

College & Career Awareness

Program Area(s): Career Development Application

Lesson Plan Title: CDA 13 - Working Proactively with Others (Presented by Counselor)

Problem solving steps will be discussed and recorded. As groups, students will review the problems NASA faced with the Apollo 13 Mission to Space and work together to consider possible solutions. Assertiveness will be evaluated and considered as well.

Estimated Time: One 45-minute session

Primary CTE Pathway(s) Explored:

Intended Learning Outcome(s):

- Explain how self-knowledge/self-efficacy (interest, abilities, and strengths) relates to career interests and selecting and achieving goals.
- Participate in experiential activities related to career expectations.
- Explain how academic content knowledge and technical skills are used in various careers.

College and Career Awareness Strand, Standard(s):

Strand 1, Standard 1

Strand 2, Standard 3

Cross Curriculum Integration:

- **21st Century or Interpersonal Soft Skills:** Critical thinking, collaboration, communication, creativity

Career Opportunities in the CTE Pathway(s): See 5 Star Occupations Chart (included in the [7th Grade Utah Student Planning Guide](#)), UtahFutures website, or the USOE-CTE Pathway tables.

Nontraditional Career Opportunities: A career where 25% or less of those employed are of one gender - ethnic diversity, access to educational and training opportunities, economic factors.

STEM Specific Career Opportunities:

Methods (Approach to Teaching and Learning):

- Direct Instruction and Demonstration
- Experience/Inquiry/Practice Centered Instruction

Materials Needed:

- Paper and pencils
- PowerPoint - Decision Making Process: Apollo 13 Mission to Space
When using movies and YouTube clips, or videos of this nature, please verify with your LEA's media policies and/or seek LEA approval to use them.
- Worksheet - Assertiveness Inventory (copies for each student – either digital page, or from the [7th Grade Utah Student Planning Guide](#)).

Vocabulary:

- Assertive
- Aggressive
- Passive
- Evaluate Consequences

Prior Knowledge Required by Students: Previous CDA lessons**Instructional Procedures:****Procedures**

1. Introduction (5 Minutes)

Introduce problem solving steps and have students write them down.

- Step 1: Identify the problem/decision to be made
- Step 2: Gather information
- Step 3: Identify alternatives
- Step 4: Access resources
- Step 5: Evaluate consequences
- Step 6: Act

2. "Houston, we have a problem." Video Slides (10 Minutes) – If you would rather not use the film, present problems to students they can solve together.

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Video presentation slides with Apollo 13 movie clips. The clips are embedded in the PowerPoint when in the right mode. You just have to hover at the bottom to see the play button. (Each school needs to purchase a copy of the film.)

- Slide – Stirring Tanks (46 seconds)
- Slide – Houston we have a problem (actually 3)
- Slide – 3 problems overview (have groups decide which problem they want to solve – at least one per problem)
- Slide – 1:33 forget flight plan....how do we get our people home?
- Slide – 1:26 power is everything....(one guy had to speak up -12 amps)
- Slide – 27 seconds...square peg into a round hole
- Slide – Dark side of the moon (6 minutes....)
- Slide – 2:44 Did they survive?

3. Groups (3 Minutes)

Break students into groups of 3 or 4. Each group needs at least one copy of the steps. Encourage students to work together to solve one of the problems

4. Decision Making Steps (10 Minutes)

Encourage students to use the decision making steps to break down how decisions were made to bring Apollo 13 home safely. Show associated PowerPoint slide with steps.

- Return to Earth or go around moon (with limited capacity).
- Reduce electricity consumption, so that they could have needed safety systems working (12 amps).
- They needed to find a way to fit square peg into a round hole to keep astronauts alive.

5. Decision Making Skills (5 Minutes)

Discuss decision making skills in conjunction with interaction style. (Slides 14-17)

- Too Hot – Red (Aggressive)
- Too Cold – Blue (Passive)
- Just Right – Green (Assertive)

6. Assertiveness Inventory (10 Minutes)

Have students take Assertiveness Inventory and allow them to reflect on how they did during the problem solving activity. (Slide 18)

7. Score Assertiveness Inventory by adding up the points in the third column:

- 61 and above = Very Assertive
- 41-60 = Somewhat Assertive
- 40 and below = Not Assertive
- If there is time and the teacher wants to, they can have student's role play some of the scenarios mentioned in the sheet and have them try out the passive, aggressive or assertive approach. (To help clarify these last three terms I use the descriptors from Goldilocks: too cold (passive), too hot (aggressive) and just right (assertive).

8. Wrap up (3 Minutes)

Highlight the engineer who looked in depth at the math and spoke up at the end with the numbers about the 12 watts, which was crucial to the success of the mission. (Slide 19)

- What if he had remained silent? (Danger of groupthink)
- What are 3 ideas you could take away from the lesson today?

Additional Resources:

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Assessment(s):

- Explanation of concepts: written, oral, or through demonstration or performance of particular skills.
- Elaboration: understandings or connections beyond objectives—written, oral or through demonstration or performance.
- Critical thinking demonstration: written, oral, or through demonstration or performance.