

# Teacher's Guide for ODYSSEY

April 2012: Titanic Disasters

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## **Teacher's Note:**

This guide contains project ideas, short answer, extended response, fill-in, and true/false with correction. The variation is designed to have the students think critically, as well as to test their comprehension. An answer key to the short answer sections can be found at the end of the guide.

## **Extended Response: Comprehension & Critical Thinking**

The questions below can be used as written, simply answered in complete sentences or easily transformed into longer essay (ELA) style questions, or even research topics. In any case, have the students support their answers with details from the text or use critical thinking skills to create a thorough and interesting answer. The questions, essays and projects have been aligned with the **Common Core Standards**. Consider the level of your students when deciding how to use the questions.

### **"Risky Business" p. 6-7**

1. Why did potential passengers believe that there was little or no risk involved in booking passage on the ship's maiden voyage of the Titanic?
2. Where did the maiden voyage of the Titanic depart from and where was it headed?
3. What was the date of the maiden voyage and approximately how many people were aboard?
4. What are some of the factors that are considering when determining the risk or probability of failure?
5. Why do you think that astronauts accept the huge risk that they do?
6. Give 3 examples telling how if our ancestors had not taken risks, that we might still be living in the Stone Age.

**Essay:** *The author of this article states that there is no advancement without risk. Write a short essay telling why you agree or disagree with the statement. Use examples that are relevant to your life.*

### **"The Sinking of the Titanic" p. 8-10**

1. What was the weather and what was the location of the Titanic on April 14, 1912?
2. List the steps that tell how the unthinkable nightmare of the sinking of the Titanic began.
3. How many people lost their lives on the Titanic, and how many survived?
4. At the time, what was the main goal of the White Star Line?
5. How long did it take to build the Titanic and what was the total cost of the ship?
6. Look at the chart at the bottom of page 10 that lists the Titanic's specifications. What do you find the most impressive and why?

### **"What Sank the Titanic" p. 11-15**

1. What are the three important factors to consider when studying a technology-based disaster? Tell how each factor plays a role in the cause of a disaster, such as the Titanic.

**Essay:** After reading this article and weighing the evidence, write a short essay explaining what YOU think was most responsible for the sinking of the Titanic. Be sure to use details to support your theory.

### **"Stay Hungry, Stay Foolish" p. 22-23**

1. What is your interpretation of the message that Steve Jobs delivered during the commencement address to the graduates of Stanford: "Stay Hungry, Stay Foolish"
2. Why was the message "Stay Hungry, Stay Foolish" so reflective of how Steve Jobs lived his life?
3. Why were Steve Jobs and Steve Wozniak such a successful team?
4. The article mentions that several adults stepped in along the way to help Jobs become the creative man he was. List those adults and tell what they did for him.
5. How was Jobs temporarily side-tracked in 1985? What lesson can you derive from that situation?
6. When Jobs became CEO, Apple adopted a new slogan, "Think Different". Explain what you think this means and how it related to Jobs and the company.

**Project:** Using the information from this article, construct a brief time line of the life of Steve Jobs.

### **"Making Risks Less Risky" p. 24-26**

1. How did Steve Jobs and Apple manage the risks of unveiling the iPad?
2. Why was it key at this time that the iPad did not need a stylus?
3. How did the iPad become a 'media machine' instead of just a tiny all-purpose computer? Make a Venn Diagram illustrating the similarities and differences.
4. Why was it essential to have a 'clear vision' when releasing the iPad?
5. How was releasing the iPhone before the iPad a clever move from Apple?
6. Apple says that they planned out a system, not a device. Explain this statement.

**Essay:** The article states that the way to manage risks is to keep moving forward. Explain a time in your life when this statement applied.

### **"How to be a Smart Risk-Taker" p. 29-30**

1. Explain the major difference between being a smart risk-taker and being a dumb risk-taker. Give examples.
2. Write a short summary of each of the four steps that are outlined in this article. Write about a risk you took that included going through this process, or tell of a time that you were NOT a smart risk-taker. If choosing the second option to write about, explain how it may have turned out differently if you had applied the steps.

**"Geo -Medicine" p. 32-38**

*Read the article in its entirety and then fill in the blanks. Refer back to the text if necessary.*

1. \_\_\_\_\_ is large-scale intervention in the Earth's natural systems so we can counteract climate change.
2. Research shows that average temperatures in the United States could ratchet up \_\_\_\_\_ by the end of the century.
3. The moving parts of Earth's natural systems include the wind, \_\_\_\_\_, vast sheets of sunlight-reflecting polar ice, and mountain ranges that split the sky.
4. The natural systems work together to achieve a \_\_\_\_\_ that produces the worldwide weather patterns familiar to all of us.
5. \_\_\_\_\_ activities have upset the balance of Earth's natural systems.
6. The increased \_\_\_\_\_ affects all the Earth's moving parts.
7. Burning coal, oil, and gas generates waste in the form of ash and \_\_\_\_\_.
8. The SPICE project is designed to find out if it's possible to cool the globe by adjusting the natural \_\_\_\_\_ of the Earth's atmosphere.

**"Titanic Risks, Unsinkable Benefits" p. 40-43**

1. How can scientists calculate the risks and benefits of any scientific advancement? What is the best way to determine if a 'scientific advancement' is worth the risk?
2. What do you think are some of the personality traits that most scientists share?
3. What are some of the criteria that the young scientists in this article need to accomplish the goals of their experiments?

**"Queasy?" p. 44-45**

*Mark the following statements TRUE or FALSE. Provide the correct answer if FALSE.*

- \_\_\_\_\_ 1. The medical term for motion sickness is kinetosis.
- \_\_\_\_\_ 2. The US Army Research Institute for the Behavioral and Social Sciences explains motion sickness as an abnormal response to a normal motion environment.
- \_\_\_\_\_ 3. Symptoms of motion sickness include nausea, vomiting, cold sweats, depression, pallor and dizziness.
- \_\_\_\_\_ 4. Adults aged 30-40 are most susceptible to motion sickness.
- \_\_\_\_\_ 5. Motion sickness occurs when the brain receives mixed signals about orientation and movement from several parts of the body, particularly the eyes and inner ear.
- \_\_\_\_\_ 6. It is not entirely clear what exactly triggers nausea during motion sickness.

\_\_\_\_\_7. Motion sickness increases with repeated exposure to the same environment.

\_\_\_\_\_8. "Land sickness" is a type of motion sickness that occurs as you readapt to life on solid ground.

**ANSWER KEY:**

**"Geo-Medicine"**

- |                          |                        |
|--------------------------|------------------------|
| 1. <i>Geoengineering</i> | 5. <i>Human</i>        |
| 2. <i>15 degrees</i>     | 6. <i>heat</i>         |
| 3. <i>ocean currents</i> | 7. <i>chemicals</i>    |
| 4. <i>balance</i>        | 8. <i>reflectivity</i> |

**"Motion Sickness"**

1. *True*
2. *False, a normal response to an abnormal motion environment*
3. *True*
4. *False, kids aged 2-12*
5. *True*
6. *True*
7. *False, lessens*
8. *True*