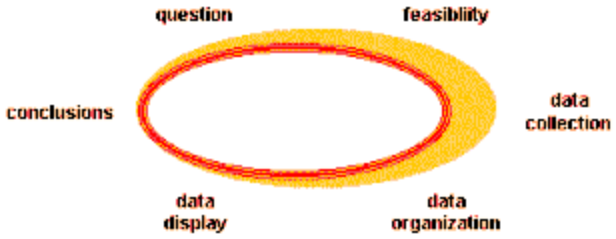
## An Inquiry Into What's Behind Transportation Tragedies

**Learning Area**: Inquiry & Research
**Educational Level**: Middle School
**Content Standard**: Accessing Information

**Standard**: A student shall access information and use a variety of sources to answer a question or support a position by:

**1.** generating a question to be answered or a position to be supported through investigation;
**2.** using electronic media or other available means to access relevant information;
**3.** determining how to record and organize information;
**4.** gathering information from multiple sources;
**5.** evaluating the relevance of the information; and
**6.** answering the question or supporting a position by synthesizing information.

**Large Processes/Concepts:**




**Next step: Assessment Task---**



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## An Inquiry Into What's Behind Transportation Tragedies continued---

### Assessment Task---

**Description: (3 - 5 weeks in length)**
After a brief introduction to the different modes of transportation, the classroom will discuss how the media covers incidents involved in major transportation systems. For assurance of information availability, the transportation systems will be limited to trains, planes, ships, and spacecrafts. Working in groups of four - five, the students will research a transportation "disaster" aware of the actual proportion of the incident versus how the media initially portrayed it to be. Once research has been completed, the students will present it to the class with an outline, 3-dimensional display, and a variety of visual aides. The expected length of your groups presentation is 15 minutes - you will be stopped if you exceed this time.

**Products/Evidence of Learning:**

**1.** Research journal
**2.** List of questions
**3.** Printed articles
**4.** Construct a 3-dimensional model portraying their finding of the incident
**5.** Oral report
**6.** Presentation outline

**Overview:**

Several times a year the news media get excited about some tragedy involving the transportation of people and/or goods. We as future technologists must be able to distinguish between factual information and media hype. There are several reasons why the information given to the general public is not always the absolute truth. It will be your responsibility to uncover as much of the truth as possible for your assigned tragedy.

**Order of Operation:**
**Note:** Time allowed for this project will include at least one hour every Friday. More "in-class" time may be allowed depending on your weekly progress report. I strongly encourage group communication outside of the classroom.

**1.** Each student will be assigned to his/her group by a numbering chart displayed on the overhead, this chart will show the location in the room where each group member should be seated.

**2.** Once you are with your group members, the instructor will do a random drawing to determine what project each group will be working on.

**3.** Each group will have four job titles. These titles will start in order from top to bottom as listed on the overhead and will rotate at every scheduled meeting time.
**For example: ABCD rotates to DABC and CDAB, etc.**

**Next step: Assessment Task continued---**



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## An Inquiry Into What's Behind Transportation Tragedies continued---

### Assessment Task continued---

**The job titles are as follows in this order:**

**a. Secretary 1 -** Record who is present for each meeting time and include important step by step information about how the project is going in your research journal.
**b. Secretary 2 -** Fill out and hand in the weekly progress report.
**c. Inventory Overseer -** Keep track of all items needed for this project. Include out of pocket expense (if there is any), and document exactly what it is used for.
**d. Motivator -** Keep the group **working together** with the task at hand. Make sure that everyone has a chance to express his/her ideas.

**4. After steps 1- 4** are completed, there will be a classroom discussion. Each group will take a turn at stating which project they will be working on. The entire class will try to list as many impacts as possible for each of the following categories: political, environmental, social/cultural, technological, economical, ethical/personal. The instructor will create a chart on the board so that each group can copy them down.

**Sample chart:**

| | Train | Ship | Airplane | Spacecraft |
|---|---|---|---|---|
| **Political** | | | | |
| **Environmental** | | | | |
| **Social/Cultural** | | | | |
| **Technological** | | | | |
| **Economical** | | | | |
| **Ethical/Personal** | | | | |

**5.** Using the information discussed, your group will generate a list of questions to be answered during the research part of this project. Consider all types of questioning for this part--what, why, who, where, how, and when. Keep in mind that the media often "exaggerates" or gives incomplete information.

**6.** Using these questions, it is up to you as a group to decide how you will find the answers. However, there are some requirements to fulfill as follows:

**a.** A minimum of three Internet sites must be used.
**b.** Five other sources such as news articles, text book, interview with a knowledgeable history buff, film, computer software, E-mail contact, etc.

**Next step: Assessment Task continued---**



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## An Inquiry Into What's Behind Transportation Tragedies continued---

### Assessment Task continued---

**7.** After the first hour of classroom research time, each group must set up a conference time with the instructor. During this time, the instructor will review the list of questions generated by your group. Students will go over the research items found so far and offer advice as needed.

**8.** From this point on, it will be the groups responsibility to decide on how to prepare for their presentation.

**9.** There will be one more final conference with the instructor to discuss any areas of concern.

Here are some titles of the disaster topics and related web sites. Remember that you are looking for what really happened. At times it will be difficult to find the information that you are looking for - please ask me or the Media Specialist for help.

**SPACECRAFT**

**Apollo 13: April 11 - 17, 1970**
**Challenger Shuttle Mission: January 28, 1986**

http://www.dot.gov
http://nssdc.gsfc.nasa.gov
http://www.nasa.gov/search

**AIR**

**Fairchild-Hiller FH-227D/LCD: October 12, 1972**
**Eastern Air Lines, Everglades National Park, Florida: December 29, 1972**
**McDonnell Douglas DC-10: July 19, 1989**

http://www.dot.gov
http://www.planecrashinfo.com

**SHIPS**

**USS Indianapolis (CA-35): July 30, 1945**
**S.S. Edmund Fitzgerald: November 10, 1975**
**Exxon Valdez: March 24, 1989**

http://www.dot.gov
http://www.search.navy.mil/collections/history
http://www.nauticalworks.com

**TRAINS**

**Burlington Northern Santa Fe (BNSF) Ledger, Montana: August 30, 1991**
**Kingman, Arizona: February 9, 1997**
**Southall Disaster, London: September 19, 1997**

http://www.dot.gov
http://danger-ahead.railfan.net/index.html
http://www.railwatch.org/map.htm

**Next Step: Weekly Progress Report Worksheet**



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### Weekly Progress Report Worksheet

**Date/Week # of #**

**Project Title:**

**Group Title:**

**Names:**

List progress since the last report. Include any new research, model construction, making of visual aides, presentation rehearsal, or anything else that shows evidence that your group is still on task and on time.

_____

## Check list:

| STUDENT | TEACHER | |
|---|---|---|
| _____ | _____ | The list of questions search for facts, impacts, and major areas of concern. |
| _____ | _____ | The researched information comes from reputable sources. |
| _____ | _____ | Several different forms of researched information are used. |
| _____ | _____ | Visual aides bring about further understanding of your presentation. |
| _____ | _____ | Model displays good craftsmanship and offers an explanation of the incident. |
| _____ | _____ | The outline covers every step of the presentation process. |



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