



Opinion Activity

Math

Goal: Provide safe environment for students to share opinions about controversial topics and to understand the opinions of others.

Objectives: Students will ...

- Define their own stance on controversial topics
- Actively listen to a variety of perspectives
- Understand different perspectives

Materials (for a class of 30):

- 30 Opinion Activity – Student Sheets
- Pencils or pens
- Signs for “Strongly Agree,” “Agree,” “Undecided,” “Disagree” and “Strongly Disagree.”
- 5 pieces of string approximately 10 feet long each
- 30 Opinion Activity – Dihydrogen Oxide Sheets
- 15 pieces of 8½ in. x 11 in. Graph paper
- 15 pieces of 9 in. x 12 in. construction paper
- 15 glue sticks or glue bottles
- 15 pair of scissors
- 15 Opinion Activity – Making a 3-D Bar Graph
- Markers or crayons for each pair of students

Time Required: 45 minutes

Standards Met: M4, M11, LA1, LA3, LA4, LA12

Procedure:

- Give each student the Opinion Activity – Student Sheet and have him or her circle the option that best represents his or her opinion.
- Do NOT write names on the student sheets.
- Choose statement 10 (ban dihydrogen oxide) from the Opinion Activity – Student Sheet and have a student read the statement aloud.
- Tell students that you recently received more information about dihydrogen oxide.
- Pass out the Opinion Activity – Dihydrogen Oxide Sheet and read it aloud.
- Ask students if they would like to change their opinion based on the information they just heard.
- Tell students that dihydrogen oxide is water and read the Opinion Activity – Dihydrogen Oxide Sheet again. Ask students if the information is accurate.
- Discuss with students how information is important when making a decision. Ask how information can be misleading.
- Go outside. Use signs to create a Lichert scale on the ground, ranging from strongly agree to strongly disagree.

- Choose one statement from the Opinion Activity – Student Sheet and have a student read the statement aloud.
- Students should form a line behind the sign that represents their opinion.
- Ask one student from each line to explain why they are standing in that spot.
- Ask if any students would like to move based on the various rationales given.
- IMPORTANT! This is not a debate. Do not allow students to complete this in a point-counterpoint style. Each line gets one opportunity to share their opinion.
- IMPORTANT! Be a neutral facilitator. It is very important students understand that there is not one right answer. Be very aware of your responses as each student shares their opinion; it is critical to have the same response to each opinion.
- Debrief the opinions shared by repeating what was stated.
- Choose another statement from the student sheet and ask a student to read the statement aloud.
- Have the students switch papers several times.
- They must now proceed to the sign that represents the opinion reflected on that sheet of paper.
- One student from each sign should explain the rationale for that opinion. Only allow students to share the opinion represented on the sheet of paper they are holding – this is not the time to share their own opinions.
- Have students hold string from front to back and fold over excess to measure the number of students that favor each opinion.
- Place string on the ground, have students move away from the lines in order to see graph. Record the number of students in each line so that you will have the number of students to create 3-D graphs later.
- Ask students to raise their hands if they heard opinions based on facts.
- Ask students to raise their hands if they heard opinions based on emotion.
- Ask students to raise their hands if they chose to move after hearing the various opinions.
- Return to classroom and discuss with students how and why people change or do not change their opinions. Ask them if they have ever been swayed to change their opinion on a controversial topic.
- Group students in pairs and give each pair: scissors, glue stick, 1 piece graph paper, 1 piece construction paper, Opinion Activity – Making a 3-D Bar Graph instructions, and markers.
- Review the Opinion Activity – Making a 3-D Bar Graph instructions and show an example to students.
- Have them construct the 3-D bar graph with their partner based on the numbers you recorded from one of the questions on the Opinion Activity – Student Sheet.

Assessment:

- Participation in activity
- Completion of 3-D bar graph

Homework:

- Students should write a paragraph explaining when they had their own opinion changed based on the opinion of another.



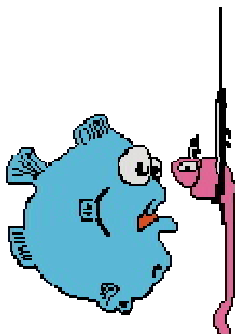
Opinion Activity – Student Sheet

STRONGLY AGREE **AGREE** **UNDECIDED** **DISAGREE** **STRONGLY DISAGREE**

1. Toxic wastes should be disposed of in the state where they originated.
SA A U D SD
2. Cigarette smokers should not be allowed to smoke in any public place.
SA A U D SD
3. Bike riders should be required by law to wear a helmet.
SA A U D SD
4. Trees are a source of greenhouse gases.
SA A U D SD
5. Due to over-population, the world's temperature is changing.
SA A U D SD
6. The source of my electricity is environmentally clean.
SA A U D SD
7. You should pay higher taxes if you drive an SUV.
SA A U D SD
8. There are enough resources in the world to support the current population at a decent standard of living.
SA A U D SD
9. Dihydrogen Oxide should be banned in all public places.
SA A U D SD



Opinion Activity – Dihydrogen Oxide Sheet



This page is only for people who wish to ban dihydrogen oxide because of its toxic properties:

- Causes excessive sweating and vomiting
- A major component of acid rain
- Can cause severe burns in the gaseous state
- Accidental inhalation can kill you
- Primary contributor to erosion
- Decreases effectiveness of automobile brakes
- Has been found in tumors of terminal cancer patients
- May dissolve metal ions especially in the presence of road salt

Taken from <http://www.dhmo.org/facts.html>

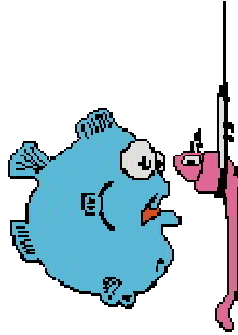


Opinion Activity – Student Sheet

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AGREE | AGREE | UNDECIDED | DISAGREE | STRONGLY
DISAGREE |
|--|---------------------------|--------------|------------------|-----------------|------------------------------|
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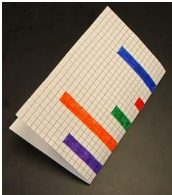
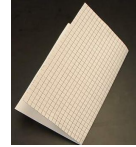
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Opinion Activity – Making a 3-D Bar Graph

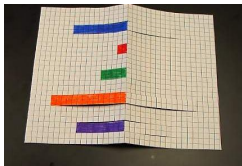
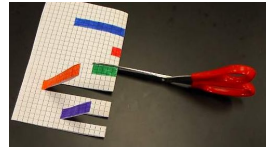
Follow the directions below to construct the 3-D graph.

- 1) Fold a piece of graph paper in half with the grid on the outside.



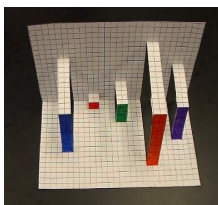
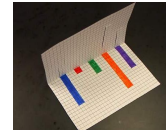
- 2) Using the folded edge of the paper as the base, create a bar graph showing the information gathered from your survey.
Note: Leave a few spaces between each bar on the graph.

- 3) Cut up the left and right sides of each bar.



- 4) Fold the tabs back and forth several times until there is a nice crease at the top of each bar.

- 5) Open the paper and refold along the same line so that the grid is now on the inside.



- 6) Partially open the paper and push the tab to the inside creating a “pop-up” effect.

- 7) Glue a piece of folded construction paper to the back to create a cover.
- 8) Be sure to give the graph a title and label the x-axis and y-axis.

Optional: Glue figures on the front of each tab to represent what the chart shows.