 1, 3, 5, 6		
23 – Project presentation	Organization skills; tech skills; speech	1.6, 3.2, 4.4, 6.2, 6.4, 7.1, 8.5, 8.6	Technology: 1, 3, 5, 6	<i>Speak:</i> formal, public presentation	

HEALTH connections (numbered for easier identification)

CONTENT AREA 6: DISEASE PREVENTION

- 3.3 Describe/identify ways that diseases may be spread.
- 3.19 Identify major types and causes of chronic diseases.

CONTENT AREA 9: CONSUMER HEALTH

- 9.3 Analyze techniques that advertisers use to make products appealing to consumers.

CONTENT AREA 10: ENVIRONMENTAL HEALTH

- 10.3 Explain how the effects of disharmony in nature have marred God’s image in nature.
- 10.4 Describe how the restoration of man to God’s image will result in a renewed reverence for God’s creation.

Freedom of Water

10.5 Recognize how preservation of the environment will enhance the quality of life.

10.6 Analyze Biblical principles of “stewardship” in the care of natural resources.

10.7 Describe methods for conservation of natural resources.

10.8 Identify Sources of pollution:

3. Water.

10.9 Describe the ways that these pollutants adversely affect our environment and our health, as well as identify solutions for their prevention and their removal.

MATH connections (general) (numbered for easier reference)

Algebra standard:

- Use mathematical models to represent and understand quantitative relationships;

Measurement standard:

- Apply appropriate techniques, tools, and formulas to determine measurements
- Understand measurable attributes of objects and the units, systems, and processes of measurement;

Measurement Standard (grades 9-12) (numbered for easier reference)

All students should be enabled to—

1. *Understand measurable attributes of objects and the units, systems, and processes of measurement*
2. Make decisions about units and scales that are appropriate for problem situation involving measurement.
3. *Apply appropriate techniques, tools, and formulas to determine measurements*
4. Analyze precision, accuracy, and approximate error in measurement situations;
5. Understand and use formulas for the area, surface area, and volume of geometric figures, including cones, spheres, and cylinders;
6. Apply informal concepts of successive approximations, upper and lower bounds, and limit in measurement situations;
7. Use unit analysis to check measurement computations.

Problem Solving Standard (grades 9-12) (numbered for easier reference)

All students should be enabled to—

1. Build new mathematical knowledge through problem solving;
2. Solve problems that arise in mathematics and in other contexts;
3. Apply and adapt a variety of appropriate strategies to solve problems;
4. Monitor and reflect on the process of mathematical problem solving.

Integrating Vocational and Technology

Education into the Existing Curriculum (NAD curriculum guide, numbered for easier reference)

1. Technology use in daily assignments, projects, and presentations in the core classes of the curriculum.
2. Introduction and exploration of career and higher education options.
3. Use of Internet resources for research and class projects.
4. Inclusion of family and consumer science related concepts in the senior religion: personal relationships, money management, housing, parenting, careers, etc.
5. Incorporation of nutrition and health concepts in science and physical education/health classes.
6. Development of leadership skills in many co-curricular activities — clubs, student organizations, athletics, outreach and ministry programs.
7. Participation in Work Experience programs.

ART CONNECTIONS:

ESSENTIAL LEARNINGS (numbered for easier reference)

Drawing I

The student will:

1. Show ability to draw from life, not from copying.
2. Demonstrate knowledge of face and body proportions.
3. Show knowledge of elements and principles of design using a variety of drawing media.
4. Know basic development of Western art and the contribution of Christianity.
5. Be able to apply knowledge of the structure of design to their own compositions.
6. Apply knowledge of the structure of design to discussion and critique of their own and others' artwork.
7. Create a portfolio of work showing personal development of technique, creativity, and understanding of the process of drawing.
8. Demonstrate the concept, "Whatever your hand finds to do, do it with your might." Eccl. 9:10.

**"Whatever your HAND
finds to do, do it
with your might."**

Content Standard 3.0

Choosing and evaluating a range of subject matter, symbols

- 3.1 Demonstrate the use of life surroundings and personal experiences to express ideas and feelings visually.
- 3.2 Interpret the environment through art.
- 3.3 Invent original and personal imagery to convey meaning and not rely on copying, tracing, patterns or duplicated materials.
- 3.5 Apply steps used in planning and developing subjects, symbols and ideas in artworks to show advanced problem solving skills in real world situations.

Content Standard 6.0

Freedom of Water

Making connections between visual arts and other disciplines.

6.7 Understand that art work has an impact on society.

Journey to Excellence Goals, by lesson

SDA-NAD Standard #	Lesson numbers	K-12 Education Goals and Essential Core Elements
J2E 1		Seventh-day Adventist North American Division: www.journeytoexcellence.org Acceptance of God <i>Surrender one's whole life to God; develop a relationship with Jesus Christ; and allow the Holy Spirit to work in one's life.</i>
J2E 1.1		Accept God as the Creator and the Redeemer.
J2E 1.2		Have a growing knowledge of God's Word and enjoyment in its study.
J2E 1.3		Embrace God's gift of grace by accepting Christ as one's personal Savior.
J2E 1.4		Discover the importance and power of prayer and faith in one's relationship with Jesus.
J2E 1.5	4, 5, 7, 8	Value God's revelation of Himself through inspired writings and creation.
J2E 1.6	9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23	Respond to God's love by using one's spiritual gifts to serve others.
J2E 1.7		Recognize God gave the Ten Commandments to show us how to love Him & each other.
J2E 1.8		Value and participate in worship alone and with others.
J2E 2		Commitment to the Church <i>Desire to know, live and share the message and mission of the Seventh-day Adventist Church.</i>
J2E 2.1		Be an active participant in one's local church.
J2E 2.2		Understand how the organization of the Adventist Church facilitates its mission.
J2E 2.3		Become involved in spreading the gospel throughout the world.
J2E 2.4		Accept the fundamental beliefs of the Seventh-day Adventist Church.
J2E 2.5		Appreciate the heritage of the Seventh-day Adventist Church.
J2E 2.6		Relate to lifestyle choices and cultural issues based on biblical principles.
J2E 3		Interpersonal Relationships <i>Develop a sense of self-worth, skills in interpersonal relationships, an understanding of the responsibilities of family membership and the ability to respond with sensitivity to the needs of others.</i>
J2E 3.1		Recognize that God's ideal for the basic unit of society is the family.
J2E 3.2	6, 12, 18, 19, 20, 21, 22, 23	Develop an appreciation for the diversity of individuals.
J2E 3.3		Acquire knowledge, attitudes and skills essential to meeting family responsibilities, whether living alone or with others.
J2E 3.4		Recognize that God's unconditional love gives one self-worth.
J2E 3.5		Value sexuality in the context of God's ideal.
J2E 4		Responsible Citizenship <i>Develop an understanding of cultural and historical heritages, affirm a belief in the dignity and worth of others and accept responsibility for local, national and global environments.</i>
J2E 4.1	8, 9, 12, 18	Exhibit concern and sensitivity for other peoples and cultures.
J2E 4.2	5, 7, 9, 12, 18	Participate actively in local, national and global communities.
J2E 4.3		Understand the functions of governments and their impact on individuals and society.
J2E 4.4	2, 3, 7, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23	Use a biblical perspective to analyze history and current events.
J2E 4.5	10, 12, 18	Assume an active role in nurturing and preserving God's creation.
J2E 5		Healthy Balanced Living <i>Accept personal responsibility for achieving and maintaining optimum physical, mental and spiritual health.</i>
J2E 5.1	9, 18	Recognize that God's ideal for quality living includes a healthy lifestyle.
J2E 5.2		Incorporate into one's lifestyle the principles that promote health: nutrition, exercise, water, sunlight, temperance, air, rest, trust in God.
J2E 5.3		Avoid at-risk behaviors.
J2E 5.4		Apply Christian principles in recreation and sports.
J2E 5.5		Achieve a balance in work/leisure; balance physical, mental, social & spiritual activities.
J2E 5.6		Recognize the interaction of physical, mental & spiritual health with emotional & social well-being.

Journey to Excellence Goals by lesson, cont.

J2E 6		Intellectual Development <i>Adopt a systematic, logical and biblically-based approach to decision-making and problem-solving when applied to the developing body of knowledge.</i>
J2E 6.1		Broaden intellectual abilities through the study of God's Word.
J2E 6.2	2, 3, 5, 7, 9, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23	Use critical and creative thinking skills in "real-world" experiences.
J2E 6.3	2, 3, 6, 9, 11, 12, 13, 14, 15, 16	Develop one's intellectual potential in natural sciences and mathematics; arts and humanities; social sciences and applied arts.
J2E 6.4	13, 14, 15, 19, 20, 21, 22, 23	Utilize effective study techniques to locate, organize and learn information.
J2E 6.5	ALL lessons	Apply the principles of life-long learning.
J2E 6.6	2, 3, 13, 14, 15, 16, 17	Approach all intellectual pursuits from a biblical perspective.
J2E 7		Communication Skill <i>Recognize the value and importance of effective communication and develop the requisite skills.</i>
J2E 7.1	3, 4, 5, 6, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23	Communicate effectively through the avenues of reading, writing, listening, speaking and non-verbal language.
J2E 7.2	2, 3, 9, 13, 14, 15, 16, 17, 20	Apply a Christ-centered perspective to all forms of personal expression and media.
J2E 7.3		Understand how sensitivity to the differences of others affects communication.
J2E 7.4	10, 16	Recognize how media and information technology impact communication.
J2E 7.5	16, 17	Utilize communication skills to enhance one's Christian witness.
J2E 8		Personal Management <i>Function responsibly in the everyday world using Christian principles of stewardship, economy and personal management.</i>
J2E 8.1	3, 8, 12	Develop responsible decision-making skills.
J2E 8.2		Appropriately manage one's personal finances.
J2E 8.3	2, 5, 11, 12	Acquire skill in the use of technologies.
J2E 8.4		Develop basic home-management skills.
J2E 8.5	19, 20, 21, 22, 23	Value cooperation and teamwork when interacting in groups.
J2E 8.6	19, 20, 21, 22, 23	Develop conflict resolution skills.
J2E 8.7		Manage time effectively.
J2E 9		Aesthetic Appreciation <i>Develop an appreciation of the beautiful, both in God's creation and in human expression, while nurturing individual ability in the fine arts.</i>
J2E 9.1	5	View God as the Author of beauty, both in His creation and in human expression.
J2E 9.2		Employ biblical principles as the basis for appreciation and expression of creative and performing arts.
J2E 9.3	5	Develop fine art talents through practice, performance and presentation.
J2E 9.4		Use aesthetic expression as a means of communication and service.
J2E 10		Career and Service <i>Develop a Christian work ethic with an appreciation for the dignity of service.</i>
J2E 10.1	6	Develop an awareness of career options and opportunities in a changing world, as well as in the church.
J2E 10.2		Recognize the role of useful work in personal development and maintaining self-worth
J2E 10.3	ALL LESSONS	Develop skills that will enhance employability.
J2E 10.4	ALL LESSONS	Experience the joy of serving others.
J2E 10.5		Identify one's interests, abilities and values, understanding their relationship to career options.
J2E 10.6	ALL LESSONS	Always put forth one's best effort in every task.

Materials List



Suggested materials for this unit:

- “Jerry can” or equivalent that will hold 40 lbs of water (lesson 5).







- Dixie cups (lesson 7).



- Notebook/binder (if desired).
- Journal (if desired and if an online/digital blog is not used).
- Note cards (for research).

Drinking Water Testing (More Products)

	
City Water Test Kit This do-it-yourself water testing kit allows you to check your drinking water for eight common contaminants.	Well Water Test Kit Ideal for individuals who get their water from a private well. Tests for 10 harmful contaminants.
\$19.95 x 1  Add More Info	\$24.95 x 1  Add More Info

- Water-quality testing kit (lesson 11).

Technology Requirements



Suggested technology for this unit:

Hardware

- Computers (desktop/laptop).
- Printer.
- Projector/screen.
- Internet.
- Smart Board (if available).
- Hand-held devices such as cell phones, I-pods, etc., to be used by students (optional).

Software

- Word or other word processing software.
- PowerPoint.
- Publisher or other desktop publishing software.
- Movie-making software (as needed).
- Digital camera.
- Photoshop or other photo-editing program as needed.

Resources

Bottled Water:

- <http://www.greenchipstocks.com/articles/the-environmental-and-economic-impacts-of-bottled-water/787> The Environmental and Economic Impacts of Bottled Water (site referenced in the lessons); explanation and short, informative video about bottled water
- <http://www.storyofstuff.org/movies-all/story-of-bottled-water/> This is the original site for the bottled water video (linked above), and includes many great resources such as links to the graphics, additional information about the bottled water industry, etc.
- <http://tappedthemovie.com/> This would be an excellent movie to purchase to extend the class' information and understanding about the bottled water industry and its far-reaching affects (trailer available online; download or DVD available for purchase)
- <http://www.viewsoftheworld.net/?p=1292> This site includes tremendous visual representations of the state of the world's water, related to bottled water and other issues
- <http://academic.evergreen.edu/g/grossmaz/klessill/> This website was produced by college geography students and is an example of what students could do for a project
- <http://www.allaboutwater.org/environment.html> This site suggests solutions for the environmental impacts of the bottles used in the bottled water industry

Trailer for "FLOW": <http://www.youtube.com/watch?v=LGD9D4J0lag>

Water crisis: <http://www.youtube.com/watch?v=t3RL0vbWZLg> (FLOW) For Love of Water (1 hour 23 minutes); video to be played in lesson 8 (2 class periods). Informative video about water issues.

Political/social/science and Water

<http://www.enviroliteracy.org/category.php/14.html> GREAT site for info on water/political/social science, etc. This site is used in lesson 12, but can be explored further for its incredible resources

Survey/polling tools:

<http://www.polleverywhere.com/>

<http://polldaddy.com/>

<http://www.stellarsurvey.com/>

<http://fluidsurveys.com/>

<http://www.obsurvey.com/>

<http://urtak.com/>

<http://vorbeo.com/>

<http://www.micropoll.com/>

<http://flisti.com/>

<http://www.quizsnack.com/>

<http://pollmo.com/>

Rubrics:

Freedom of Water

Technical Writing: http://www.jalc.edu/assessment_initiative/pdfs/rubric_technical_writing.pdf

Technical writing: <http://dcsd.k12.nv.us/filedb/file703.pdf>

Technical writing, 6-traits:

<http://esu4sixtraitwriting.wikispaces.com/file/view/6traitsimplifiedtechrubric.pdf>

Technical writing grades 5-12:

<http://ocsdcurriculumteams.wikispaces.com/file/view/technical+writing+rubric.pdf>

Essay relating to Water and Freedom:

<http://www.123helpme.com/waters-representation-of-freedom-in-twins-the-adventures-of-huckleberry-finn-view.asp?id=150982> Short paper on “Water’s Representation of Freedom in Twain’s The Adventures of Huckleberry Finn”

General links for information about water:

- <http://matadornetwork.com/change/40-shocking-facts-about-water/> 40 Shocking Facts about Water; EXCELLENT site for demonstrating the “Freedom of Water”
- <http://workawesome.com/office-life/how-to-save-water/> “How to Save Water One Work-Day at a Time”; more statistics about water and its availability; link to “Online Water Footprint Calculator”
- <http://www.waterfootprint.org/?page=cal/WaterFootprintCalculator> Water Footprint Calculator; this online calculator takes into account not just the water we drink and use to brush our teeth, but all the water consumed by all the things we eat and use, etc.
- <http://water.org/water-crisis/water-facts/water/> Water Facts; facts, including visual representations of data, about water and economics, water and children, water and disease, etc. Excellent reference.
- <http://www.charitywater.org> Charity Water is a non-profit organization bringing clean, safe drinking water to people in developing countries.
- <http://www.givewell.org/international/technical/additional/Standard-of-Living> “Give Well: Standard of Living in the Developing World”; information about more than just water issues, but water issues are addressed briefly.

General Service-Learning Sites:

- <http://www2.byui.edu/ServiceLearning/subpages/fgdefinition.htm> Service Learning - what it is and isn’t; BYU
- <http://www.brookespublishing.com/newsletters/downloads/gent.pdf> Excerpt from the book Great Ideas: Using Service Learning and Differentiated Instruction to Help Your Students Succeed, by Pamela J. Gent, PhD