

Lesson Essential Question: How has the use of Nuclear Energy changed over the past?



Objective: Students will research various sources to decide, for themselves, if nuclear power is good or bad.

Getting ready: Research the history, use and effects of nuclear technology.

Students will:

- Pick a partner to work with
- Access all websites and read all materials
- Watch all videos assigned
- Answer all questions on the worksheet, in complete sentences
- Use a **“T Chart”** graphic organizer to list the positives and negatives of nuclear power. You should have at least 5-10 facts for each side.
- Student groups will present their findings

Evaluation: Students will be graded on the following characteristics:

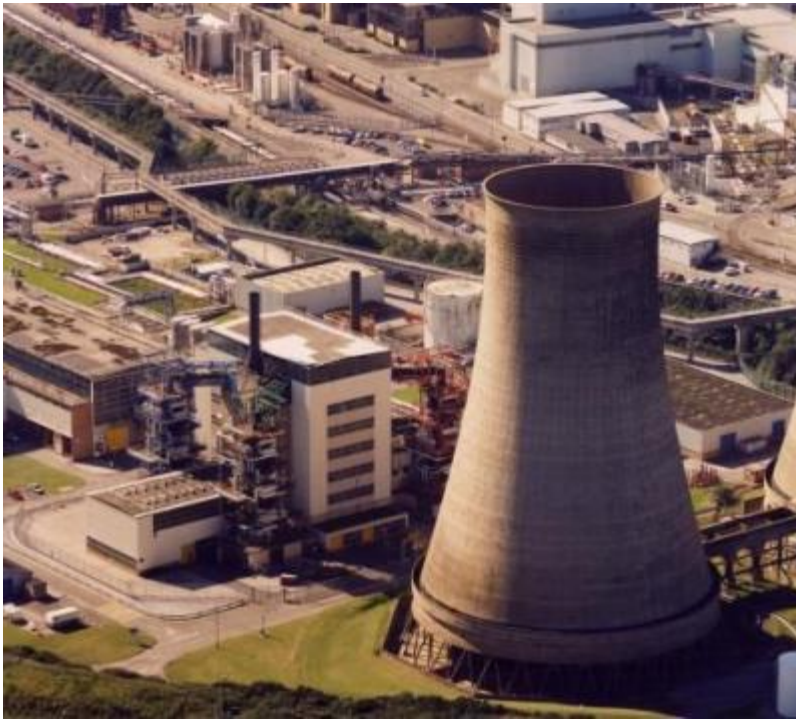
25%- Class/computer work

25%- Completion of worksheet questions

25%- “T Chart” completion, utilizing all required facts

25%- Class presentation and your final conclusion

Nuclear Technology: Do the Rewards Outweigh the Risks?



Follow the steps below and answer the accompanying questions as you go.

STEP ONE:

Watch the following clips:

"Atomic bombing of Nagasaki - BBC"

http://www.youtube.com/watch?v=ncq_Wye43TM&feature=fvwrel

"The Day After (Attack Segment)"

<http://www.youtube.com/watch?v=7VG2aJyIFrA>

STEP TWO:

Watch the following clip:

"How Nuclear Energy Works"

<http://www.youtube.com/watch?v=VJfIbBDR3e8>

STEP THREE:

Watch the following clip:

"Zeitgeist: Addendum | Part 3: The Venus Project"

<http://www.youtube.com/watch?v=3m-23oaDyLU> (Start Time - 7:26, End Time - 11:32)

Visit the following website:

"3/23 cartoon: Mike Luckovich"

<http://blogs.ajc.com/mike-luckovich/2011/03/22/323-cartoon-mike-luckovich/>

STEP FOUR:

Watch the following clip:

"Atomic Diplomacy in WWII"

http://www.youtube.com/watch?v=VP1BzKIH_Yo

Visit the following website:

"Nuclear Diplomacy: Britain, France, and America"

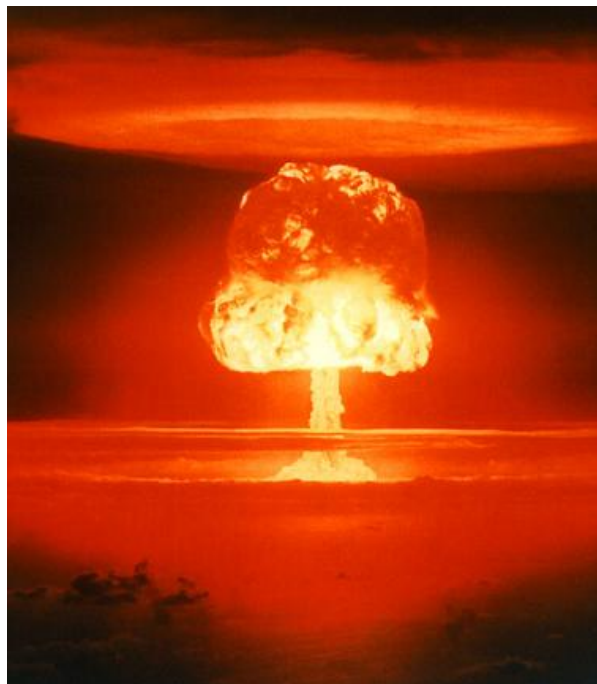
<http://www.foreignaffairs.com/articles/24225/andrew-j-pierre/nuclear-diplomacy-britain-france-and-america>

STEP FIVE:

Discuss the benefits and risks of using nuclear technology with your partner.

--- Use a “**T Chart**” graphic organizer to list the positives and negatives of nuclear power. You should have at least 5-10 facts for each side.

--- Students present their group findings to the class. Together, answer the Lesson Essential Question.



Worksheet – Please answer in full sentences.

STEP ONE:

What positive effects did the dropping of the atomic bombs have during WWII for the Allied forces?

What was the immediate effect to the Japanese infrastructure?

What were the long term effects on the people?

STEP TWO:

What are the positive environmental effects of using nuclear energy?

What are the negative effects?

STEP THREE:

How does nuclear energy compare environmentally and economically to other alternative sources of energy i.e. geo-thermal, wind, solar, and hydro-electric?

STEP FOUR:

What role do nuclear weapons play in international diplomacy?