Guided Inquiry Lesson
LIBM 461
April, 2015
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Lesson Plan

Lesson Title: Plastic Bags: Helpful to Humans, Harmful to Planet Earth

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Curriculum/Subject of Lesson: The subject of the lesson is plastic bags, how they are harmful to the environment and hence, to humans, and what can be done about them.

Grade Level of Lesson: 7th grade

Lesson Duration: 6 weeks

Lesson Materials/Resources: please see _Lesson Evaluation/Assignments/Handouts/Teaching Materials_

Lesson Overview/Rational: Seventh grade students at Target Range School have noticed a build-up of plastic bags pinned by wind to a chain-link fence on the school grounds. They wonder where the bags came from, if there are many more on other fences in the Missoula area and what the negative effects of the bags in the environment may be. Broadening their perspective, they also wonder if this is a problem around the globe and if so, what can be done to decrease the presence of the bags.

This lesson was created to raise student awareness of the problems associated with plastic bag use both locally and globally. Students will research one or more aspects of this problem, e.g. :

- What happens to the environment during the process of creating plastic bags
- What happens to bags after their use
- How do bags effect the health of animals and fish on land and in the oceans
- How are oceans effected by bags
- What countries have banned plastic bag use, why and how
- How could we get by without using plastic bags
- How many bags are used per day in Missoula, in the U.S. and globally
- How can we act locally to decrease or eliminated plastic bag use in Missoula
- What does it mean to be a global citizen?

- What is our relationship to our environment both locally and globally

An emphasis of this lesson is on making the connection that our individual actions are important, and an awareness of this, especially in terms of our environment, is essential to the health of the planet. Students learn that each and every action matters and has a consequence, and that each of us has a local and global responsibility to do our part to help our environment.

The steps of The Big Six information process will be used to show students there is a specific way to research. Students will discover information that passes the RADCAB (Reliable, Authoritative, Detail, Current, Accurate, Bias) evaluation criteria, and synthesize that information into a product of choice. Some examples of products are:

- information campaign at TR school
- editorial letter to local newspaper
- Physical depiction/representation of the life-cycle of a plastic bag that ends up in the ocean
- letter and/or presentation to the mayor and/or city council of Missoula
- math presentation of data obtained re bag use in other countries
- drama, reader's theater expression illustrating how other countries have passed plastic bag legislation
- diorama expressing effects of bags on animals and/or fish, etc.

Please see *Standards A-E.* section for curriculum and standards this lesson meets.

Essential Questions/Focusing Questions of Lesson: Plastic bags are helpful to humans but harmful to planet earth. What are the problems associated with plastic bag use and how can we act locally and as global citizens to improve the plastic bag problem?

Goals: Students will:

- be able to articulate the problems with plastic bag use.
- learn and effectively use the Big 6 information process.
- understand what it means to be a *global citizen*.
- learn they have a responsibility to make choices that contribute to a healthy environment.
- Understand that citizens at local, national and worldwide levels can organize to effect change, including by designing and passing legislation.

Objectives: students will:

- be able to research specific aspects of a broader information question, e.g. how legislation is passed.
- adapt personal habits to include substitution of the use of material bags for plastic bags.
- be able talk to their families and friends accurately and effectively about the effects of plastic bag use on the environment.
- identify and practice the steps of an inquiry process.
- Identify and be able to use the skills of:
    1. using bold print and other text features to understand the organization of information.
    2. Develop a list of keywords, synonyms, subject headings for searching
    3. Use dates, subject headings or search terms to select and narrow a topic
    4. Move from general to specific in research
    5. Search items in specific locations e.g. title, author, subject
    6. Link more than one search term using Boolean operators (and, or, not)
    7. Use a table of contents and index to decide whether a source has the needed information
    8. Note taking, underlining, summarizing, paraphrasing, outlining, skimming
- organize information from multiple online sources, including databases.
- evaluate information using RADCAB criteria.
- effectively use technology, with a focus on website navigation, to answer information questions.

Standards A.-E.:

Montana Standards for Information Literacy/Library Media

Standard 1 – To satisfy the requirements of Information Literacy/Library media Content Standard 1, a student must: _identify the task and determine the resources needed._

 7th Grade Benchmark 1: Define the problem.

Library. 7.1.DP.1.A – Formulate steps needed to solve the problem or task.

Library.7.1.DP.1.B – Paraphrase task.

Library.7.1.DP.1.C – Broaden or narrow topic.

Library.7.1.DP.1.D – Identify keywords.

Library.7.1.DP.1.E – List information requirements of the task.

7th Grade Benchmark 2: *Identify the types of information needed*.

   Library.7.1.IT.2.C – Identify possible resources to solve the problem or task.

   Library.7.1.IT.2.C – Identify useful resources.

7th Grade Benchmark 3: *Evaluate and select appropriate resources.*

   Library.7.1a.ER.3.A – Identify appropriately current resources.

   Library.7.a.1ER.3.B – Identify point of view and bias in resources.

   Library.7.a.1ER.3.C – appraise authority and usefulness of resources.

   Library.7.a.1ER.3.D – select the best resources

Standard 2 – Locate multiple resources using search tools.

   7th Grade Benchmark 1: *Locate multiple resources using search tools.*

   Library.7.2LR.1.A – Utilize library facility.

   Library.7.2LR.1.B – Use a variety of available search tools and methods.

   Library.7.2LR.1.C – Use search techniques to locate resources.

   Library.7.2LR.1.D – Locate resources.

   7th Grade Benchmark 2: *Evaluate resources.*

   Library.7.2ER.2.A - Identify point of view and bias in resources.

    Library.7.2ER.2.B – Judge usefulness of resources (relevant, appropriate,

                    detail, currency, authority, and bias).

   7th Grade Benchmark 3: *Locate information within multiple resources.*

   Library.7.2LI.3.A - Use glossaries and tables of contents.

   Library.7.2LI.3.B – Use print and digital indexes.

   Library.7.2LI.3.C – Identify keywords and keyword phrases by skimming and

                    scanning.

   Library.7.2LI.3.D. – *Record location of information within resources.*

7th Grade Benchmark 4: *Extract information from resources needed to solve the*

problem.

Library.7.2.EI.4.A – Read, listen, and view with purpose to accomplish task.

Library.7.2.EI.4.B – Summarize and paraphrase relevant information.

Library.7.2.EI.4.A – Cite each source.

Library.7.2.EI.4.A – Use note taking to transfer information.

7th Grade Benchmark 5: *Organize and manage information to solve the problem.*

Library.7.2.OI.5.A – Arrange information into a format to accomplish task.

7th Grade Benchmark 6: *Create a product that presents findings.*

Library.7.2.CP.6.A – Construct a product that meets task criteria and is audience

appropriate.

Library.7.2.CP.6.A – Present final product in appropriate format.

Standard 3: Assess the quality and effectiveness of the product.

7th Grade Benchmark 1: *Assess the quality and effectiveness of the product.*

Library.7.3.AQ.1.A – Evaluate product's strengths and weaknesses according to task criteria.

Library.7.3.AQ.1.B – Criteria final product.

Library.7.3.AQ.1.C – Identify areas for improvement of the product.

7th Grade Benchmark 2: *Evaluate how the process met the need for information.*

Library.7.3.EP.2.A – Examine task completion process.

Library.7.3.EP.2.A – Identify areas for improvement in the process

Standard 4 – A student must use information safely, ethically, and legally.

7th Grade Benchmark 1: Legally obtain, store, and disseminate text, data, images, or sounds.

Library.7.4.LO.1.A – Recognize the elements that comprise intellectual property.

Library.7.4.LO.1.B – Recognize current laws and policies regarding information use.

7th Grade Benchmark 2: Appropriately credit ideas and works of others.

Library.7.CI.2.A – Use paraphrasing and summarizing correctly.

Library.7.CI.2.B – Produce components for a citation format.

Library.7.CI.2.C – Credit the intellectual property of others.

Library.7.CI.2.D – Adhere to copyright laws.

Montana Technology Standards and Essential Learning Expectations

Technology Content Standard 1: *The student will use digital tools and resources for problem solving and decision making.*

Benchmark 1 - end of grade 8: Use multiple approaches to explore alternative solutions.

ELE - A. identify a problem
B. investigate using multiple approaches with digital tools (e.g., Geographic Information System (GIS), digital camera, computer application)
C. explore alternative solutions proficiently

Benchmark 2 – end of grade 8: Collect relevant data and information on a subject from a variety of digital resources.

ELE - B. use online sources to access information, with appropriate citation
C. perform searches in a database (e.g., browse, sort, filter, search on selected Criteria, delete data, enter data)

Benchmark 3 – Analyze and ethically use data and information from digital resources

ELE - D. describe copyright law to protect the ownership of intellectual property, and explain possible consequences of violating the law
E. describe fair use guidelines for using copyrighted materials (e.g., images, music, video, text) in school projects

Benchmark 4 – Compare accuracy, diversity, relevance and point of view, including Montana American Indians, of digital information.

ELE - A. use multiple sources to determine the accuracy of information (e.g., authenticity, validity)

B. use multiple sources to determine the diversity of information (e.g., Wikipedia vs. the official tribal Web site)

C. use multiple sources to determine the relevance of information
D. determine point of view of multiple sources

Benchmark 5 – Share data and information ethically and appropriately cite sources

ELE - A. share data and information in an ethical manner from digital resources
B. cite sources with appropriate formatting, with guidance

Technology Content Standard 2 – *A student must collaborate and communicate globally in a digital environment.*

Benchmark 3 – Communicate the results of research and learning with others using digital tools.

ELE – A. observe and discuss digital presentations

Technology Content Standard 3 – *A student must apply digital tools and skills with creativity and innovation to express his/herself, construct knowledge and develop products and processes.*

Benchmark 1 – Apply a variety of digital tools for personal and group expression.

ELE – create an original work using multiple digital tools for personal and/or group Expression

Benchmark 2 – Use a variety of digital tools to create a product

ELE - A. gather knowledge or information on a topic from a variety of digital resources including data, graphics, or events
B. design an original product that demonstrates the knowledge learned from the research
C. develop a product explaining the information or concepts learned (e.g., pamphlet on safety guidelines, Web quest, movie, slideshow)
D. present the product to a targeted audience using a variety of digital tools

Technology Content Standard 4 – *A student must possess a functional understanding of technology concepts and operations.*

Benchmark 1 – Apply and refine the skills needed to use communication, information and processing technologies.
ELE - A. click on icons, buttons and menus to produce a desired outcome

B. demonstrate developmentally appropriate keyboarding skills
C. locate and correctly use parts of various digital devices (desktop computer, laptop

computer, digital cameras, Geographic Information System (GIS), probeware, etc.)
D. effectively use operating systems and user interfaces (file management, settings, control panel, etc.)

Benchmark 2 – Use appropriate terminology when communicating about current technology

ELE – A. use appropriate terminology when communicating about current technology

Benchmark 3 – Transfer current knowledge to learning of new technology skills.

ELE – A. use existing knowledge to explore and implement new technologies as appropriate from situation to situation.

AASL Standards for the 21st Century Learner

Learners use skills, resources and tools to:

1 - Inquire, think critically, and gain knowledge.
2 - Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.
3 - Share knowledge and participate ethically and productively as members of our democratic society.
4 - Pursue personal and aesthetic growth

ISTE Standards/NETS for Students

1. *Creativity and innovation*
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
   a. Apply existing knowledge to generate new ideas, products, or processes
   b. Create original works as a means of personal or group expression
   c. Use models and simulations to explore complex systems and issues
   d. Identify trends and forecast possibilities

2. *Communication and collaboration*
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
   a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
   b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats

c. Develop cultural understanding and global awareness by engaging with learners of other cultures
d. Contribute to project teams to produce original works or solve problems.

3. Research and information fluency
Students apply digital tools to gather, evaluate, and use information.
a. Plan strategies to guide inquiry
b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
e. Process data and report results

4. Critical thinking, problem solving, and decision making
Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
a. Identify and define authentic problems and significant questions for investigation
b. Plan and manage activities to develop a solution or complete a project
c. Collect and analyze data to identify solutions and/or make informed decisions
d. Use multiple processes and diverse perspectives to explore alternative solutions

5. Digital citizenship
Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
a. Advocate and practice safe, legal, and responsible use of information and technology
b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
c. Demonstrate personal responsibility for lifelong learning
d. Exhibit leadership for digital citizenship

6. Technology operations and concepts
Students demonstrate a sound understanding of technology concepts, systems, and operations.
a. Understand and use technology systems
b. Select and use applications effectively and productively
c. Troubleshoot systems and applications
d. Transfer current knowledge to learning

Montana Content Standards for Social Studies

Content Standard 1—Students access, synthesize, and evaluate information to communicate and apply social studies knowledge to real world situations.

Content Standard 2—Students analyze how people create and change structures of power, authority, and governance to understand the operation of government and to demonstrate civic responsibility.

Content Standard 3—Students apply geographic knowledge and skills (e.g., location, place, human/environment interactions, movement, and regions).

Content Standard 4—Students demonstrate an understanding of the effects of time, continuity, and change on historical and future perspectives and relationships.

Content Standard 5—Students make informed decisions based on an understanding of the economic principles of production, distribution, exchange, and consumption.

Montana Content Standards for Science

Content Standard 1 - Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate the results and form reasonable conclusions of scientific investigations.

Content Standard 2 – Students, through the inquiry process, demonstrate knowledge of properties, forms, changes and interactions of physical and chemical systems.

Content Standard 3 – Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.

Content Standard 4 - Students, through the inquiry process, demonstrate knowledge of the composition, structures, processes and interactions of Earth's systems and other objects in space.

Montana Content Reading Standards for Informational Text (7th Grade)

Key Ideas and Details

1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
5. Analyze the structure an author uses to organize a text, including how the major s ections contribute to the whole and to the development of the ideas.
6. Determine an author's point of view or purpose in a text, including those by and about American Indians, and analyze how the author distinguishes his or her position from that of others.

Integration of Knowledge and Ideas

7. Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).
8. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. Include texts by and about American Indians.
9. Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts. Include texts by and about American Indians.

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Montana Content Standards for Writing (7th grade)

Text Types and Purposes

2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the , organization, and analysis of relevant content.
a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), a nd multimedia when useful to aiding comprehension.
b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.

d. Use precise language and domain -specific vocabulary to inform about or explain the topic.

e. Establish and maintain a formal style.

f. Provide a concluding statement or section that follows from and supports the information or explanation.

Research to Build and Present Knowledge

7. Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation. Include sources and/or topics by and about American Indians.

8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

Technology Used: World Wide Web, desktop computers, iPads

A.-D. Collaboration: The Teacher Librarian (LMS) will focus on research techniques and the middle school Language Arts teacher (ELA) will assist in writing and synthesis of information into a viable product. The Social Studies teacher (SS) will address impacts of an unhealthy environment on human societies and what it means to be a global citizen. The Science (ST) teacher will assist in instances where students choose to create products that focus on scientific technique. The Math teacher (MT) will teach data collection and organization.

Anticipatory Set/Object Based Learning (Lead-in): Students will be shown six educational videos designed to inform viewers of the plastic bag problem. They will also be shown images of plastic bags littering the Missoula area. A discussion of the videos will follow their showing. Actual plastic bags will be present to promote object-based learning, specifically to get students thinking about plastic bag use, including their own.

Process Model and Information and Technology Literacy Activities:

(Step by Step Activities and Process Models)

Big 6 Objectives

1) **Task Definitions**
   - *Defining the problem* - In inquiry circles, students identify how plastic bags are helpful to humans and what the environmental problems are associated with disposal. They will then define their information problem as finding ways to work as global citizens to improve the problem of plastic bags in the environment.

- *Identifying the information needed* – students work in their inquiry circles to brainstorm what type of information they need to understand the problems associated with plastic bags in the environment, and to take action as responsible global citizens.

2) **Information Seeking Strategies:**
   - *Determine the possible sources* – students brainstorm in inquiry circles regarding what sources might fit the RADCAB criteria. Domain names are discussed and those most helpful are identified. Video sources such as YouTube and EdTED are discussed and students determine what types of sources within these two multi-media sites might pass RADCAB criteria.
   - *Select the best source* – students explore the sites provided to get them started and determine which ones are useful.

3) **Location and Access:**
   - *Locate sources* – Students use a (provided) keyword/subject search directory to find sources that will best meet their informational needs. They independently gather information from sources, inlcuding online databases, OPAC and electronic media.
   - *Find information within sources* – students use the skills of scanning for information, noticing organizational structure of information, using subtitles/indexes/outlines/bold-type, etc. to find relevant information.

4) **Use of Information**
   - **Engage (e.g. read, hear, view) –** Students will hone search skills by reading, listening to and viewing a variety of media sources, e.g. streaming video, websites, podcasts.
   - **Extract relevant information –** Students will use the RADCAB method of determining what sources are acceptable and useful to their informational needs. Students will paraphrase the main idea from these sources and will cite all sources.

5) **Synthesis**
   - **Organize information from multiple sources –** students will use a graphic organizer to organize information in a clear, coherent matter. From this organizer and the "Plastic Bag/Global Citizen" five-paragraph outline, students will write a five paragraph paper and choose a means for presenting this information in a personally designed product.
   - **Present the result –** Students will present information in an organized, clear and coherent manner.

6) **Evaluation**

- **Judge the result (effectiveness) - –** Using the *Self-Evaluation* (Artifact 1), students assess their product for completeness, strengths and weaknesses. Using the unit rubric, teachers assess student effectiveness in using the Big 6 process model and the actual product at the end of the unit. The ELA teacher assesses the five-paragraph paper.
- **Judge the process (efficiency) –** Students develop criteria to determine the effectiveness of the process used to solve the problem and discuss their findings in inquiry circles.

Activities

This instructional unit is broad in scope, open and flexible. A key component is that students have a multitude of choices for crafting a product that is uniquely their own. Though all students are required to write a five-paragraph paper, how each student decides to express his/her learning in a presentation is open-ended and allows for creativity to blossom. Please see some examples, in addition to those found in the *Overview*, of suggested products in **artifact 8**.

Students also have maximum freedom in choosing what aspect of the plastic bag issue they'd like to research. They can choose a social aspect (Social Studies content), such as the problems associated with attempting to ban plastic bag use, a math aspect (Math content), such as comparing data regarding bag use and disposal/recycling in other countries to the U.S., or a science aspect (Science content) such as how bag use and disposal affects living things, etc. Students are encouraged to pursue their own interests in this multifaceted issue.

Because many skills are needed to navigate through the Big 6 inquiry process, many lessons are needed to equip students with the tools they need to be successful. The MLS will teach all lessons related to technology (OPAC review, RADCAB, Citation Machine, PowerPoint, Smart Searching, Database Navigation). Given that Math, Science, Social Studies and ELA classroom teachers will collaborate with the LMS to teach this unit, it will cover a six week period.

Lesson topics and activities include:

- Use of KWL charts
- Smart searching using Boolean phrases, moving from general to specific, appropriate search phrases/terms, etc.
- Using skills such as skimming, summarizing, paraphrasing, etc.
- The RADCAB method of evaluating sources
- Using Citation Machine to cite sources and create a reference list
- Note taking and information organization

- Journaling as a form of metacognition and ongoing evaluation of the information search process
- Big 6 Skills
- Creating a PowerPoint slideshow
- Field trips to local landfill and recycle center
- Interview with Target Range recycle team
- OPAC review
- Database navigation

Assessment is both formative and summative. The LMS will monitor student progress while students meet in inquiry circles, participate during lessons and conduct research. H/she will also assign journal reflections and respond in an ongoing process to journal entries, answering student questions and making suggestions to support learning. All five team members will be present for student presentations to assess students specifically on the aspect of student products that reflects the teacher's content area and teaching.

Lesson Closure/Object Based learning (Reflect Anticipatory Set):

Students visit the local landfill, binoculars in hand, to notice plastic trash bags in and around the area, and to talk with landfill managers.

Lesson Evaluation/Assignments/Handouts/Teaching materials:

Artifact 1 - Self-reflection on Inquiry

Name:

Date:

My Inquiry:

This is the way I learn
Check the following statements that most reflect how you learned in the past inquiry.

- I need to talk to others about my ideas.
- I need to have some quiet time alone.
- I need some time to think before I write anything down.
- I need some help getting going.
- I need to move around.

Give specific examples of the statement(s) here. When did you do this and how did it help you?

My inquiry tools -
Complete the sentence

Writing in my inquiry journal helped me to_____.

My inquiry log was useful because _____.

My inquiry circle helped me to_____.

My inquiry process:
This was easy for me: Because_____.

This was hard for me: Because_____.

Something I will do differently next time is_____.

because_____.

Artifact 2 – Student to Student Evaluation of Shared Presentations

Presenter(s):	Date:	
Title of Presentation:		
I learned		
Complete the sections below, giving evidence and reason to support your opinion.		
Effectiveness of presentation	**Presentation style**	**Interest and engagement**

Check one The presentation was effective. I learned something new and it helped me understand the topic.	What I liked about the presentation style was	What caught my attention was
The presentation was somewhat effective because		I was interested because
The presentation wasn't very effective because	I think they could have	I might have been more interested if

Notes:

Artifact 3 – Suggested Websites and Search Terms

Here are some websites that might help you get started on your research:

- http://www.theworldcounts.com/stories/interesting-facts-about-plastic-bags

- http://www.inspirationgreen.com/plastic-bag-stats.html

- http://www.environmentmassachusetts.org/sites/environment/files/reports/Bag%20Ban%20Fact%20Sheet%20_0.pdf

- http://mediamatters.org/research/2014/10/08/californias-plastic-bag-ban-myths-and-facts/201064

- https://www.facebook.com/banthebagmissoula/info?tab=page_info

- http://whichcountrieshavebannedplasticbags.blogspot.com/

Here are some search terms you can try:

- plastic bags facts

- plastic bags Missoula

- plastic bag solutions

- dangers of plastic bags

- plastic bags ocean life

- plastic bags animals

- plastic bag bans

- plastic bags bans in countries

Artifact 4 – Stop and Jot and Reference List Formats

STOP AND JOT
Source (URL):
Ideas and Questions
Source (URL):
Ideas and Questions

REFERENCE LIST

(Citations – include URL, author of website, date website was created or updated)

Artifact 5 – Inquiry Journal- Go Deep

Inquiry Journal: Go Deep	
After reading something important related to your question, close the URL and think about what you have read.	**Read and think**
Write what you recall in your inquiry journal. It is important to close the URL when you write your journal entry and to write from what you remember was important.	**Recall and write**
Some time later, read what you have written and add anything else you remember as important. Now you may want to go back to check on some facts.	**Review and add**
Think about what you have written and respond with your own ideas.	**Think and respond**

Artifact 6 – Paragraph Outline

PLASTIC BAG/GLOBAL CITIZEN 5-PARAGRAPH OUTLINE

If you have done your research well, you will have many more facts than necessary to write this paper. Please read through your notes carefully and pick out the information that is the most important, interesting, and best describes the aspect of the plastic bag problem that you have chosen to research.

Paragraph 1 – Introduction

- Hook (most interesting thing about the aspect you chose)_____

  _____

  _____

- Thesis statement (what is your main idea)_____

  _____

  _____

- So what? (why should I care about this – how does it impact my life?)_____

  _____

  _____

Paragraph 2 – Describe the problem

- Topic sentence_____

  _____

- Supporting facts (3-5)_____

  _____

  _____

  _____

  _____

  _____

  _____

- Conclusion_____

  _____

  _____

Paragraph 3 – More information about the problem

- Topic sentence_____

- Supporting facts (3-5)_____

  _____

  _____

  _____

  _____

  _____

  _____

- Conclusion_____

  _____

Paragraph 4 – How will you act as a global citizen to make this problem better

- Topic sentence_____

  _____

- Supporting facts (3-5)

  _____

  _____

  _____

  _____

  _____

  _____

  _____

Paragraph 5 – Conclusion

- Restate thesis, expand on "So what?", include other interesting facts not yet mentioned, summarize key ideas_____

_____

_____

_____

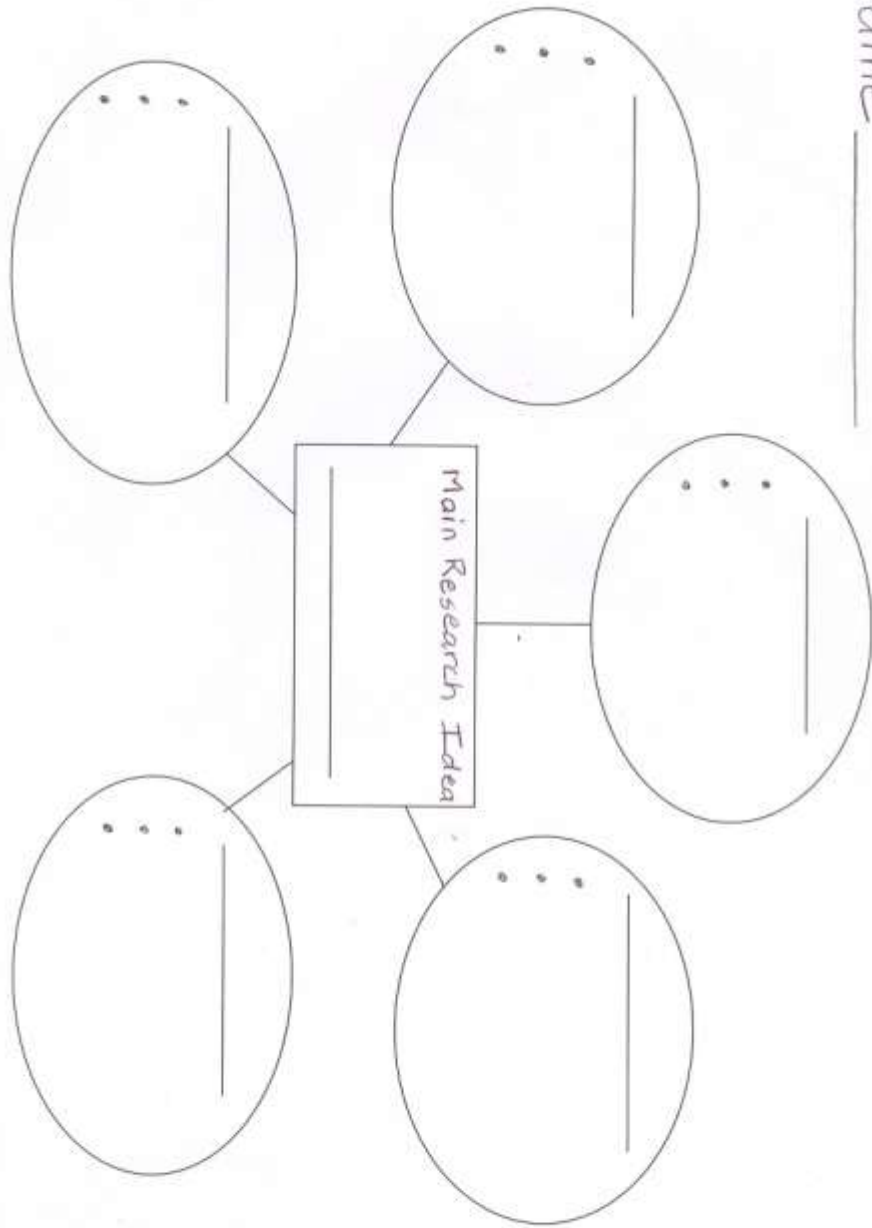_____

_____

_____

_____

Artifact 6 – Graphic Organizer

name _____

Main Research Idea

Artifact 7 – Rubric

7th Grade Plastic Bag Research Project

CATEGORY	Exemplary	Proficient	Partially Proficient	Incomplete	POINTS
Research Questions	3 points Wrote thoughtful, creative, well-worded, specific questions that were relevant to the assigned topic.	2 points Wrote well-worded, specific questions that were relevant to the assigned topic.	1 point Wrote questions which lacked focus, were poorly stated, and were not entirely relevant to the assigned topic.	0 points Wrote questions which lacked a specific focus, were poorly stated, and not relevant to the assigned topic.	__/3
Selection of Sources	3 points Identified highly appropriate sources	2 points Identified mostly appropriate sources in a variety of formats (books, journals, electronic sources).	1 point Identified a few appropriate sources but made little attempt to balance format types.	0 points Identified no appropriate sources in any format.	__/3
Note-taking & Keywords	3 points Extracted relevant information.	2 points Extracted mostly relevant information.	1 point Extracted a lot of information which wasn't relevant.	0 points Extracted Irrelevant information.	__/3
	Brainstormed keywords, categories, related terms that were effective in researching the questions.	Selected mostly effective keywords to use in researching the questions.	Selected some keywords that were not effective in researching the questions.	Selected no effective keywords to use in researching the questions.	
	Wrote notes including succinct key facts which directly answered all of the questions.	Wrote notes which included facts that answered most of the research	Wrote notes which included Irrelevant facts which did not answer the research questions.	Wrote notes which included a majority of facts which did not answer the research	

	3 points	2 points	1 point	0 points	
	research questions and were written in the student's own words.	questions and were written in the student's own words.	Some notes were copied directly from the original source.	questions. Most or all notes were copied word-for-word from the original source.	/3
Organization and Synthesis	Presented content clearly and concisely with a logical progression of ideas and effective supporting evidence.	Presented most of the content with a logical progression of ideas and supporting evidence.	Presented content which failed to maintain a consistent focus, showed minimal organization and effort, and lacked an adequate amount of supporting evidence.	Presented content which was unfocused, poorly organized, showed little thought or effort and lacked supporting evidence.	
	Selected an appropriate and effective format to creatively communicate research findings.	Selected an appropriate format to structure and communicate research findings.	Needed to select a more effective format to structure and communicate research findings.	Failed to select an appropriate format to communicate research findings.	/3
Citations/ Documentation	3 points	2 points	1 point	0 points	
	Cited all sources of information accurately to demonstrate the credibility and authority of the information presented.	Cited most sources of information in proper format and documented sources to enable accuracy checking.	Cited most sources of information improperly and provided little or no supporting documentation to check accuracy.	Created citations which were incomplete or inaccurate, and provided no way to check the validity of the information gathered.	/3
	Used information ethically all of the time.	Used information ethically most of the time.	Failed to use information ethically some of the time.	Failed to use information ethically.	

TOTAL POINTS

Artifact 8 – Suggested Products

- Physical depiction/representation of the life-cycle of a plastic bag that ends up in the ocean
- Slide show created with PowerPoint, PowToons or similar program
- Poem, rap, song, etc.
- Video, Blog, Wiki, web page
- Surveys of bag purchase and use in local grocery stores
- Bulletin board for library and/or school
- Crossword puzzle
- Booklet
- Commercial
- Newscast

Connection to Other Curricular Areas: please see paragraph two under *Activities*.

Adapted Learning:

Developmental Levels: Erikson (pertinent paragraphs)

Stage 4. Industry (competence) vs. Inferiority

Children are at the stage (aged 5 to 12 yrs) where they will be learning to read and write, to do sums, to make things on their own. Teachers begin to take an important role in the child's life as they teach the child specific skills.

It is at this stage that the child's peer group will gain greater significance and will become a major source of the child's self esteem. The child now feels the need to win approval by demonstrating specific competencies that are valued by society, and begin to develop a sense of pride in their accomplishments.

If children are encouraged and reinforced for their initiative, they begin to feel industrious and feel confident in their ability to achieve goals. If this initiative is not encouraged, if it is restricted by parents or teacher, then the child begins to feel inferior, doubting his own abilities and therefore may not reach his or her potential.

If the child cannot develop the specific skill they feel society is demanding (e.g. being athletic) then they may develop a sense of inferiority. Some failure may be necessary so that the child can develop some modesty. Yet again, a balance between competence and modesty is necessary. Success in this stage will lead to the virtue of **competence**.

Stage 5. Identity vs. Role Confusion

During adolescence (age 12 to 18 yrs), the transition from childhood to adulthood is most important. Children are becoming more independent, and begin to look at the future in terms

of career, relationships, families, housing, etc. The individual wants to belong to a society and fit in.

This is a major stage in development where the child has to learn the roles he will occupy as an adult. It is during this stage that the adolescent will re-examine his identity and try to find out exactly who he or she is.

In summary, teachers of this age group (7th grade – 12 years old), must recognize the child's peer group is significantly important, and that it is this very peer group on which the child bases most of his or her self-esteem. This is perhaps never truer than with the 12-13 year old child. Because of this, particular attention must be paid by all teachers on the social aspect of classroom and library activities. Allowances must be made for social interaction, lots of it, and the expectation for students to sit quietly and listen to the teacher fill their heads with information must be dropped. A Constructivist philosophy of teaching is a must for students at this age.

Multiple Intelligences: Gardner

1. Verbal-Linguistic Intelligence -- well-developed verbal skills and sensitivity to the sounds, meanings and rhythms of words

2. Mathematical-Logical Intelligence -- ability to think conceptually and abstractly and capacity to discern logical or numerical patterns

3. Musical Intelligence -- ability to produce and appreciate rhythm, pitch and timber

4. Visual-Spatial Intelligence -- capacity to think in images and pictures, to visualize accurately and abstractly

5. Bodily-Kinesthetic Intelligence -- ability to control one's body movements and to handle objects skillfully

6. Interpersonal Intelligence -- capacity to detect and respond appropriately to the moods, motivations and desires of others.

7. Intrapersonal Intelligence -- capacity to be self-aware and in tune with inner feelings, values, beliefs and thinking processes

8. Naturalist Intelligence -- ability to recognize and categorize plants, animals and other objects in nature

9. Existential Intelligence -- sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here.

In summary, there is potential for all of the nine intelligences to be used as students construct research and their product of choice. Number six, Interpersonal Intelligence, is used during inquiry circles and

other points during the inquiry process where discussion and social interaction with peers is experienced. Number seven, Intrapersonal Intelligence, is used during journal writing and other self-reflection activities.

Adaptations (for students with learning disabilities)

Students with learning disabilities are identified and pulled during Advisory (study hall) time (daily), alternately by teacher collaborators to work in small groups with more focused instruction. The collaboration team works to construct alternate rubrics, tailored into be specific to individual student abilities. The Special Ed teacher is consulted.

Extensions (for gifted students)

Students design and implement a plan to select ten stores in downtown Missoula to educate on the negative effects of plastic bag use and work with store personnel to provide alternatives. This may include working to find funding for offering cloth bags and designing cloth bags. It may also include designing and distributing an informational pamphlet and scheduling time with store personnel to show a short PowerPoint or other technology created product.

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