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ABSTRACT

Designed for teachers of students in grades 5-12, the guide provides over 25 lesson plans and 45 student handouts for teaching units on conflict, nuclear war, and future studies. In the first unit, students define conflict, learn conflict-related vocabulary, illustrate knowledge of conflict types through the use of cartons, recognize common elements of conflict, role play conflict situ. ions, perceive situations from varying viewpoints, discover conflict resolution strategies, and acquaint themselves with the Cuban Missile Crisis and the concept of escalation. The nuclear war unit introduces students to moral dilemmas related to conflict and nuclear war topics, nuclear war vocabulary, differing views regarding nuclear strength, speculations on the future of the nuclear arms race, possible effects of nuclear war, and civil defense. Students locate member nations of NATO and the Warsaw Pact, learn about the nuclear weapons freeze through debate, express personal opinions related to nuclear war, and brainstorm reasons for pursuing a hopeful future. In addition to lesson plans and student handouts, reproductions of documents related to nuclear war topics are included. In the final unit on future studies, students envision a post-nuclear holocaust world, compare personal futures with futures of the world, recognize the effects of rapid changes, speculate on jobs and skills needed in the future, consider possible future problems, participate in decision making activities and debates, and synthesize previous lessons. Each lesson plan lists objectives, grade level, time requirements, materials, procedures, and follow-up activities. (LH)





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Teaching About CONFLICT, NUCLEAR WAR and THE FUTURE

John Zola . Reny Sleck

Center for Teaching International Relations
University of Denver
Denver, Colorado 80208



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To our students, who are the future.



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The following pages have been removed at the publishers request because of copyright restrictions:

Page 119: Handout #28, "Fallout Shelter," which was adapted from Values Clarification: A Handbook of Practical Strategies for Teachers and Students, by Sydney B. Simon, Leland W. Howe, and Howard Kirschenbaum, (NY: Hart Publishing Co., 1972).

Pages 123-124: Handout #30, "They Wont't Go Gently," by Pete Hamill,

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Page 133:

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INTRODUCTION

Children from grammar school through high school in the Boston area were asked several questions related to nuclear war. One of these questions was "Have nuclear advances influenced your plans for the future?" Answers included:

"I don't choose to bring up children in a world of such horrors and dangers of deformation."

"It has shown me how stupid some adults can be. If they know it could easily kill them (nuclear advances and the arms race), I have no idea why they support it."

The need for nuclear war education materials is clear. According to many studies now emerging, young people are aware of, and fearful about, nuclear war. Despite their young age, children follow news reports and adult discussions related to nuclear war and the potential for nuclear devastation. What is particularly upsetting is that these children are developing fears of the future just at the time where their futures should be taking on added meaning and possibility. Many physicians believe that the threat of nuclear war could help explain why many members of the generation in their teens have a "sense of futurelessness--that nothing lasts, therefore all is meaningless."

The image is one of a great number of children trying to work toward and address a future that they fear may never come to be. How then can these fears be confronted so that children can survive with healthy minds and The answer, according to some behavioral experts, is by not trying to shield children from awareness. The best protection is knowledge and understanding. Students, especially by the age of middle school, are aware of terms and ideas related to nuclear war and destruction. What they lack are tools for understanding this awareness; tools for dealing with the fears that active imaginations can conjure up. The subject of nuclear war cannot be pushed away. It is much better to deal with the issue openly and honestly. From such study students can come to understand issues related to the general topics of violence, aggression and conflict, as well as the specific topic of nuclear war. Through this understanding, they can then move to a greater awareness of their role in the society around them and finally work to become potential agents of change for the limitless future that should await them. A thirteen-year-old boy who did study such issues reported to his parents that "although he was 'scared' by what he learned about the nuclear threat, he was glad that he took the course. 'Now I can try to do something to stop it.'"

This curriculum guide is one step towards fulfilling the need for teaching materials that relate conflict, nuclear war, and future studies. Lessons are designed as uides that can, and should be modified to meet the particular demands of each classroom. Use them as your professional wisdom dictates. Be certain, as well, that your goal is education and not indoctrination. Students need accurate information to become informed decision makers.



CTIR University of Denver CONFLICT UNIT



Title: WHAT IS CONFLICT?

Objectives:

To identify and discuss the four major conflict groups. To recognize that people perceive conflict differently.

Grade Level: 5-12

Time: One class period

Materials: Markers

Blank paper

Tape

Handout #1, "Conflict Clipping"

Procedure:

- 1. Have students draw a picture that demonstrates "conflict" to them. They should draw anything that comes to mind when they think about conflict.
- 2. When drawings are complete, post them around the room.
- 3. Ask students to identify and/or describe in their own words the different types of conflict depicted. Are there any that seem to go together?
- 4. Have students group drawings into four major conflict groups:

Interpersonal Intergroup International Intrapersonal

- 5. Define and discuss types of conflict. Have students generate examples.
- 6. Distribute Handout #1 as a homework assignment. Students are to find a newspaper article, cartoon, picture, etc. depicting conflict.

Follow-up: Do the next activity, "The Language of Conflict."



CIIR University of Denver Title: THE LANGUAGE OF CONFLICT

Objectives:

To enhance student understanding of conflict-related vocabulary. To help students apply knowledge of four types of conflict to real life situations.

Grade Legal: 5-12

Time: One-half to one class period

Materials: Posting paper

Markers

Procedures:

- 1. Ask students to take out homework assignments from "What is Conflict?" These should be current events articles, photographs or cartoons that illustrate conflict situations. Each student should have completed the handout that accompanies the clipping.
- 2. Discuss the articles by asking students to share what they have found and the reponses on Handout 1. The following questions may help focus the discussion:

What type of conflict (of the four major types) is illustrated by your clipping? Explain your reasoning for your selection.

Which type of conflict seems to be most common? Why do you think that is?

What seem to be common conflict adjectives that come from your clippings?

Does anyone want to guess how the conflict in their clipping will be resolved?

- 3. Prior to collecting the homework, ask students to brainstorm all the words they can that are related to conflict (verbs, adjectives, nouns). Post these on posting paper. Leave lists around the room.
- 4. Ask students to look at this list and to identify those words that are most often associated with each of the four types of conflict.



CTIR University of Denver 5. Collect homework and quickly review student understanding of the four major types of conflict by randomly asking for examples of each type. Have class decide accuracy of examples.



Title: CARTOON BALLOONS

Objectives:

To review various conflict types.
To illustrate knowledge of conflict types through the use of cartoons.
To view conflict from different perspectives.

Grade Level: 5-12

Time: One class period

Materials: Handout #2, "Cartoon Balloons"

Procedure:

- Review the four types of conflict with the students. They are: interpersonal, intrapersonal, international, and intergroup.
- 2. Explain to the students that they are to create situations illustrating each conflict type. They will receive a blank cartoon with two "generic" people. Students are to add detail to the pictures to illustrate the conflict type. They also add a conversation to depict the conflict type.
- 3. Distribute Handout #2. Allow 20-30 minutes for students to create conflict situations.
- 4. Display finished cartoons around the room and discuss similarities, differences, perceptions, and so forth.



Title: MONDAY MORNING

Objectives:

To perceive that conflict is a part of everyday life. To identify different types of conflict situations. To recognize that all conflicts have common elements.

Grade Level: 5-12

Time: One class period

Materials: Handout #3, "Monday Morning"
Posting paper or chalkboard

Procedures:

- Quickly review the four different types of conflict (interpersonal, intrapersonal, intergroup, and international). Have students give clear examples of each.
- Distribute Handout #3. Ask students to read the story and note every example of conflict in the handout.
- 3. When all have finished reading the story, share the examples of conflict that were found. Continue the discussion with the following questions:

Which conflicts are over different values? Which conflicts have to do with power?

Where in the story do communication problems arise? What could be done to improve the communication in these situations?

Do you think any of the conflicts were healthy? Did any of the conflicts serve a useful function?

Is a certain amount of conflict natural in everyone's life? Give examples from your life.

4. Several of the conflicts in this story have common elements to them. One example would be the conflict between competing desires (stay up late vs. getting enough sleep or wanting Israel as an ally vs. Saudi Arabia's friendship). Ask students to find other common elements in the many conflicts. List and discuss those elements.



CTIR University of Deriver 5. Ask students to write a similar story reflecting the conflicts in their daily lives. This can be submitted as a homework assignment or shared in a class discussion.

Title: POWER PLAYS

Objectives:

To analyze conflict situations through role play. To perceive conflict resolution and power. To improve conflict perception.

Grade Level: 5-12

Time: Two class periods

Materials: Handout #4, "Conflict Situations"

Handout #5, "Conflict Observation Form"

Procedures:

1. Divide class into several groups and distribute a different conflict situation from Handout #4 to each group.

- 2. Allow students fifteen minutes to analyze the conflict situation and prepare to present the situation to the class. Each student in the group should have a role to play. Encourage realism and effective communication of the conflict. Tell students each group will have four to five minutes per presentation as a maximum.
- 3. Distribute Handout #5. Each group is to present their conflict situation. During each presentation members of one other group should individually complete the observation form. At the conclusion of each presentation the formal observers should share their responses. The class as a whole should then discuss their perceptions of the situation. Do not plan to complete all presentations the first day.
- 4. At this point, focus discussion on conflict resolution and power.

DAY 2

- 5. Begin the second day of this activity by reassembling groups. Allow five minutes for students to review their roles and prepare for presentations.
- 6. Instructions to the class: "At some point during each presentation I will say 'stop' and ask you to make a specific change in the situation. Know your characters well enough to deal with this change."

Role play situations were developed by Base Line Junior High WARP Team, Boulder, Colorado, 1982.

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- 7. After characters have been established in the presentation, reverse the roles of central conflict participants. An example would be parent becomes child or student becomes teacher. Proceed with presentation.
- 8. Observers share responses with the class, but now focus discussion on how role reversal affected the conflict situation. How did the participants deal with the change?
- 9. Role reversal actors should share their perceptions with the class. Were they able to see the other side of the conflict better? How did it feel to have the power shift?
- 10. Discuss how role reversal, power differences, or other conflict resolution ideas can help students with conflicts in their own lives. List all the ways that role play participants tried to resolve the conflicts. This will provide a basis of understanding for a future activity.



Title: PERCEPTIONS

Objectives:

To perceive given situations from varying viewpoints. To analyze conflict situations at an international level.

Grade Level: 7-12

Time: One class period

Materials:

Handout #6, "Motives-A"
Handout #7, "Motives-B"
Handout #8, "Cartoon Perceptions"

Procedures:

- 1. Distribute Handout #6 and #7 so that, unknown to them, half of the students receive #6 and half receive #7. To make the handouts appear identical, block out the handout numbers when reproducing them.
- 2. Once the handouts are distributed, ask students to individually complete the assigned task. They should be encouraged to put down their most honest response. Be sure that neighbors don't look at each other's paper.
- 3. Once students have completed the handout, begin to solicit responses to each item. Do not read the question. Instead, ask "What did you put for #1" or "Why have they stockpiled so many nuclear warheads?" Be sure to get reasons for answers given. Continue discussing responses focusing on the similar answers each has for the possible motives. It may be helpful to chart the selected answers on the chalkboard. Soon, the students should catch on that they have different forms. Note that identical actions in both the U.S. and U.S.S.R. can be seen to have similar motives. In addition, point out where responses were clearly different. What does that say about how we view our own actions versus how the Soviets might look at them? Could this cause problems?
- 4. When you have discussed each of the items, ask every student to answer the following question on the bottom of the handout: "What do you think the purpose of this activity was?" Survey responses.
- 5. Define the term perception as a particular way of looking at a situation. You may refer back to the previous activity where parents and children or teachers and students had different perceptions of the same situation. Discuss how the U.S. may perceive a Soviet move as very threatening while the Soviets may perceive the same action as purely defensive. Discuss how



differences in perception can help explain the roots of conflicts.

- 6. To further illustrate the differences of perception between the Soviet Union and United States, ask students (in small or large groups) to brainstorm adjectives and words that describe the U.S.S.R. and then the U.S. Compare these lists noting that students in the Soviet Union would probably make similar lists with reversed headings. Ask students where their perceptions of the Soviet Union come from and how factually based they are. Do ill-informed perceptions make conflict more or less likely? Why?
- 7. Distribute Handout #8 to each student. Explain that this homework assignment will help them further explore the idea of differing perceptions. Students should follow the directions on the handout.



Title: CONFLICT RESOLUTION

Objectives:

To become familiar with various conflict resolution strategies.

To be able to use different conflict resolution strategies in different situations.

To review types of conflicts.

To become familiar with editorial cartoons.

Grade Level: 5-12

Time: Two class periods

Materials: Handout #9, "Conflict Cartoons"

Editorial cartoons from recent newspapers posted around the

room (Optional)

Procedures:

- 1. Draw attention to the editorial cartoons posted around the room or discuss what an editorial cartoon is. As review, you may want to point out differing perceptions in the cartoons.
- 2. Explain that students will draw their own cartoons illustrating the various types of conflict.
- 3. Distribute Handout #9. Give students fifteen to twenty minutes to complete the worksheet. Ask students to work on their own without letting others see their work.
- 4. When students are done, ask them to fold the sheet along the dotted line. Answers should go behind the drawing. Post the drawings around the room. Have students look at cartoons, name the conflict situation, and guess possible resolution strategies. Then, they can look at what the author intended by looking at the folded section.
- 5. Come back together as a class. List on the board all the resolution strategies from this, or previous activities. Students should place the ideas in their notebooks. Conflict resolution strategies to specifically note and explain include:

Role reversal (walking in other person's shoes)
Nonviolence (Martin Luther King, Ghandi are examples)
Pacifism (a simple refusal to engage in any form of violence, much like nonviolence)
Bargaining (striking up a deal beneficial to both sides)



Compromise (finding an agreeable middle ground)

Consensus (a solution where no one loses, all are satisfied)

Force (usually doesn't resolve a conflict, but instead changes or delays the conflict)

Ignoring or evaluating (sometimes conflicts do just go away--but not always)

Accomodating (bend over backwards, give in to the other party)

- 6. Looking again at the drawings, where could each of these techniques best be applied? Conflict resolution requires that students not only recognize various resolution strategies, but also ways to most effectively confront another individual. The following are some guidelines to be discussed with students.
 - a. Be sure you think about who "owns" the problem--you or the other individual.
 - b. Plan in advance where, when, and how you want to raise the issue.
 - c. Start with a statement of fact, then a statement of feeling. Explain clearly how you are feeling because of the conflict.
 - d. Explain what you would like to see happen. Be honest, but also be realistic. What would be your solution?
 - e. Stop talking and actively listen. Find out how the other person is feeling; what facts they see. In all of steps c, d, and e, be careful not to be judgmental or accusatory—this only makes the other person defensive and the conflict more difficult to resolve.
 - f. Discuss what you both want to happen now. Work to reach a mutual decision you each can live with.
 - g. Avoid confronting others when you (or they) are mad, hungry, in a hurry, in front of others, or before you have really thought the problem through.
- 7. Recall the four types of conflicts that have been discussed. As a class, brainstorm five specific conflict situations in each of the four categories. Examples from real life are to be encouraged. Review the list to clarify each conflict listed.
- 8. Pair students. Each pair of students should select or be assigned one of the conflict situations. Have students adopt roles in the conflict and use three different conflict resolution strategies in resolving the conflict situation. They should be prepared to discuss the different outcomes of each technique. Which was the most effective? Share results as a large group. Attempt to make generalizations about the usefulness, consequences, etc. of each conflict resolution strategy.
- 9. Select an international conflict situation from a recent newspaper or the daily news. Explain the conflict situation. Apply all of the conflict



resolution strategies to this one situation. What different outcomes come about? Encourage students to really push their thoughts about what would most likely happen. Discuss most effective strategy(ies). Discuss the strategies used most commonly in today's international scene. Are they effective? Explain.

Follow-up: Have students write two or three vignettes where they actually used some of these strategies. Discuss them in class with a focus on how best each conflict could be resolved.



Title: THE CUBAN MISSILE CRISIS

Objectives:

To acquaint students with the Cuban Missile Crisis.
To participate in and attempt to resolve an international conflict situation.

Grade Level: 7-12

Time: Two to three class periods

Materials: World Map

Handout #10, "Cuban Missile Crisis-Background"

Handout #11, "Random Drawing Slips"

Handout #12, "Message From the Supreme Soviet Presidium" Handout #13, "Message From the Executive Committee of the

United States"

Handout #14, "Cuban Missile Crisis-Outcome"

Procedures:

- 1. Introduce this activity by explaining to students that it will involve the United States, Soviet Union, and Cuba. Thus, it is an international conflict. Tell students they will need to use all the general information on conflict they have learned to this point. Set the stage for students by explaining that this incident took place in October 1962 when John F. Kennedy was President. You may want to solicit opinions about this by now almost mythical figure.
- Using a world map, locate the United States, Cuta, and the Soviet Union. Note the proximity of the U.S. to Cuba. Tell students that the actual distance is approximately ninety miles.
- Distribute Handout #10 and have students read the background material.
 Teacher may elect to read the material to the students instead.
- 4. Have each student randomly draw from Handout #11 for their roles. Explain the terms "hawk" and "dove," but encourage flexibility in thinking.
- 5. Annouce the following after each group—the U.S.A. and the U.S.S.R.—have assembled on opposite sides of the room (or before going to separate rooms). "Each group is to select a leader (President Kennedy and Premier Khrushchev). These persons have the ultimate authority to make any decision. The rest of you are advisors helping to resolve this confict. That is your goal . . . to resolve this conflict. You will be under time



pressure to do so--just as the real "actors" were. You will have five minutes to make each decision. While the other side is working, you should be planning strategy and figuring out options and responses. There will be no face-to-face discussions, all communication must be clearly written down. No "hot line" existed until after this crisis. Each side may decide to try and send one person to do "side negotiations." Take this seriously, the fate of your society is in your hands.

- 6. Separate the groups. Give each several copies of the appropriate message forms (Handouts #12 and #13). Give the U.S. five minutes exactly to have a written response to the construction of offensive nuclear missiles in Cuba and the Soviet's denial of it. The teacher can act as the courier.
- 7. Give the Soviet Union five minutes to respond to the U.S. message with their own message. Continue for at least two more exchanges (or until they launch an an all out attack!). Watch the process and eavesdrop so you can discuss the way each group reacted.
- 8. When students have completed the message exchange, discuss the outcome as the students played it. What resulted? Why? How did you seek to resolve the conflict? What conflict resolution strategies were tried, failed, effective? Why?
- 9. Distribute Handout #14 and read aloud. Discuss the handout with students.

What problems could a surgical airstrike have created? ([oo high in "hierarchy of choices")

Why was a quarantine of Cuba a safer response than a surgical airstrike? What if the U.S. Navy had had to shoot a ship to stop it for a search, what might have happened?

Who was the hero in this situation? Why?

Was President Kennedy's refusal to negotiate, even about the Turkish missiles, rash and unwise? Why or why not?

What was the potential price of this conflict?

What role do you think pride played in this situation?

This was a case of "brinksmanship." Explain that term. Is it a good conflict resolution tool?

If it came to it, should the U.S. have started a military confrontation?



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Follow-up:

- 1. At this point the teacher can either elect to go on to the next activity on Escalation or wait until another class period.
- 2. Have students read the book by Robert F. Kennedy, entitled Thirteen Days: A Memoir of the Cuban Missile Crisis. New York, W.W. Norton, 1969.



Title: ESCALATION

Objectives:

To acquaint students with the concept of escalation.
To apply the concept of escalation to the Cuban Missile Crisis.
To review the previous materials on conflict.

Grade Level: 7-12

Time: One class period

Materials: None

Procedure:

- 1. Write the word escalation on the board. Solicit opinions on what this term means. Explain that it is the word for the process of a small conflict growing into a larger conflict. Explain that conflicts in our daily lives often escalate. One example is when someone has a small misunderstanding with a friend. One person may then start to spread rumors about 'he other. Now the conflict has escalated, or grown. Ask students to share personal experiences of conflict escalation at school or home. Focus this discussion on how each conflict grew.
- 2. Refer to the Cuban Missile Crisis. Did the conflict escalate when the students were re-enacting this crisis? How and when? What about during the actual conflict? Point out that the quarantine and military threats were both examples of escalation. Which of these would have escalated the conflict faster or further? Was one a better choice if President Kennedy feared escalation of the conflict?
- Once the students have a clear understanding of escalation, ask them to suggest de-escalation strategies. When a conflict is growing, what can be done to reverse the process and lower tensions? Suggestions should parallel the previous ideas on conflict resolution strategies. How was the Cuban Missile Crisis de-escalated? Khruschev lost face (and ultimately power) because of his resolution of the missile crisis. Must someone always lose if a conflict is to be de-escalated?
- 4. As a final example of escalation, discuss the present world arms race. Explain that an arms race is a contest to always have superior and more powerful weapons. With this basic understanding, ask students why, despite our ability to destroy our enemies many times over, we still design and build new weapons. Ask students to explain how the arms race is an example of escalation.



CIIR University of Denver STUDENT HANDOUTS FOR CONFLICT UNIT



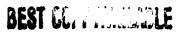
CONFLICE CLIPPING

Attach clipping in this space.

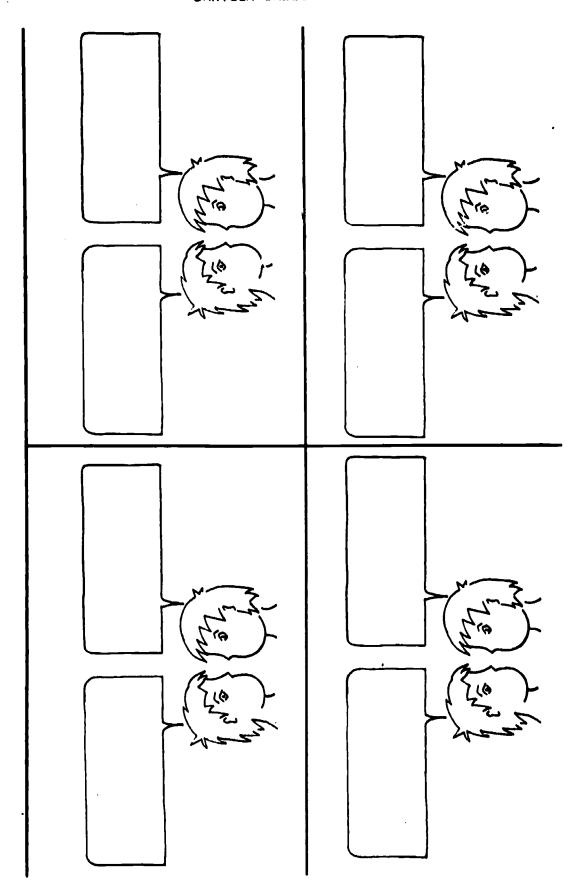
Identify the two or more opposing forces in your clipping.
In your own words, in at least two clear sentences, describe the conflict in this clipping.
Identify the major type of conflict that your clipping shows.
Would you label your clipping as a positive or negative example of conflict?
List all of the conflict-related words that are either stated or shown in your article.



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CARTOON BALLOONS



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MONDAY MORNING

My alarm went off at 6:15. [ired, because I had decided last night to stay up a little later than usual to watch MASH, I decided to sneak in another fifteen minutes of sleep.

Fifteen minutes somehow turned into forty-five minutes. As I jumped out of bed, I knew I would have to rush to make it to school on time. To complicate the morning further, I couldn't decide what to wear. I tried on several sweaters, but none seemed to go well with my grey pants. If only I had picked up my cleaning last night on the way home. Then I wouldn't have this problem.

Once in the kitchen, I decided on instant coffee, since it takes less time to make than regular. As I picked up the Rocky Mountain News, I noticed this morning's headline: "Saudi's Claim Israeli Incursion." Apparently, Saudi Arabia thinks that Israeli warplanes invaded their airspace. It seemed like an important event, o I decided to read it, although I knew that reading the article would cause we to be even later for school.

As I started my car, I noticed that the gas gauge was approaching "empty." I thought of the last time I let it get that low on gas. I wished now, of course, that I had filled it up last night on the way home.

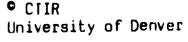
Listening to the radio, I heard how some Democrats are urging Governor Lamm to run for a third term. The next report was about the on-going struggle between Republicans and Democrats to draw new congressional boundary lines for Colorado's six seats in the U.S. House of Representatives.

The story about Saudi Arabia and Israel was repeated on the radio. As I listened, I remembered the big news story of last week—the sale of U.S.-made AWAC planes to Saudi Arabia. I remembered how angry Israel got at the Reagan administration for selling AWACs to Saudi Arabia. I remembered how the Senate was divided over the sale for so long.

I thought to myself about what an important nation Saudi Arabia is in the world. As I thought about how much oil we import from the Saudis, I remembered the article I read in Iime Magazine last evening. It was about Saudi Arabia raising the price of a barrel of oil from \$32 to \$34 per barrel. As I again looked at my gas gauge, I wondered if the price of gas would go up again.

I put my thoughts about Saudi Arabia aside and thought about whether to join my carpool this morning or to drive to school by myself. I decided to join

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the carpool, since I was so low on gas. When I arrived at the meeting place for my carpool, I saw my three classmates waiting for me. As I got into the car, one said, "You're late Jackie and now we're all likely "be late. That's not fair to us." What could I do but say, "Sorry . . . won't happen again!" Soon we were all talking about the nuclear weapons freeze on the upcoming city ballot. John was strongly in favor of the "freeze." Elizabeth said she thought it was a stupid idea and that John shouldn't be such a fool. As John started to explain his position, Elizabeth turned and said, "Oh, shut up!!" I thought about it but couldn't make up my own mind on the nuclear freeze.

Soon, we realized we had five minutes to make it from I-25 and University to school, a distance that takes a full ten minutes in mild traffic. On the way to school, we honked the horn several times at people who had the nerve to change lanes--right in front of us!

Finally arriving at school ten minutes late, I chose to sneak in a side door and bumped into . . . you guessed it, Mr. Isaacson, the school principal. He asked why I was late. Somehow, the explanation, "I think I have a 'Monday Morning Problem'" didn't make him very happy. He said to see him immediately after school to talk about my being late.

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CONFLICT SITUATIONS

SITUATION #1: Grades

Mom, I'm going to the high school to play football.

Whoa . . . wait a minute. Let's see your report that's due tomorrow. I want to check it over.

Oh, haven't had a chance to write it yet. I'll get up in the morning and do it then.

NO FOOTBALL!

Mom! I can do it in the morning!

Sorry, Ben. You know I leave you alone about grades if you pull off a 8+ average, but you didn't this time. That English grade was the pits. I know that you could even make As if you wanted to.

So what? It was above average. I can't do any better than that. Besides, I hate reading, and if you make me read, I'll hate it more.

Well, at least you'll learn the discipline to get through college.

I'll get through college just fine, and maybe I won't go to college anyway.

Go to your room and write that report!

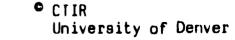
SITUATION #2: Invasion of Privacy

Sally's father answers the phone. It is a boy asking for Sally. He calls his daughter, and even after she has received her call, he stays on the downstairs phone and listens to the conversation.

Parent: Sally's father doesn't want Sally to associate very much with boys until she is 16 years old. He doesn't trust his daughter with boys yet and won't let her make her own decisions.

Sally: Sally doesn't want her father messing with her personal life. She doesn't go out too much and not very many guys call her because of her father's strictness. She wishes her father would not be so strict, especially if a guy calls her. She wants her privacy.

Other Roles:





SITUATION #3: Report Card

You come home from school with your report card. Your parents see it and are very disappointed because your grades are not "up to par." Your parents threaten that until your grades improve, your social privileges will be taken away. (You cannot go to movies, parties, baseball games . . .) You feel that you are doing your best and that your parents are being unreasonable.

What could you do?

SITUATION #4: Privacy and Room

You come home from school and find that your mother has been cleaning your room. All your things have been picked up, and your drawers spotless. You rush to your secret hiding place and find that the hidden <u>Playboy</u> magazine (or . . .?) is gone. On the way out of your room, your mother approaches you, angry about finding the magazine (or other item.)

You feel that your mother has invaded your privacy. Your mother feels that you should not be reading the magazine or have the other item.

What next?

SITUATION #5: Siblings and Family

You are in the family room talking on the phone to your best friend. Your brother and his friends come in and turn on the television. This interrupts your conversation, and you ask them to please be quiet. He and his friends begin mimicking you and laughing about your conversation. You become angry and tell your parents. They suggest that you work it out with your brother.

What could you do?







SITUATION #6: Money

Student:

You are given a weekly allowance. It is enough money to get by—not a lot, but you can pretty much do what you need to do with it. Lately, you have gotten into blowing it all in the arcade or on make—up (your choice). Your parents have been asking you why you spend your money on such things, or wanting to know how you spend it. It has begun to be a problem because they are getting upset at your choices.

Parents:

You work hard and try to give your child enough allowance to do things with his/her friends. It is not lots of money, but you feel it is adquate. Your child has not complained about the amount. Lately the allowance doesn't seem to show up in any way that you can see. It all seems to be going to the arcade or Revion. You feel that this is a unproductive way to spend the money you have worked hard to earn. You ask where the money goes, because you want to make sure it is not for drugs or cigarettes.

Your child gets very defensive when asked to account for the money. It has become enough of a problem that there are weekly hassles about it. You just overheard your child talking on the phone explaining he/she can't go to the movie because he/she is broke.

SITUATION #7: Curfews

Setting:

You walk in one hour late for your 5:00 pm dinner-time curfew. Your mother has been looking anxiously out the window and turns instantly cold and hard when you walk in and sey, "Hi Mom."

Student:

You are sick of always having an exact time to be home. You think you are mature and responsible enough to get yourself home without any problems. You have been having a good time with your friends and you completely lose track of the time. When you realize how late it is, you call home. The line is busy. You tell your friends you'd better go or your Mom will kill you. They persuade you to stay longer. It's 10 minutes to 6 when you finally leave, but before you go you call home again. The line is still busy. You run home.

Parent:

You are worried about your daughter. You live in a neighborhood with a lot of students, and you are afraid she might get raped or something. She doesn't come in late often, so you are especially worrid. Then your daughter walks in and tells you that she lost track of the time and tried to call. You get mad at her.

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SITUATION #8: Peer Pressure

Your parents are both away and you have a friend visiting. You really like this person and have been trying to build a friendship. Having him/her come over to your house is a big deal and you are looking forward to hanging around. After a while your "friend" suggests that you both try "a little" of the liquor in the house. You know where it is kept and know your parents would disapprove of you drinking.

What is said between you and your friend?

SITUATION #9: Consistency

Setting: Last Friday night you went to a movie and then to an arcade with a small group of good friends.

A friend you like but don't know too well asks you to go to the show this coming Friday and you say yes. But when you mention your plans at home, your parents seem very hesitant to let you go.

Student: You said yes automatically to this person because you have done this kind of thing before and assumed that it would be fine. This person is a relatively new acquaintance and you are looking forward to a fun evening.

Parent: Last Friday night was okay because you knew all the kids your child was with. Now you are concerned because you do not know this new friend, and you're afraid they might skip the movie to do something else.

SITUATION #10: Listening/Communication

Student: You've just come home from school and have had a "not so great" day. You're anxious to unload on someone who cares and your parent is in the kitchen preparing dinner. You figure this is a good time to talk. As you are about to share some of your personal concerns and problems, your parent starts in with orders and complaints. "You're late"; "Set the table," etc.

Parent: You've had a long, hard day. You are trying to get dinner ready, but you are behind. As your child walks in, you start explaining what kind of help you need. Any other matters to be discussed can certainly wait until the family is sitting down to eat.

What happens? How do each of you react?



SITUATION #11: Sibling Rivalry

You and your brother/sister share a room. One afternoon after school, you come home and find him/her going through your drawers. You become angry and feel as if your privacy has been invaded. You tell your parents, but they say they are tired and don't want to get involved.

What would you do?

SITUATION #12: Drugs/Alcohol

Student:

You have gone to a movie with friends, and on the way home you go through the park where some acquaintances are drinking beer. They yell at you to come over and join them. Your friends drink some beers, and you decide to drink also. It is getting a little late, and you have to get home. You realize you are slightly drunk and late. As you approach the door of your house you see that your parents are up. When you walk in the door, they ask you where you have been and why you are so late?

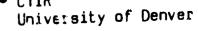
Parents: Your child is late coming home from the movie. You are worried that he/she has not called. Soon your child walks in the door and apologizes for being late. You ask him why. Something seems a little strange. Could your child be drunk? Do you confront him/her?



CONFLICT OBSERVATION FORM

•	What other conflicts did you observe as the situation unfolded?
	Was the major conflict resolved? If yes, how did this happen
1	Who in this situation has the most power? Why?
•	How did they use this power?
•	How well did the individual characters listen to each other?







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MOTIVES

Look at each of the following statements. Imagine that you were reading the statement in the newspaper. Put the letter of the reason below that you think is probably the reason why the government of the U.S.S.R. took that action.

- A. The U.S.S.R. wants to preserve world peace and help other countries.
- B. The U.S.S.R. ia worried that the U.S. will attack her or other countries and is preparing to defend herself.
- C. The U.S.S.R. is trying to trick the U.S.
- D. The U.S.S.R. feels threatened and is protecting itself.

	1.	The U.S.S.R. has recently made it easier for tourists from the U.S. to visit the U.S.S.R.
	2.	The U.S.S.R. spends about half of its total budget for military purposes.
	3.	The U.S.S.R. has closed large areas of the country to travel by U.S. diplomats.
	4.	U.S.S.R. planes have illegally flown over parts of the U.S.
	5.	The U.S.S.R. has stockpiled more than enough nuclear warheads to kill all the citizens of the U.S.
	6.	The U.S.S.R. has made several proposals concerning East-West disarmament.
د المستحديد المستحد	7.	The U.S.S.R. has provided military training and military assistance to smaller nations.
	8.	The U.S.S.R. has established rocket bases close to the borders of the U.S.
	9.	The U.S.S.R. has stated that it was compelled to start testing nuclear weapons by the U.S.
	10.	The U.S.S.R. has stated that its weapons are for defense only and will never be used in a first strike.
	11.	The U.S.S.R. has direct influence in the politics of other countries.

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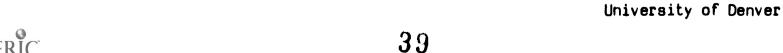
MOTIVES

Look at each of the following statements. Imagine that you were reading the statement in the newspaper. Put the letter of the statement below which you think best expresses the motive of the U.S. government for taking that action.

- A. The U.S. wants to preserve world peace and help other countries.
- B. The U.S. is worried that the U.S.S.R. will attack her or other countries and is preparing to defend herself.
- C. The U.S. is trying to trick the U.S.S.R.
- D. The U.S. is getting ready to attack the U.S.S.R.
- E. The U.S. feels threatened and is protecting itself.

	1.	The U.S. government has recently made it easier for tourists from the U.S.S.R. to visit the U.S.
	2.	The U.S. spends about half of its total budget for military purposes.
	3.	The U.S. has closed large areas of the country to travel by U.S.S.R. diplomats.
	4.	U.S. planes have illegally flown over parts of the U.S.S.R.
	5.	The U.S. has stockpiled more than enough nuclear warheads to kill all of the citizens of the U.S.S.R.
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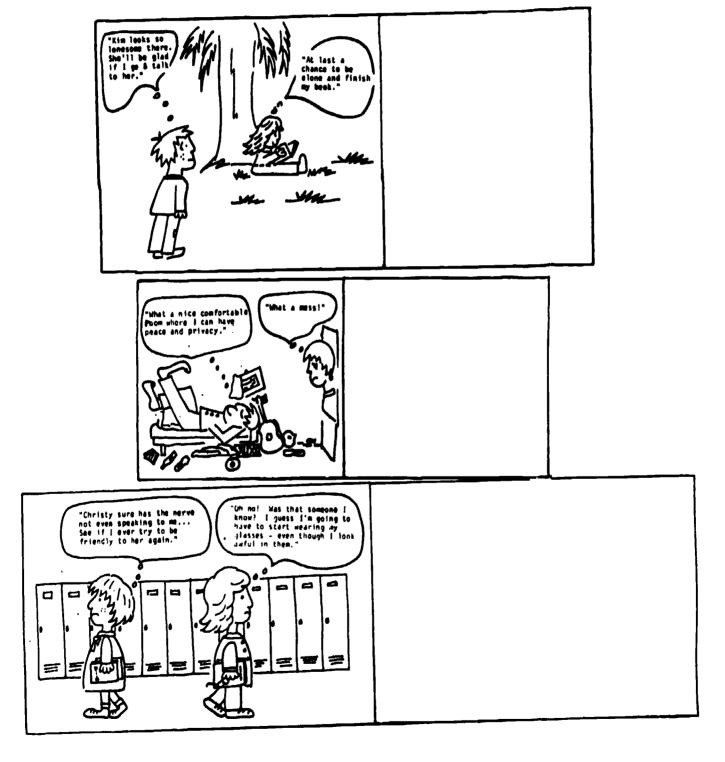
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PERCEPTIONS

Conflicts are often caused by differences in perception.

1. Examine the following cartoons. Draw in the next frame for each cartoon showing how differences in perception can lead to conflict.







2.	Create a cartoon arise from diffe	from your own rences in perce	n experiences eption.	s showing how	a conflict ca
		,			
_	<u>.</u>				
3.	Create your own U.S.A. and the U	cartoon showing .S.S.R.	the differen	nces in percepti	ions between th
	<u> </u>			-	



CONFLICT CARTOONS

 What type of conflict have you drawn?	
What type of conflict have you drawn? Describe the conflict in several sentences.	
Describe the conflict in several sentences.	



CUBAN MISSILE CRISIS BACKGROUND

In 1959, Fidel Castro lead a successful revolution in Cuba against a corrupt dictatorship. Soon, Castro developed ties with the Soviet Union. The U.S. considered this a violation of its "sphere of influence" in the Western Hemisphere and severed relations with Cuba. This pushed Castro and Cuba closer to the U.S.S.R. Castro asked for and received defensive weapons from the U.S.S.R.

In April 1961, the U.S. sponsored an unsuccessful invasion of Cuba by anti-Castro Cubans seeking to overthrow Castro. The "Bay of Pigs" invasion greatly embarrassed the U.S. and President John F. Kennedy. After the attempted invasion, Castro sought more military aid from the Soviet Union. The Soviets agreed, but only if they could place offensive missiles in Cuba.

In June 1961, Present Kennedy and Premier Krushchev met in Vienna and agreed that no offensive arms would be permitted in Cuba. Also, the U.S. was to remove outdated Jupiter missile bases in Turkey.

On October 16, 1962, a U-2 spy plane photograph revealed the start of construction of offensive missile sites in Cuba. Subsequent flights confirmed this.

On October 25, 1962, President Kennedy went on national TV to inform the United States people of the Cuban missile situation. On October 25, 1962, the U.S. appealed to the U.S.S.R. to resolve the crisis. The U.S.S.R. denied any building of offensive missile sites. On October 27, a U.S. U-2 spy plane was shot down over Cuba. The build-up of missile bases was continuing.

The U.S. and the U.S.S.R. deliberated during this Cuban Missile Crisis hoping to come to some conclusion. There were two groups meeting. One was the Executive Committee, or "Ex Comm" in the U.S. The Ex Comm included President Kennedy, the Joint Chiefs of Staff, and diplomatic and political advisors, including President Kennedy's brother, Robert. The Soviet Presidium was the other group and included Premier Krushchev, his top generals, diplomatic, and Communist party advisors. Each side feared and distrusted the other side; both sides had nuclear weapons at their command. The U.S. felt it must make some response to this missile build-up in their "backyard."



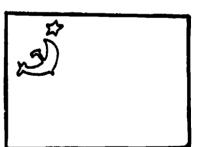
RANDOM DRAWING SLIPS

USA	USA	USA	USA	USA
(HAWK)	(HAWK)	(HAWK)	(HAWK)	(DOVE)
USA	USA	USA	USA	USA
(DOVE)	(DOVE)	(DOVE)	(NEUTRAL)	(NEUTRAL)
USA (NEUTRAL)	USA (ANY POSITION)	USA (ANY POSITION)	USA (ANY POSITION)	USA (ANY POSITION)
USSR	USSR	USSR	US5R	USSR
(HAWK)	(HAWK)	(HAWK)	(HAWK)	(DOVE)
USSR	USSR	USSR	USSR	USSR
(DOVE)	(DOVE)	(DOVE)	(NEUTRAL)	(NEUTRAL)
USSR (NEUTRAL)	USSR (ANY POSITION)	USSR (ANY POSITION)	USSR (ANY POSITION)	USSR (ANY POSITION)

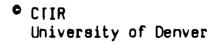
MESSAGE FROM THE SUPREME SOVIET PRESIDIUM



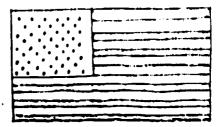
MESSAGE FROM THE SUPREME SOVIET PRESIDIUM



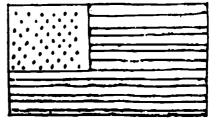




MESSAGE FROM THE EXECUTIVE COMMITTEE OF THE UNITED STATES



MESSAGE FROM THE EXECUTIVE COMMITTEE OF THE UNITED STATES





CUBAN MISSILE CRISIS OUTCOME

After the missile sites were found, the first response of the Ex Comm was for a "surgical air strike" to remove the bases. While this was being explored, President Kennedy, on the suggestion of his brother Robert, initiated a naval "quarantine" of Cuba, or "blockade," to prevent supplies for the missile bases from entering the island. Food and other nonmilitary carjo would be allowed through after the ship had been stopped and searched.

Meanwhile, the U.S. was on a massive, full-scale military alert with soldiers, weapons, and supplies pouring into Florida. The Soviets continued work on the missiles as ships approached the quarantine line. The U.S. Navy had orders to shoot any ship that would not stop to be searched.

On October 25, 1962, a Soviet ship reached the quarantine line (which had already been reduced in size to allow more time for negotiations) and stopped. Meanwhile, open and secret dialogue between the U.S. and U.S.S.R. was taking place.

On October 26, 1962, Premier Krushchev sent a long, impassioned letter to President Kennedy. Krushchev had himself written the letter in which he bemoaned the state of affairs that the two nations were in. He said that the U.S.S.R. would remove the missiles if the U.S. would pledge not to invade Cuba. Before this letter could be answered, a second letter arrived form the Soviet Union. It was short, terse, and demanded the removal of the U.S. missiles in Turkey in exchange for removal of the missiles from Cuba.

Robert Kennedy suggested that President Kennedy ignore the second letter and respond to the first. In addition, the Ex Comm decided that the U.S. would attack Cuba and the missile bases within two to three days if no progress was made in removing the missiles.

president Kennedy responded to Premier Khrushchev's first letter and the dismantling of the missile sites was begun by the Soviets and the Cubans.



NUCLEAR WAR UNIT



Title: FIRST STRIKE

Objectives:

To discuss a moral dilemma related to conflict and nuclear war topics. To perceive similarities between interpersonal conflicts and international conflict issues.

In introduce the nuclear war unit.

Grade Level: 7-12

Time: One class period

Materials:

Handout #15, "First Strike" Handout #16, "Thoughts on Nuclear War"

Procedures:

- 1. Introduce the unit on nuclear war by explaining that many issues will be discussed including the causes, results, and impacts of nuclear war. Ways of preventing nuclear war will also be explored. Tell the class you want to start the discussion of these topics on a more manageable level.
- 2. Distribute and read Handout #15 aloud. Then ask students to complete the questions at the bottom of the story.
- 3. Ask students how many of them said Jake should attack Rosco? Should not? Put those who said "yes" in one group, those who said "no" in another. If a large class, make more groups.

Have students in each group compare reasons for their decision and marshall arguments in preparation for a large group discussion of this story.

4. After small groups have completed their task, begin large group discussion and sharing of arguments. The following "probe" questions should help focus and move the discussion along.

Is the fight between the two individuals or the two gangs inevitable?

Who do you think the two gangs could represent in the "real" world? Is a fight between these superpowers inevitable?

What parallels do you see between the story and the conflicts that exist between the U.S. and U.S.S.R.?



Where did you see escalation in this story?

What role did rumor play in this situation? Did it escalate the conflict? How?

What is at stake for each side if the conflict does break out and one side wins, the other loses? What is at stake for the U.S. and U.S.S.R. if a war actually breaks out?

Could the fight at Lincoln be limited to just Jake and Rosco?

What peaceful solutions are available to resolve the conflict at Lincoln High? Assume you believe in using only peaceful methods and abhor violence. Solve the conflict.

What role did weapons play? Do they make conflicts more or less likely? More or less dangerous?

Assume Rosco wanted peace. How could be convince Jake not to beat him up? How could the U.S. or U.S.S.R. convince the other that they really wanted peace?

What role could the principal play at Lincoln? How is the principal like, and unlike, a body such as the United Nations?

Are fights and conflicts at any level inevitable in our world?

- 5. Conclude the discussion by asking each person to say which opposing argument they found most compelling and why. Explain to students that the conflicts revolving around nuclear war are not unlike the situation at Lincoln. Tell them to keep this story in mind during the course of the unit. Refer back to it when clarifying later information.
- 6. Distribute Handout #16. Ask students to fill-it-out candidly. Once done, discuss each statement. This is not a time for argument, rather it is one for the supportive sharing of feelings, ideas, and concerns. As factual issues arise, defer them to future activities. This worksheet is designed as a first step into the study of nuclear war content and issues. Try to give "airtime" to every student.



Title: VOCABULARY BINGO

Objectives:

To become familiar with nuclear war vocabulary. To gain an understanding of terms that will occur in following activities.

Grade Level: 7-12

Time: Two to three class periods

Handout #17, "Bingo Sheet" Handout #18, "Vocabulary" Materials:

Handout #19, "Nuclear War Terms Crossword Puzzle"

Procedures:

- Distribute Handout #17 to all students. Inform them that they are to try to achieve bingo by filling-in the squares vertically, horizontally, or diagonally. To fill-in a blank, they must ask a student to define a term on the sheet. If the student can define the term, they explain it and then sign the bingo sheet in the appropriate square.
- 2. Allow students approximately twenty minutes to find definitions, or wait until a student gets bingo.
- 3. Discuss terms that students feel they know. Clarify definitions when necessary.
- 4. As a homework assignment, students should try to fill-in every blank on their sheet. They may use parents, teachers, other students, etc. as sources.

DAY 2-3

- 5. Discuss terms students found in the homework assignment.
- 6. Distribute Handout #18. Have students record and discuss definitions. Be sure terms are clearly understood. This is a good place for a quiz once all terms are clarified.
- 7. Distribute Handout #19 to all students and have them complete the puzzle with or without their notes. Puzzle may be used as a review of nuclear war terms or an evaluation.

Follow-up: Have students create their own crossword puzzle, wordsearch, match game, or flash cards using nuclear war terms.



Teacher Vocabulary:

CONVENTIONAL WAR: War without nuclear weapons.

H-BOMB: Hydrogen bomb. This type of bomb is far more powerful than the Atomic Bomb. Both bombs work by releasing the energy that holds atoms together. The result is an explosion that is much like the process that fuels the sun. In this explosion, incredible heat, light, blast, and energy are released along with radioactive particles.

MEGAION: A blast with the power equal to 1,000,000 tons of INI.

HIROSHIMA: The site in Japan of the first use of an atomic weapon. The explosion took place August 6, 1945. A second blast on August 9, 1945, at Nagasaki, Japan, helped force Japan to surrender, thus ending WWII. These are the only examples of the actual destructive force of nuclear weapons. The Hiroshima blast had a force of 12.5 kilotons.

PENTAGON: The five-sided headquarters of the military services. Location of the Department of Defense. (Who is the Secretary of Defense?)

DEPARTMENT OF STATE: The cabinet office responsible for diplomacy and relations with other countries. (Who is Secretary of State?)

NORIH AILANTIC TREATY ORGANIZATION (NATO): The allies of the U.S. in western Europe and Canada who have agreed to mutually defend one another.

WARSAW PACI NATIONS: The Soviet Union's allies in eastern Europe. These nations provide a buffer between western Europe and the U.S.S.R.

SIRAIEGIC WEAPONS: Intercontinental ballistic missiles (ICBM) carrying nuclear warheads and submarine launched ballistic missilies (SLBM). Not battle field weapons, but those that travel from one country to another. These are the most powerful of weapons. Intercontinental bombers are also considerd strategic weapons.

M.I.R.V.: Multiple-Independently [argetable Re-entry Vehicle. A MIRVed missile carries several (up to ten) warheads that can each be guided to a different target. U.S. and Soviet missiles are MIRVed.

INTERMEDIATE RANGE NUCLEAR WEAPONS (IRBM): Shorter range nuclear weapons that are usually smaller in size than ICBM or SLBMs. These are the missiles now found in western Europe and the western regions of the Soviet Union.

IRIAD STRATEGY: The three-sided nuclear weapons strategy consisting of land-based missiles (ICBM), sea-launched missiles from submarines (SLBM), and air (long-range strategic bombers). The benefit is that if one or more legs are destroyed, there are others to fall back on.



MX MISSILE: The U.S.'s newest ICBM that is designed to be very powerful and accurate with a "first strike" capability. Basing strategies have been extremely controversial. MX stands for "Missile Experimental." The MX reinforces the land leg of the triad.

B-1 BOMBER: The U.S.'s newest strategic bomber that replaces the aging B-52. The B-1 is very expensive, ground-hugging and fast, but it is feared that it will soon be obsolete when a "stealth" or radar invisible manned bomber is developed. This would strengthen the air leg of the triad.

[RIDENI SUBMARINE: The U.S.'s newest strategic submarine. The missiles of one Irident could more than destroy every medium size city in the U.S.S.R. This strengthens the sea leg of the triad which is the most secure leg.

CRUISE MISSILE: Small (15'-20'), very accurate guided nuclear missile that can be launched from the ground, submarines or sirplanes (GLCM, SLCM, ALCM). Cruise missiles are inexpensive and easily hidden. This would cause problems in arms reduction talks (see Verification).

NEUTRON BOMB: Nuclear bomb with increased radiation and less blast. Designed to kill people without destroying buildings. Designed for use in Europe where the U.S. may have to fight the Warsaw Pact nations on NATO territory. This would preserve as much of that territory and its infrastructure as possible.

MUTUALLY ASSURED DESTRUCTION (M.A.D.): The theory that many say has prevented nuclear war, if either side launches weapons, so will the other, and both sides will be destroyed. The basis of deterrence.

DEFERRENCE: To block or stop. Deterrence is the concent that helps explain why nuclear weapons have not been used. By having enormous stockpiles of weapons, we have deterred each other from using those very weapons. Nuclear deterrence is having enough weapons to insure that they will never have to be used.

FIRST STRIKE CAPABILITY: The ability to knock-out the enemy's strategic forces before they could respond with launching. This runs counter to the ideas of M.A.D. Does it make war more or less likely?

STRATEGIC ARMS LIMITATION TREATY (SALT)/STRATEGIC ARMS REDUCTION TALKS (START): U.S./U.S.S.R. talks aimed at limiting the numbers of strategic nuclear weapons. SALT I has been ratified, SALT II was signed and not ratified by the U.S. START are now underway.

DISARMAMENT: Process of eliminating weapons so that their use is less likely.

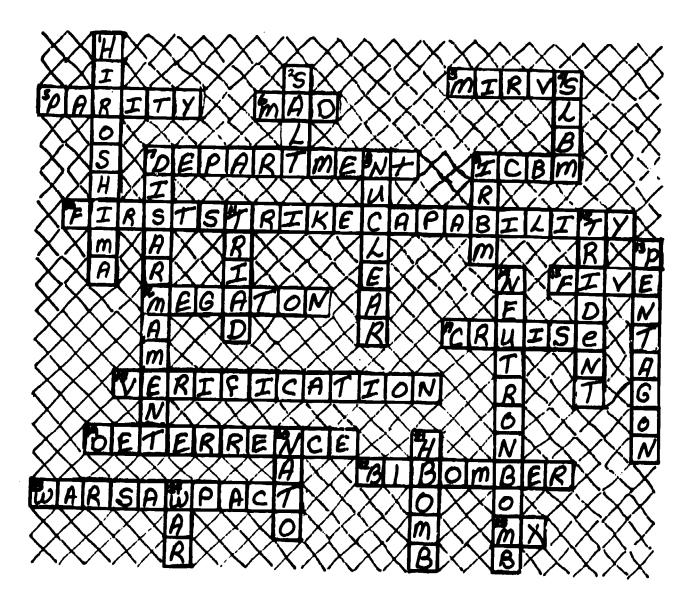
NUCLEAR WEAPONS FREEZE: A bilateral (both sides) halt to nuclear weapons production. The goal is that once a freeze is agreed to, reduction can take place.



VERIFICATION: Process of checking whether each side is following a freeze or nuclear weapons agreement. This can be done using existing scientific and espionage ("spying") techniques.

PARITY: Rough equality between two sides in amounts of weapons and destructive capabilities. If parity exists, then specific number differences take on less meaning in reduction or freeze talks.

Teacher's Key to Crossword Puzzle:





Title: MORE OR LESS?

Objectives:

To understand differing views regarding nuclear strength.

To define the idea of "Peace through Strength."

To clarify the concepts of nuclear deterrence, arms control, and disarmament.

To understand the differences between unilateral and bilaterial.

Grade Level: 7-12

Time: Une to two class periods

Materials: Handout #20, "More or Less?"

Procedures:

- 1. Ask students if they believe that the vast majority of people would agree with this statement: "No one wants a nuclear war." Why would people agree with such a statement?
- 2. Now ask "If this is so, why are there arguments over nuclear weapons? Why not eliminate them if no one wants nuclear war?" Solicit responses and then explain that today's lesson will help students understand some of the conflicting opinions about nuclear weapons.
- 3. Put the words disarmament, deterrence, and arms control on the board. By looking in their notes, students should be able to define them. Disarmament is the process of eliminating weapons. Deterrence means to block. Having nuclear weapons has tended to block their use because the results would be so terrible. Arms control means to limit in some way the number of weapons a nation has. Be sure these terms are clearly understood.
- 4. Introduce a new concept/phrase: "peace through strength." This is the notion that peace between the superpowers can best be maintained by keeping our nation as strong as possible militarily. By having a very strong "deterrent," we need not fear that an enemy will take advantage of us. Have students give an example of "peace through strength" in their own daily lives? Explain that this idea and nuclear disarmament often come into conflict as nations make nuclear weapons policy.
- 5. Once these terms are clear, begin the activity by passing out Handout #20. Go over the directions. Students should complete the worksheet on their own.



- 6. After each student has completed the worksheet, form small groups. Appoint a recorder for each group. Have groups share answers and try to reach a consensus on a response for each item. Tell students to circle those they cannot agree upon. Finally, have each group star the two most compelling arguments or statements for nuclear deterrence and for nuclear disarmament.
- 7. As a large group, compare responses and discuss the various meanings of each item. Focus on those that could support either side of the debate such as "actions speak louder than words" or "we must show the Soviets we mean business." Note that there are strong arguments on both sides of this issue. At this point, discuss the most compelling deterrence and disarmament statements. What makes them compelling? How could you counter them?
- 8. Once the Handout is well understood, explain the meaning of unilateral and bilateral as one-sided or two-sided. Ask students to brainstorm actions the U.S. and/or Soviets could take that would be unilateral or bilateral in the nuclear weapons arena. Examples are below.

Unilateral Actions

Bilateral Actions

Announce that we will not use nuclear weapons first Reduce some sort of weapons system Build a new type of nuclear weapon

Arms control agreements
Improved communication
techniques in emergencies
Test-ban treaties

Students should understand that the sup "nowers can act both unilaterally and bilaterally in trying to prevent nuclear war. They should also see that the actions of one nation can cause actions in the other nation. Finally, they should understand that many very well meaning people feel the best way to prevent nuclear war is to be 100 percent prepared to fight a nuclear war. Others feel that eliminating nuclear weapons is the only way to prevent nuclear war. What are student's responses to this dilemma?



Title: PARALLEL (IMELINES

Objectives:

To speculate on the future of the nuclear arms race. To recognize how perceptions of the future of the world affect perceptions of personal future.

Grade Level: 7-12

Time: One class period

Handout #21, "Timeline of Nuclear Arms Race" Handout #22, "World Timeline" Materials:

Procedures:

- 1. Distribute Handout #21 and discuss various events on the timeline and their effects.
- 2. Ask students to speculate on the continuation of the timeline and make predictions as a class. For instance 1988, 1990, 2000, etc.
- 3. Distribute Handout #22. As a group, have students think about major world events in their lifetimes to place on the timeline. Examples:

1969	Moon Landing
1973	Viet Nam War cease fire
1972-4	Watergate
1975	End of Viet Nam War
1976	Carter elected
1979	Hostages taken in 1ran
1979	U.S.S.R. invades Afghanistan
1980	Reagan elected
1982	U.S. Marines enter Lebanon
1983	U.S. invades Grenada
1984	U.S. Marines leave Lebanon

- 4. Have students predict events for the future on the World Timeline.
- 5. Have students compare the Nuclear Arms Race Timeline with the World Timeline. Discuss the following:

What are the most important events on the Nuclear Timeline and why?

How do events in the two timelines affect each other?

Would you change your world timeline and why?



Title: THE DAY THE BOMB FELL

Objectives:

To visualize the effects of the explosion of a one-megaton bomb. To understand various terms dealing with nuclear war.

Grade Level: 7-12

Time: Two class periods

Materials: Handout #23, "Map of Denver," or a map of your community or large

city in your area using scale of 1" = 2 miles

Handout #24, "Effects of the Bomb" Handout #25, "What Nuclear War Means"

Procedures:

1. Display overhead transparency of Handout #23, or your own map, and distribute copies to the students.

2. Locate the following landmarks on the transparency and have students locate them on their maps:

If using the Denver map: Downtown Denver

Major hospitals

Universities/colleges

High schools/middle schools

Students home

Parent's workplace

If using your own map: Well-known areas

Student's home Parent's work Student's school

Hospitals City center

3. After students have located the above places, read the following news flash to the class:

"Ioday at 7:56 pm Mountain Standard Time, the Soviets launched a nuclear attack on the United States. Colorado (or your own state) Governor Richard Lamm (or your governor) received the word from NORAD in Colorado Springs. At 4:16 pm, a one-megaton warhead was detonated 6,000 feet (approximately one mile) above the gold dome of the State Capitol (you name it!)."



4. Ask students to speculate on the following:

What are the effects of the bomb?

What are the various ways people would die?

How many miles out from the capitol (or city center) would buildings be totally destroyed?

What do you assume the effects would be at your home? At school?

- Distribute Handout #24. Trace lines from the handout onto the original map. Through this process students can visualize actual projected destruction of the area.
- 6. Distribute Handout #25. Explain terms and discuss effects.
- 7. Discuss the following with students:

Where are the major hospitals?

Where are the doctors located?

What type of transporation is available?

What has happened to drinking water?

What has happened to the police, paramedics, firefighters, etc.?

In a nuclear attack, would only one bomb fall on Denver (your town)? (An all-out nuclear war could involve 5,000 to 6,000 megatons on the U.S.)

8. Imagine the area outside the map and the long-term consequences in an all-out nuclear attack. Discuss with students.

Follow-up: Have students research Hiroshima and Nagasaki and the long-term effects of nuclear blasts.



Title: NOWHERE TO RUN TO?

Objectives:

To define civil defense.

To learn about fallout shelters and Crisis Relocation Planning.

To understand the potential postnuclear war society.

Grade Level: 7-12

Time: One to two class periods

Materials:

Handout #26, "A Short History of Civil Defense"
Handout #27, "Worksheet for A Short History of Civil Defense"

Handout #28, "Fallout Shelter"

Procedures:

- 1. Introduce this lesson by posing this question: "If there were a nuclear war, what would you and your family do?" Answers should range from doing nothing to running towards the blast, to seeking shelter or heading "for the hills." Do you believe society has or could make plans for its citizens in case of a nuclear war.
- 2. Distribute Handout #26. Have students read it underlining any words they don't understand.
- When students are finished with their reading, discuss vocabulary words.
- 4. Distribute Handout #27 and have students carefully complete the questions.
- Discuss answers to this worksheet. For questions #1-#5, check the understanding of key issues in the reading. On questions #6 and #7, ask students to synthesize the information they have read. Focus on the responses of individual students, challenging and probing for understanding.

Follow-up: Distribute Handout #28. It is an effective and fun follow-up activity.



Title: STUCK IN THE MIDDLE

Objectives:

To locate the member nations of NATO and the Warsaw Pact.

To understand the concept of limited nuclear war.

To understand European fears of nuclear war.

Grade Level: 7-12

Time: Two class periods

Materials: Handout #29, "The NATO and Warsaw Pact Nations"

Atlas for each student or group of students

Colored pencils

Handout #30, "They Won't Go Gently"

Procedures:

- 1. Mention to students that up to this point the discussion of nuclear war has focused on the two superpowers—the U.S. and U.S.S.R. If they recall the "First Strike" dilemma, each leader had other students as allies—together they formed gangs. Both the U.S. and U.S.S.R. have "gangs." This lesson will explain who they are and some other problems related to nuclear war.
- 2. Distribute Handout #29 and atlases to students. Tell students to complete the top section of the handout. Allies are nations (or people) that you trust and who have agreed to help you out if needed. Satellite nations are independent nations who are under some degree of control by a more powerful nation. Major decisions and policies are usually made or cleared by the powerful nation. Mention that in a world of 150+ nations, some are friends of the U.S., some are friends of the U.S.S.R., and many are "nonaligned" or haven't formally allied with either side. Other treaties exist besides NATO and the Warsaw Pact. (NATO--North Atlantic Treaty Organization--was officially formed in April 1949 to help contain the oviet Union and provide collective security for the U.S. and its allies in western Europe. The Warsaw Pact, signed in 1955, formalized relations and collective security arrangements between the Soviet Union and its Eastern Block allies. It was also a formal reaction to NATO. Membership in both groups has changed several times since their foundings.)
- 3. Using atlases and colored pencils make a color key and shade-in and label the NATO and Warsaw Pact nations. Precision on the world map is not crucial. The purpose is to show relative locations of the U.S., U.S.S.R. and their allies. Label as indicated on the worksheet.



- 4. Once completed, students should be able to clearly see for themselves the proximity of NATO and Warsaw Pact Nations. Discuss the tension that this could create. Mention that many experts look at Europe as a likely place for a superpower conflict to break out, if ever that should happen.
- 5. Prior to distributing Handout #31, discuss the following terms:

Remind students about Intermediate Range Ballistic Missiles. The U.S. version is the Pershing II, the Soviet's is the SS-20. Cruise missiles also have an intermediate range. These are weapons designed for use in the European "theatre."

Limited War: Most discussion thus far has focused on all-out nuclear war. Limited nuclear war would be a conflict where M.A.D. would not necessarily have to occur (say its theorists). A limited war could involve only attacks on enemy missile silos or be limited to a specific region such as Europe. Do you believe a nuclear war could/would remain limited? Does a belief in the possibility of limited nuclear war make the use of nuclear weapons more or less likely?

- 6. Distribute Handout #30. Ask students to read it and underline any words they don't understand.
- 7. Discuss vocabulary, then use the following questions to help students understand the reading:

What do some Europeans fear? Why?

In what ways have some Europeans responded to these fears?

Why might the U.S. and U.S.S.R. not be taking these weapons away from Europe?

If you lived in Europe, how would you respond to such a situation?

Are the superpower leaders really insensitive to the worries of Europeans? If not, why might they be acting this way?

8. Briefly explain that talks to limit these weapon systems in Europe have been taking place in Geneva, Switzerland since November 1981. A major issue is that each side fears the other will end-up stronger. The U.S. sees the U.S.S.R. as more powerful, the U.S.S.R. sees the U.S. as more powerful. No clear agreement has yet emerged. Meanwhile, plans go forward to deploy Pershing II and Cruise missiles while the U.S.S.R. deploys additional SS-20 missiles. (If interested, students can seek much more detailed information on these talks by checking in The Reader's Guide to Periodical Literature)

Follow-up: Collect current articles on this topic and make a bulletin board that shows the development of the U.S. and Soviet moves in Europe.



Title: NUCLEAR FREEZE DEBATE

Objectives:

To learn about the concept of nuclear weapons freeze through debate.

To research material of different viewpoints relevant to the nuclear arms

To recognize the validity of different views in controversy.

Grade Level 7-12

Time: Six to seven class periods

Materials:

Nuclear Freeze Debate Information Packet (Reproduce multiple copies of each document and create a small resource center in the classroom. Each student does not need an individual copy of the entire packet.)

Handout #31, "Nuclear Freeze Debate Research Form"
Handout #32, "Position Slips"
Handout #33, "Judges Instructions"
Handout #34, "Group Task Sheet"

Procedures:

- By this point, students should have a growing awareness of what nuclear war means and implies for society. There has yet to be a structured time to debate the need for nuclear weapons and the issues surrounding the arms Explain to students that they will spend the next week debating such issues. The focal point will be the Nuclear Freeze Resolution proposed in March 1982 in the U.S. House of Representatives (see Document #1). Conduct a quick review of the meaning of a nuclear freeze.
- Explain that for the next three to four class periods, the class will be researching the pros and cons of the Nuclear Freeze Resolution. initially all seek information on both sides of the question. days, they will randomly draw slips informing them that they will be pro. con, or a judge. Judges will do research on both sides in preparation for listening to the class debate. This three judge panel will ultimately decide, based only on evidence presented, whether to approve or dismiss the resolution. Having students work on both sides of the issue and then randomly taking positions forces students to become more open minded in viewing complex political issues. At the conclusion of the activity, students should be given time to express their true feelings on the nuclear freeze.



- 3. Now explain clearly the Nuclear Freeze Resolution. This may be done verbally or by reproducing a class set of Document #1. Explain the reasons for the freeze and exactly what the resolution proposes. Some terms may have to be clarified. Note that this resolution would not be binding in any way on the Soviet Union.
- 4. Once the resolution is explained, distribute Handout #31 to each student. Have several extra copies available for student use. Explain the use of the form for taking notes on the documents. Each student must examine at least four to five pro and antifreeze documents within the first two class periods. The more documents examined, the more forceful the cases will be. Encourage every student to examine every document. They do not need to be read in any particular order. The documents are intended to be only a start for students. Encourage them to seek additional nuclear freeze information from the library, current periodicals, community organizations, and other sources.
- 5. The remainder of the class can be devoted to quiet research.

DAY 2

6. This class period should be devoted to in-class research using the document packet. Check to see that students are taking clear notes and finding both pro- and antifreeze arguments. You might mention that several documents can be used in either a pro- or antifashion, depending on interpretation.

DAY 3

7. Spend the first twenty minutes of class quietly researching. Then spend ten to fifteen minutes reviewing pro- and antifreeze information that students have found. Any surprising information? Finally, draw slips (Handout #32) to determine who will be pro, anti and judges. Each class must have three judges. Divide the remainder equally in half. Remind students that the position that is presented the most clearly and completely will win.

DAY 4

8. Groups should use this time to research their particular position. Judges should be given Handout #33. Emphasize the need for objectivity and knowledge of both sides of this issue on the part of the judges.

DAY 5

9. This is the final day for research. Start class by putting the two groups together in separate parts of the room. Give each group Handout #34 after explaining the format of the next day's debate. Essentially, the debate (Day 6 and 7) will resemble a trial. Explain to the class that group spokespersons will first present an overview of their positions. Then, witnesses from each side will present key issues. Next, there will be open debate. And finally, the judges will recess to make a decision.



Discussion of the decision will conclude the activity. Emphasize that judges have been instructed to ignore comments that are not prefaced by a source reference. The specific agenda for the debate is found in Handout #33.

10. After groups have assembled and completed the worksheet, allow time for final research.

DAYS 6 AND 7

- 11. Arrange the room with a place for the three judges in the front and the remaining seats divided in half. Each group should be on a side. Notes are allowed (encouraged!!). Once settled, turn the class over to the judges. The teacher's task is to help maintain order, take notes for concluding discussion, and to encourage all to participate. There is a possibility that the debate could take only one period. If so, be sure that there is time for the judges to recess and make their decision. If the debate goes into a second day, encourage group members to regroup their thoughts and seek needed information.
- 12. After the judges' decision has been made, ask that they share the reasons for the decision. Further discussion can include:

What were the best arguments on both sides? Explain.

What are individual's true opinions about a nuclear freeze?

How realistic was this debate?

If a freeze were passed, how could pressure best be put on the Soviet Union to honor or join in such a freeze?

13. The activity can be concluded by asking each student to write a one-page essay discussing their position on the nuclear freeze.



Title: REACH OUT AND TOUCH SOMEONE!

Objectives:

To express personal opinions related to nuclear war.
To recognize that one person's ideas can affect others.

Grade Level: 7-12

Time: Two class periods

Materials: Drawing paper

Colored pencils and/or crayons Handout #35, "Project Options"

Procedures:

- 1. Explain that sharing opinions is a social responsibility in a democracy. Only by letting others know how we feel can we hope to change opinions. This activity provides students with an opportunity to let others know how they feel about nuclear war.
- 2. Students will have several options or formats for expressing their opinions. Each will be graded the same. Students should pick a format they are comfortable with. Distribute Handout #35. All projects are due by the end of the next class period. Explain each option.
- 3. Give the remainder of the class period and the entire next period to complete the project. Students can work on projects at home if they like. Be especially careful to help those writing letters to proofread and edit their work. Encourage use of a rough draft first.
- 4. Once all projects are complete, post poetry projects and those that are primarily or exclusively art around the room. Solicit feedback on the work from students. Encourage those who wrote letters to look for and share responses.

Addresses for Letters:

President The White House 1600 Pennsylvania Avenue Washington, D.C. 20500

Senator
U.S. Senate Office Building
Washington, D.C. 20510

Representative U.S. House of Representatives Washington, D.C. 20515



Title: A START AT STOPPING NUCLEAR WAR

Objectives:

To encourage free thinking of ways to make the occurrence of nuclear war less likely.

To brainstorm reasons for pursuing a hopeful future.

To recognize the influence individuals have on society.

Grade Level: 7-12

Time: Two class periods

Materials: Handout #36, "A Start . . . At Stopping Nuclear War . . ."

Posting paper

Markers

Procedures:

- 1. Mention to students that, by this point, they have spent several weeks exploring the issues related to nuclear war. Ask how they are feeling about nuclear war now? Does having more information make it seem better or worse? Is "ignorance bliss?" Tell students that you want to give them a concrete opportunity to figure out how to stop nuclear war. Also tell them that they need to look at the positive things around them that make preventing nuclear war so very important.
- 2. Distribute Handout #36. Read over each section so students understand them. Explain vocabulary. Some are complex, but certainly "translatable" into terms they can understand. Be sure students understand the task for each section. Allow the remainder of class to work on the worksheet. It is due the following day. Be sure you ask for careful and honest thinking.

DAY 2

- 3. Begin class by acking which items were easier and harder to answer. Why would some be easier than others?
- 4. Go around the room sharing and discussing suggestions for the first item. After all ideas are out, see if the class can decide on the most realistically effective one. Do the same for the second item.
- 5. For items #3, #4, and #5, have butcher paper available. List the responses for each item on separate sheets to post around the room. Title each list. Once the lists are complete, ask students to jut down the three best ideas from each list. Discuss their opinions.



6. As a conclusion, ask students the purpose of such an activity. Share their opinions, and your own. A major goal is to look at the positive side of life--and the little things everyone can do to make nuclear war a little bit less likely.

Follow-up: This brings the nuclear war unit to a close. It is now a good time to conduct a review and administer some sort of test or evaluation. However, it is hoped that this will not be the end of student interest in this topic. Students should be encouraged to keep discussing the topic, perhaps in after-school discussions. A group could be formed. And, in fact, there are now nationally organized student groups concerned about and acting against nuclear war. Local resource groups and organizations can also be contacted. Encourage students to keep learning even though the "unit" has ended.



STUDENT HANDOUTS FOR NUCLEAR CONFLICT UNIT



FIRST STRIKE

Lincoln High School has several groups of kids who have formed into gangs. Iwo of the largest gangs are the "Aces" and the "Kings." The Aces are led by Jake Edwards, are into fast cars and only wear black clothes. The Kings are led by Rosco Young, another tough and very popular senior. Kings wear army fatigues and also dig fast cars. Both gangs want to be the most powerful at Lincoln. Fights between members of these two gangs have been common in the halls and on the grounds of Lincoln High.

During the fall and winter, the Aces and Kings kept hassling each other as they sought to be the most powerful gang at Lincoln High. One day, Jake Edwards of the Aces overheard a King saying, "Me and my buddies are going to take care of those Aces once and for all." Jake reported what he had heard to his gang. Together, they decided that they had better start planning for a big fight. The Kings heard through rumors that the Aces were planning for a fight so they got together to plan their own strategy.

Last Tuesday, tensions rose at Lincoln. Rosco Young, on his way to school, saw Jake Edwards', girlfriend walking by herself. Rosco started calling her names and insulting Jake. Just before reaching school, Rosco said, "I'd start looking for a new boyfriend because the Aces are gonna get kicked!" Word of this incident spread through Lincoln like wild fire. Although each side was spoiling for a fight, many were worried because so many kids seemed to be carrying knives lately.

That evening, as these tensions and rumors were rising, Jake Edwards was walking home. In an empty alley, he spotted Rosco Young all alone. Jake was sure that he was much stronger than Rosco and thought that stopping and beating him up now would put the Aces ahead of the Kings at Lincoln. Rosco had not yet seen Jake.

Should Jake attack Rosco?

1. How would you answer this question?

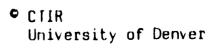
2. Give a good reason for your answer.

Developed in collaboration with Jaye Zola, and reprinted with her permission.



THOUGHTS ON NUCLEAR WAR

. When someone mentions the words "nuclear wa	
. My biggest fear about nuclear war is	
3. We have nuclear weapons to	
4. When it comes to nuclear war, I don't unde	
5. One thing I ward to know about nuclear war	or nuclear weapons is



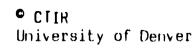




BINGO SHEET

CONVENTIONAL WAR	H-BOMB	MEGATON	HIROSHIMA	PENTAGON
DEPARIMENT OF STATE	NORTH ATLANTIC TREATY ORGANIZATION (NATO)	WARSAW PACT NATIONS	STRATEGIC WEAPONS	MIRV
INTERMEDIATE RANGE NUCLEAR WEAPONS (IRBM)	TRIAD	MX MISSILE STRATEGY	B-1 BOMBER	TRIDENT SUBMARINE
CRUISE MISSILE	NEUTRON BOMB	MUTUTALLY ASSURED DESTRUCTION (MAD)	DETERRENCE CAPABILITY	FIRST STRIKE
STRATEGIC ARMS LIMITATION TREATY (SALT) STRATEGIC ARMS REDUCTION TALKS (START)	DISARMAMENT	NUCLEAR WEAPONS FREEZE	VERIFICATION	PARITY







VOC ABUL ARY

1.	conventional war:
2.	H-Bomb:
3.	Megaton:
4.	Hiroshima:
5.	Pent agon:
6.	Department of State:
7.	North Atlantic Treaty Organization (NATO):
8.	Warsaw Pact Nations:
۵	Strategie Wespens
7•	Strategic Weapons:
1N.	MIRV:
, , ,	
11.	Intermediate Range Nuclear Weapons (IRBM):
-	



12.	Triad Strategy:
13.	MX Missile:
14.	B-1 Bomber:
15.	Trident Submarine:
16.	Cruise Missile:
17.	Neutron Bomb:
18.	Mutually Assured Destruction (MAD):
19.	Deterrence:
2 0.	First Strike Capability:
21.	Strategic Arms Limitation Treaty (SALT)/Strategic Arms Reducation Talks (START):
22.	Disarmament:
23.	Nuclear Weapons Freeze:

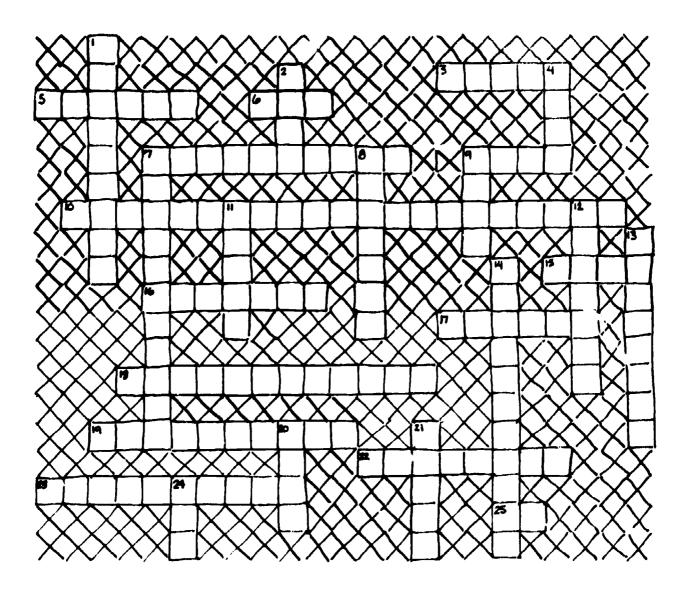


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24.	Verification:	 		
25.	Parity:			



NUCLEAR WAR TERMS CROSSWORD PUZZLE



ACROSS

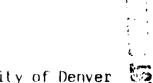
- 3. One missile capable of carrying several warheads
- 5. Approximate equality
- 6. We all go together when we go
- 7. Government agency in charge of diplomacy is the of State
- 9. Intercontinental missile
- 10 Knock out punch (3 words)
- 15. No. of sides on the Pentagon
- 16. Equal in force to 1 million tons of TNT
- 17. Missile that can be launched from ground, sea, and air

- 18. Checking on an agreement
- 19. Having enough weapons to insure they will never be used
- 22. Replaces the B-52 bomber (2 words)
- 23. USSR and friends (2 words)
- 25. Missile Experimental

DOWN

- 1. First use of nuclear weapons.
- 2. Strategic Arms Limitation Talks
- 4. Undersea Missiles
- 7. Getting rid of weapons

- Weapons
- Freeze
- 9. Intermediate Range Ballistic Missiles
- 3-legged strategy
- 12. Newest U.S. submarine
- 13. Military headquarters
- 14. Destroys people, not buildings (2 words)
- 20. The US and friends
- 21 More power than the A-Bomb
- 22. Combat without nuclear weapons is conventional





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MORE OR LESS

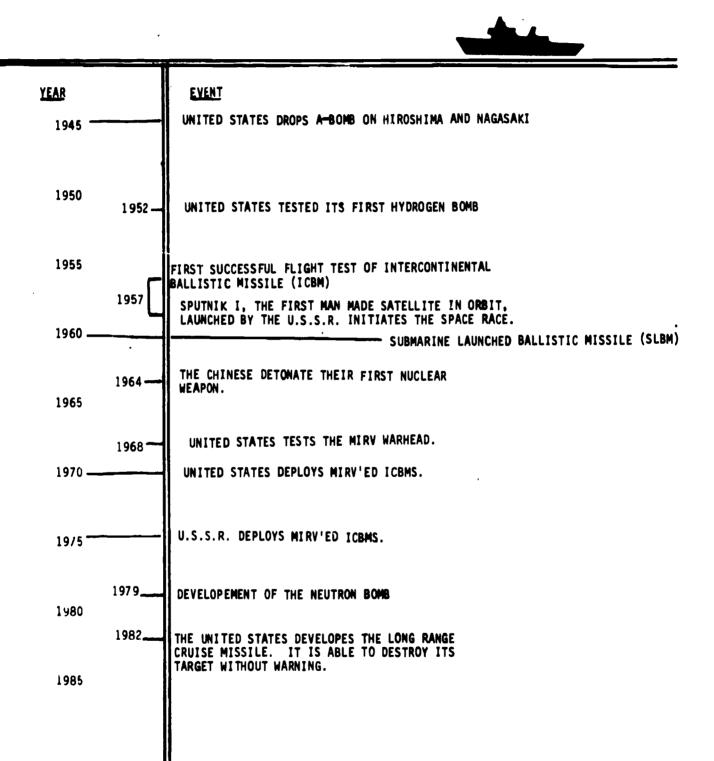
Directions: Below is a series of opinion statements that relate to nuclear war policy. Use your understanding of nuclear deterrence and disarmament to do the following:

- 1. Put an "A" in front of those statements that support the theory of nuclear deterrence (or peace through strength.)
- 2. Put a "B" in front of those statements that support a <u>nuclear disarmament</u> viewpoint (or, arms control.)
- 3. Put a "C" in front of those that could support either theory.

	The Soviet Union continues to try to aggressively spread communism throughout the world.
	The Soviet Union placed nearly 300 nuclear warheads close to Western Europe before the U.S. placed any near Eastern Europe.
	Good faith says that we cannot keep matching the Soviet's every weapon.
	History shows that the Soviet Union is extremely paranoid about protecting her borders and national security.
	The kid who everyone knows can defend himself never gets into fights.
	We must show the Soviets that we mean business.
	Both the U.S. and U.S.S.R. have enough nuclear weapons to destroy each other many times over.
emisph (Elicanistical)	While the U.S. delayed nuclear weapons production, the Soviet Union moved steadily ahead and now appears to have a far stronger nuclear weapons force.
	Actions speak louder than words.
	Nuclear weapons could cause the extinction of human beings.
***********	The chance of nuclear war occurring increases as we build more and more nuclear weapons.
	Good intentions aren't enough in a contest between "good" and "evil."
	Cooperation and trust is the best way to end the nuclear arms race.



TIME LINE OF THE NUCLEAR ARMS RACE





	· ·			
1970s-1980s	1990s-2000s	2000s-2010s	2020s-2030s	2040s-2050s

WORLD TIMELINE

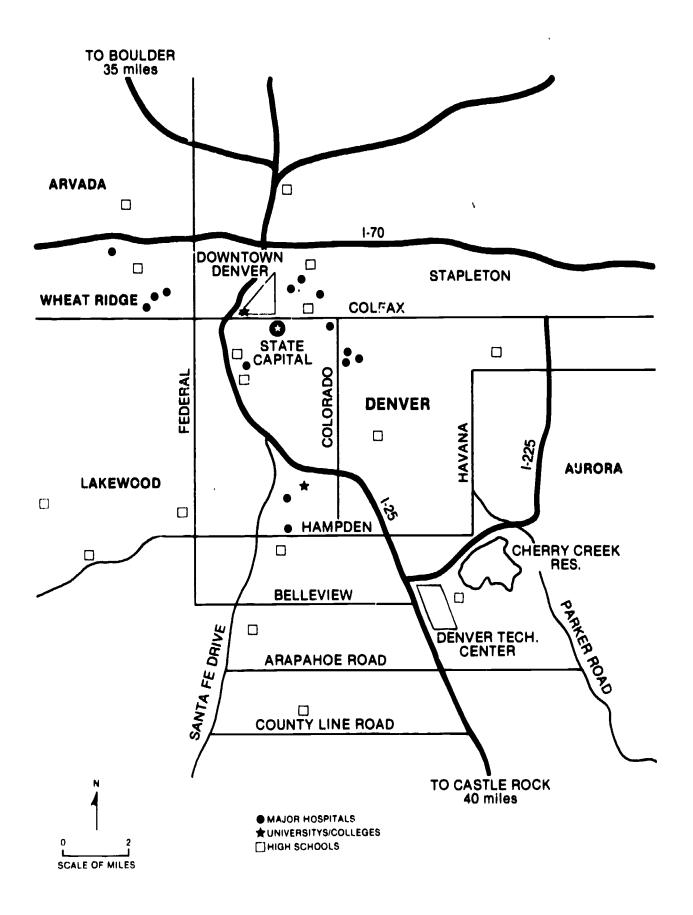
Handout #22

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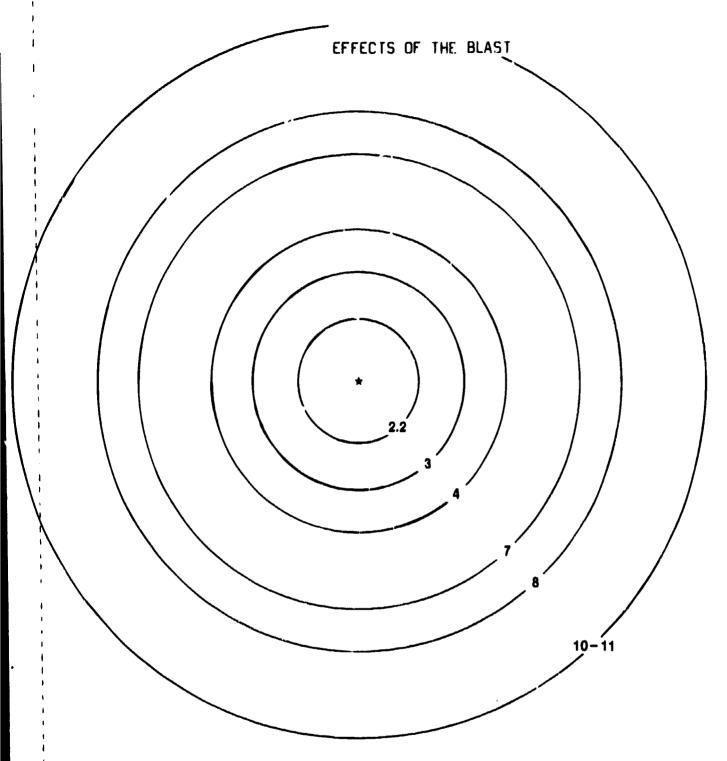
MAP OF DENVER



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Ground Zero (Capital building). All buildings leveled, winds up to 1,700 mph, massive radiation and heat. No survivors.

2.2 miles out: Winds at 400 mph, fatal burns, fatal injuries from flying debris. No survivors.

3 miles out: Reinforced structures gutted but standing, all residences flattened. Only 2 percent of population survives.

4 miles out: Winds 180 mph, 10 percent of buildings on fire. Half of population dies, rest suffer third-degree burns.

7 miles out: All homes destroyed, winds at 75-100 mph. Five percent of people dies, 45 percent seriously injured.

8 miles out: First residences standing. Victims exposed to fireball receive thirddegree burns.

10-11 miles out: Residences receive moderate damage. Unprotected people receive second-degree burns.

Source: The Denver Post, June 27, 1982. Reprinted by permission.



WHAT NUCLEAR WAR MEANS

All we know about conventional war tells us nothing about nuclear war. Conventional wars are somewhere else and last a long time. They are reported in the papers and on TV. If there is a nuclear war, it will happen to us here in our own state. It can end in minutes, but the harmful effects of radiation will last for centuries. No newspapers or news programs will tell the survivors what happened.

Iry to picture your world in ruins; millions of corpses, frightened and injured people, sick and blind people, starving and thirsty people, armed and desperate people. Imagine trying to find enough food, water, and shelter to live through a winter without electricity, gas, or oil. Imagine trying to grow crops without tractors, seeds, or fertilizers. Imagine then, trying to reorganize a society in the face of economic collapse, shattered industry, disrupted communications, and limited transportation. Imagine the civil disorder.

IMMEDIATE CONSEQUENCES OF AN H-BOMB EXPLOSION

The nuclear A-bomb that destroyed Hiroshima, Japan, equalled the destructive power of 12,000 tons of the common chemical explosive TNT. Modern nuclear treapons (H-bombs) are rated in millions of tons of INT.

The following description assumes the explosion of a 1-megaton bomb (equal to 1,000,000 tons of TNT) detonated one mile above ground. Such a bomb is smaller than hundreds in the Soviet arsenal, but large enough to destroy much of Denver, Colorado. It would devastate more than 80 square miles, about 17 times the area destroyed at Hiroshima.

About half the energy of the nuclear explosion will go into blast effect. About one-third will appear as light and heat, and the rest as nuclear radiation and the electromagnetic pulse. These effects overlap. Taken together, they will kill an enormous number of people.

Light and Heat

The first sign of a nuclear explosion is a momentary flash, much brighter than the sun, that can blind a person from several miles away. The vaporized material of the bomb expands in seconds to form a huge fireball of intensely hot, brilliant's glowing gas about a mile wide. The heat from the explosion can start fires for more than five miles and will kill a person if much nearer. It chars flesh within seven miles and blisters exposed skin at nine miles.

From "Boulder County Nuclear War Education Booklet," Boulder, COP Nuclear War Education Committee, September 1982, and "Pestilences Predicted for Survivors of N-War," Rocky Mountain Cows, November 12, 1981.



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Blast

The explosion creates a blast or shock wave of enormously compressed air that expands faster than the speed of sound. Within two miles, death and destruction are nearly total. At five miles, buildings are severely damaged and one has a 50-50 chance of being killed or injured.

Nuclear Radiation

The bomb also emits a burst of deadly nuclear radiation. The small bombs dropped on Japan caused radiation that killed and injured beyond their smaller areas of blast destruction. The negative results of long-term radiation may affect people who are as far away as 200-300 miles from "ground zero".

Electromagnetic Pulse

The explosion also produces a burst of radio energy — the electromagnetic pulse (EMP) — that damages unshielded electrical equipment much as lightning does. Experts believe that the EMP from one large bomb exploding high above the U.S. would disable unprotected power, computer, and communication equipment throughout the nation. There would be no television, little telephone or radio, and very limited contact with the rest of the world.

It must be emphasized that these effects assume an air burst in which the bomb is exploded so high that the fireball does not touch the ground. A bomb used to destroy a missile silo or other "hard" target would be exploded on the ground (a ground-burst).

Our government predicts that in an all-out nuclear war, about a dozen H-bombs will explode in the Denver-Metro area. Minutes later, after the attack, what is the situation outside the areas of total destruction? Thousands of people and animals are dead; thousands more suffer burns or other injuries; many are blind, deaf, panic-stricken. Radioactive dust is falling downwind from the ground-burst explosions. Buildings, wreckage, fields, and forests are burning for miles around each explosion. Smoke and dust darken the sky.

The vaporized bomb material condenses and falls to earth as dust. This fallout emits radiation that kills or injures. If exposed to a large dose, vomiting, skin hemorrhage, internal bleeding, and hair-loss occur. Death probably occurs within a month or two. A dose too small to cause immediate injury weakens body defenses and increases the risk of infection, cancer, and birth defects.



Radioactive dust that rises high in the air is widely spread by winds. Most fallout settles within a few weeks, but some remains in the upper atmosphere for several years and spreads over most of the world. Coarse radioactive dust from a ground burst settles quickly, most near the crater, but some downwind in a diminishing plume. It can be fatal to unsheltered persons fifty miles away and dangerous at 200 miles. Depending upon wind speed and direction, fallout from heavily bombed missile silos to the northeast could reach the Denver area.

So ends the first, but not the worst period for the survivors. The widespread destruction has stopped shipments of food, fuel, and medicine. Farming has halted. In undamaged areas, loss of electric power has disrupted water and communciation systems. Police protection is severely limited. The few surviving doctors and nurses are overwhelmed by the sick and injured. Epidemics are starting. Most hospitals are destroyed. Fire control is hindered by lack of fuel and water. There is no disaster relief, no help from outside, no hope of rescue.

During the first weeks after the attack, the corpses will be buried, burned, or abandoned. The epidemics will spread. The severely injured will be left to die. Fires will burn out.

CONSEQUENCES IN THE AFTERMATH OF AN H-BOMB EXPLOSION

In an all-out nuclear war, the blasts and fires will have sent huge amounts of dust, ash, and smoke into the atmosphere. Recent research indicates that all of this airborne material would have the effect of blocking a large percentage of the sun's light and heat that reach the earth's surface. The result would be a lowering of temperatures to below freezing in the northern hemisphere for a period of several months, or longer. Similar, yet less dramatic changes would also occur in the southern hemisphere. During this "nuclear winter," crops would die, people would freeze or starve to death, and animal life would be severely affected. As a result, the possiblity of extinction exists for numerous plant and animal species, including human beings.

Survivors

Even without a "nuclear winter," starvation would be a threat to survivors of a nuclear war, but the greatest danger would be disease. Radiation exposure could weaken the survivors' ability to fight infection. Antiobiotics would be in short supply, clean water would be scarce, and sewer systems would be destroyed—ewncouraging outbreaks of hepatitis, E. coli, and salmonella infections, dysentery, and typhoid. The immunity of animals would also be weakened.

Food would take on an immense value, and persons or regions with food supplies might be reluctant to relinquish their holdings.



A SHORT HISTORY OF CIVIL DEFENSE

Civil defense is a term used to describe plans that would go into effect in any emergency to protect a nation's citizens. These emergencies could include floods, hurricanes, tornadoes or nuclear war. Civil defense for nuclear war has gone through several phases since the early 1960s.

In 1960, the Pentagon suggested that the U.S. needed to convince the Soviets that we were ready to wage a nuclear war. Serious civil defense plans would show that the U.S. "meant business." The major suggestion was to start a massive program of building and supplying "fallout shelters." These would be places for citizens to go to in case of nuclear war. They would be safe from fallout and radiation and provide necessary food and medical supplies.

President Kennedy asked Americans to build shelters in their backyards or basements. U.S. Steel sold, for \$1,800, a prefabricated steel shelter that could hold six people. General Mills sold a new food called "MFP, Multi-Purpose Food," for use in shelters. At the time, Life magazine predicted that with fallout shelters, "97 out of 100 people can be saved." Life published with fallout shelters, along with a photograph of a Texas plans for several types of shelters, along with a photograph of a Texas bobbysoxer sipping a Coke and talking on the phone in fallout-proof contentment. Hammacher Schlemmer advertised a deluxe model in the New York Times: "It protects from radioactive fallout. It is a haven from hurricanes, tornadoes, cyclones. . . . (It) is a beautiful addition to any family's plan for pleasant living . . . ideal as a den, study, or guest room." About the same time, shelter owners were quoted in the press as saying they would shoot any unprepared neighbors who tried to "horn-in" on their shelters when the bomb fell, and religious leaders proceeded to sclemnly debate the ethics of the shotgun at the shelter door.

Public skepticism and Congressional opponents brought the shelter boom to a halt, and by the end of the decade, civil defense was practically forgotten except by those who liked to tell stories of how, in elementary-school "air-raid drills," they had been instructed to climb under their desks for protection from atomic bombs.

Civil defense has now, however, come into an uncertain revival. Its new emphasis on Crisis Relocation Planning (CRP) recalls a period in the 1950s when city evacuations were part of civil defense plans (in fact, one justification for the interstate highway system was its use in civil defense emergencies.) Those evacuation plans were abandoned as obsolete when the Soviet Union developed interecontinental ballistic missiles, cutting nuclear attack warning time from hours to minutes. That what was obsolete then is now all the rage is just one of the odd aspects of the current civil defense controversy. And controversy it is!



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The aim of the CRP program, which has gone into high gear under the Reagan administration, is to: develop detailed state-by-state plans for quickly moving 150 million Americans out of "risk areas" into "host areas" that could shelter and feed them. The national program is coordinated and financed by the Federal Emergency Management Agency (FEMA). As its details begin to emerge, the plan to move 150 million American from high-risk areas under crisis conditions is being met with considerable skepticism.

Proponents of CRP, or for that matter, any civil defense program now or anytime, must first overcome what they consider to be an unfair disadvantage. That is, the widely held belief that, in a nuclear war, we are all going to die.

"There's a myth." said Rep. Donald Mitchell (R-NY). "That if the explosion doesn't kill you, the fire will kill you; that if the fire doesn't kill you, the 1,000-mile-per-hour winds will kill you; that if the winds don't kill you, the fallout will kill you. We have to tell people that they can survive a nuclear war." If they think they can't, of course, they're likely to think that civil defense is a stupid waste of time. In 1974, the National Academy of Sciences undertook a study of the "long-term worldwide effects of multiple nuclear weapons detonations." It concluded that "Homo sapiens--but not necessarily his civilization--would survive a major nuclear exchange." However, not all experts agree on this point. Jonathan Schell, in his book The Fate of the Earth, maintains that all-out nuclear war could very likely result in the extinction of human life. Recent research presents the possibility that a large-scale nuclear war could cause dramatic climate changes resulting in a "nuclear winter." All agree that the destruction to society, civilization, and the global environment would be tremendous.

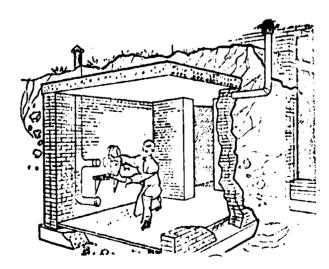


Illustration of man building a fallout shelter, from a 1962 booklet distributed by the United States government.



Millions of people in the vicinity of nuclear blasts would be instantly vaporized, and millions more would burn to death or die within days from radiation poisoning. But federal civil defense planners assert 80 million or more Americans would survive the short-term effects of a massive Soviet nuclear attack (although 30 million or so would be injured or sick), and with the implementation of CRP, as many as 150 million could survive. Critics of civil defense do not argue with those numbers, but they echo the statement made by, of all people, Nikita Khrushchev: "The survivors would envy the dead." Says Rep. Tom Downey (D-NY), "Life as we know it would come to an end. We'd be holed up in cellars with machine guns trying to protect five cans of tuna fish."

This glum view, however, is definitely not shared by civil defense planners, whose studies present a far more optimistic picture of America after a nuclear war. A Post-Nuclear Attack Study (PONAST II), undertaken in 1972 by the Department of Defense with other government agencies, is very positive. Based on a "computer-processed simulation" of a 1971 nuclear war, PONAST reports that 109 million Americans would survive the attack and that six years after the war the economy would have recovered to such an extent that the survivors "would have approximated a 1965 per capita standard of living, except for automobile production." By the seventh year, the study says, a 1970 standard of living would have been achieved.

Well, perhaps. Nobody really knows what a nuclear war would be like because we've never had one. But everyone, even critics of civil defense, acknowledge that many Americans would survive, at least for a While. Whether they would survive to duel over limited resources is a matter of debate, but survival comes first. And there, one might reasonably suppose, lies the justification for Crisis Relocation Planning—that survival is possible, and that, with CRP, more survival is possible.

But one would be wrong. CRP is only secondarily about survival. Here is the view of Bardyl Tirana, overseer and proponent of CRP: "I do not think CRP is, in its first instance, done to save lives once a war breaks out. It is done to help prevent a war from breaking out in the first place."

Thus, civil defense is not seen as an emergency lifesaver. It is seen as part of America's strategic deterrent. It is seen, ironically, almost as a weapon.

In other words, the argument goes like this: If we don't have CRP, the Soviet Union could evacuate its cities, do something provocative, and dare us to attack, knowing that we couldn't evacuate our cities (except spontaneously and haphazardly) in preparation for their counterattack. If we do have CRP, and the Soviet Union evacuates its cities and does something provocative, then we could evacuate our cities, giving the Russians good reason to think we would dare to attack. However, since the Russians would be well aware that we have CRP and could match their evacuation with our evacuation, they would be



less likely to evacuate in the first place, or, for that matter, to do something provocative. Thus, if we have CRP, it is unlikely that we will need it. We need it only if we don't have it. And we don't have it. So we need it. Not everyone agrees with this logic, "It's a crazy way to spend money," Representative Les Aspin (D-Wis) says. "If they evacuate, we have them in a blackmail situation. How long can they sit out in the countryside with their cities and all their industries sitting idle?"

Thus, the arguments over civil defense and CRP continue. Many communities, including Boulder, CO, have officially rejected CRP plans. Society must still come to some decision on what, if any, is the best way to protect itself in case the unthinkable happens.



WORKSHEET FOR A SHORT HISTORY OF CIVIL DEFENSE

1.	What does "civil defense" mean?
2.	What are the purposes of fallout shelters?
3.	What problems can you think of with the use of fallout shelters?
4.	What is "Crisis Relocation Planning?"
5.	List pros and cons of Crisis Relocation Planding.
	PROS CONS
6.	Support or argue against CRP. Give a good, clear argument. (Use back of this page if necessary.)
7.	Devise an effective civil defense strategy in case of nuclear war for your community, or, clearly explain why civil defense in case of nuclear war makes little sense. (Use back of the page.)



THE NATO AND WARSAW PACT NATIONS

1.	Define	the	term	"allies."		 	
2.	Define	the	term	"satellite	nations."		

The NATO nations of the U.S., Canada, Denmark, Great Britain, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Greece, Turkey, and West Germany are considered allies of each other.

The Warsaw Pact Nations of Bulgaria, Czechoslovakia, East Germany, U.S.S.R., Hungary, Poland, and Rumania are considered satellites of the Soviet Union.

3. Using a color key, shade in the NATO and Warsaw Pact Nations on the map below.





House Joint Resolution For A Freeze and Reduction In Nuclear Meapons

as introduced in Congress on March 10, 1982.

Interest, the greatest challenge facing the earth is to prevent the occurrence of nuclear war by accident or design:

Interess, the nuclear arms race is dange-ously increasing the risk of a holocaust that would be humanity's final war; and

is needed to halt the nuclear arms race and to reduce the risk of nuclear war: Now, therefore, be it

Resolved by the House of Representatives and the Senate of the United States of America in Congress assembled,

- (1) As an immediate strategic arms control objective, the United States and the Soviet Union should:
 - (a) pursue a complete halt to the nuclear arms race:
 - (b) decide when and how to achieve a mutual and verifiable freeze on the testing, production, and further deployment of nuclear warheads, missiles, and other delivery systems; and
 - (c) give special attention to destabilizing weapons whose deployment would make such a freeze more difficult to achieve.
- (2) Proceeding from this freeze, the United States and the Soviet Union should pursue major, mutual, and verifiable reductions in nuclear warheads, missiles, and other delivery systems, through annual percentages or equally effective means, in a manner that enhances stability.

(Members of Congress who voted for a freeze on August 5, 1982 are listed on the other side.)



U.S. Blamed for Escalating Arms Race

Report Interpreted as Pro-freeze

By DON WATERS Associated Press

WASHINGTON — Although Defense Secretary Caspar W. Weinberger doubtless would be appalled, critics of the Reagan administration's military buildup suggest his alarming report on the growth of Soviet military might reinforce the need for a nuclear weapons freeze.

In his preface to the second edition of "Sovi-

Analysis

et Military Power," a slick-paper, magazine-

format publication released this week, Weinberger ticked off the advances that the Kremlin has made in strategic and nuclear weaponry just since the first version was released in September 1981: test flights of new landbased intercontinental missiles, Blackjack strategic bombers, cruise missiles and Typhoonclass submarine missiles, as well as the mcdernization and forward deployment of intermediate-range missiles and groundattack aircraft capable of carrying nuclear weapons.

"Ironically, Mr. Weinberger

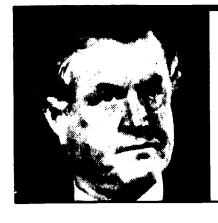
"Ironically, Mr. Weinberger has argued unintentionally in favor of a bilateral freeze (on development and deployment of nuclear weapons)," Sen. Edward M. Kennedy, D-Mass., said after the pamphlet's release Wednesday "... His report amounts to a case ... tor stopping any threatening trends now and preserving the existing balance of forces."

Stan Norris, a senior staff member of the Center for Defense Information, agreed. His organization, a privately-funded one, is headed by retired military officers who are skeptical of the buildup.

Norris said the report raises the question of which of the superpowers is perpetuating the arms race.

Noting the report's assertion that much Soviet weaponry appears to be copied from Western models, Norris said:

"We've got a B-1 bomber, and they're going to have a Black-



'Ironically, Mr.
Weinberger has argued unintentionally in favor of a bilateral freeze (on development and deployment of nuclear weapons).'

—Sen. Edward Kennedy

jack bomber.

"We have a Trident submarine, and they're going to have a Typhoon.

"We have an AWACS (airborne warning and control system plane), and they're going to have an AWACS."

What is important, Norris said in an interview, "is the phase and the timing of this. We're going forward with these deployed systems ... and they're (the Soviets) not there. They're still mid-'80s, late-'80s (for deployment)."

"So, who is doing what to whom in terms of stimulating this thing?"

The first edition of the publication drew some criticism because it contained no information on U.S. or allied military strength to give readers a basis for comparison.

The new version does this, and in some cases acknowledges that the United States and its NATO allies hold the edge over the Warsaw Pact, especially in fighters and other tactical aircraft.

But even where this is stated, a condition is attached.

"U.S. and NATO allied forces have also been strengthened in recent years, but at a less rapid and impressive rate than the Warsaw Pact's," the publication said.

The maguzine has been in preparation for more than a year. Its release came the day

after the House Foreign Affairs Committee approved a profreeze resolution and congressional budget writers were preparing to set the shape of spending on defense and other programs in the upcoming fiscal year.

The brochure contains some photographs and other information about Soviet weaponry and its deployment that had previously been held secret by intelligence agencies.

Both defense stalwarts and skeptics such as Norris said they'd like to see more made public, though predictably for different reasons.

Rep. William L. Dickinson, R-Ala., who joined a dozen fellow members of the House Armed Services Committee at a news conference Thursday to promote the book, complained that overclassification was hampering the pro-defense cause.

The Pentagon has asserted that the Soviets' SS-. intercontinental missile was more accurate than any U.S. counterpart, but will not make the specifics public even though "the Soviets knew we know," Dickinson said.

'I'm all for declassification," Norris agreed, arguing that some of the information might undermine rather than support assertions that the Pentagon has made in the past.

Source: Boulder Daily Camera, March 13, 1983. Reprinted by permission.



AN OVERVIEW OF STRATEGIC NUCLEAR WEAPONS

	United	States	Soviet Union		
	Delivery		Del	ivery	
	•	Warheads	Systems	Warheads	
ICBMs	1052	2152	1398	5230	
SLBMs	544	4960	989	2049	
Bombers	316	2228	150	300	
TOTAL	1912	9340	2537	7579	

Source: Union of Concerned Scientists.

	United States	Soviet Union
Land-based Intercontinental Ballistic Missiles	1,052	1,398
Submarine-based Missiles	578 578	989
Long-range Bombers	316	150
Total Launchars	1,944	2,537
Nuclear Warheads	9,000	7000
Total Explosive Power	2,968 Megatons**	5,111 Metatons**

^{**}One megaton equals the explosive power of one million tons of TNT. Source: U.S. Dept. of Defense



Reagan Blasts N-freeze Vote As 'Dangerous'

Camera Wire Services

The House Foreign Affairs Committee on Tuesday called for a "mutual and verifiable freeze" of U.S. and Soviet nuclear arsenals.

Proponents forecast that the freeze resolution, endorsed by the committee on a 27-9 vote, will win full House approval but face stiff resistance in the Senate. The resolution urges that the so-called START talks in Geneva, Switzerland, concentrate on achieving a freeze.

President Reagan, speaking in Orlando, Fla., denounced on Tuesday the "very dangerous fraud" of the committee's call for a freeze and urged Christian evangelists to spread from their pulpits his crusade against the "evil empire" of the Soviet union.

Reagan's assault upon freeze advocates and "those who would place the United States in a position of military and moral inferiority" followed by two hours the House Foreign Affairs Committee's formal endorsement of the weapons proposal.

The panel approved the freeze resolution as an estimated 5,000 supporters cheered outside the Capitol. A similar measure, calling for a "mutual, verifiable" halt in the nuclear weapons race, failed in the House last year by a scant two votes, but sponsors are confident of passage this time in

the chamber. A stiffer test is expected in the Senate.

Reagan, meanwhile, asked church leaders to spread his anti-freeze message from their pulpits, on ground the United States and the Soviet Union are locked in a "struggle between right and wrong, good and evil."

He called the Soviet Union an "evil empire" bent on aggression and denounced totalitarian states as "the focus of evil in the modern world."

Reagan spoke before the 41st annual convention of the National Association of Evangelicals, which claims a membership of 38,000 churches representing 77 denominations and 3.5 million people. The speech was intended to repair his relations with conservative supporters, and Reagan renewed his commitment to constitutional amendments authorizing prayer in public schools and banning abortion.

But Reagan's address, rewritten at the last minute, zeroed in on the freeze proposal, which he declared would only serve to benefit the Soviet Union and hurt the United States.

"We will never stop searching or a genuine peace, but we can assure none of these things America stands for through the so-called nuclear freeze solution proposed by some," Reagan said. "The truth is a freeze now (Continued)

Source: Boulder Daily Camera, March 9, 1983. Reprinted by permission.



would be a very dangerous fraud, for that is merely the illusion of peace."

"The reality is that we must find peace through strength," said Reagan. "I would agree to a freeze if only we could freeze the Soviets' clobal desires."

A freeze at current levels of weaponry would remove incentives for the Soviets to seriously negotiate at arms talks in Geneva and would diminish chances for achieving major arms reductions, said Reagan.

"Instead, they would achieve their objectives through the freeze," Reagan added. "A freeze would reward the Soviet Union for its enormous and unparalleled military buildup. It would prevent the essential and long-overdue modernization of U.S. and allied defenses, and would leave our aging forces increasingly vulnerable."

He said that before a freeze could be workable there must be extensive negotiations on the weapons that would be limited and on the measures that would be taken to insure effective compliance and verification.

"The kind of a freeze that has been suggested would be virtually impossible to verify," Reagan said.

Reagan was frequently applauded by the audience.

But in Washington, Sen. Edward M. Kennedy, D-Mass., assailed the administration's stance that the United States must first build up its own nuclear forces before meaningful

arms control accords can be reached with Moscow.

"I call that voodoo arms control," Kennedy told a cheering crowd of freeze supporters who gathered under rainy skies on the west lawn of the Capitol.

U.S. Capitol Police estimated that 4,000 to 5,000 people turned out for the pro-freeze rally, while 600 to 700 freeze opponents took part in a separate demonstration nearby.

At the counter-rally sponsored by the Coalition for Peace Through Strength, the Rev. Jerry Falwell, head of the Moral Majority, said he was confident that by the 1984 election "the American people will have repudiated the freezeniks."

In New York City, meanwhile, Episcopal Bishop Paul Moore Jr. declared "I do not feel it's appropriate for the president of the United States to tell the churches what their Christian position should be, particularly when he says it's an issue of right or wrong, when he knows full well the Christian community in this country is very divided."

Reagan urged the religious leaders not to be misled by Soviet assurances about their interest in peace.

"Some would have us accept them at their word and accommodate ourselves to their aggressive impulses," said Reagan. "But if history teaches anything, it teaches: Simple-minded appeasement or wishful thinking about our adversaries is follyit means the betrayal of our past, the squandering of our freedom.

"So I urge you to speak out against those who would place the United States in a position of military and moral inferiority," Reagan said.

"So in your discussions of the nuclear freeze proposals," he added, "I urge you to beware the temptation of pride — the temptation blithely to declare yourselves above it all and label both sides equally at fault, to ignore the facts of history and the aggressive impulses of an evil empire, to simply call the arms race a giant misunderstanding and thereby remove yourself from the struggle between right and wrong, good and evil."

He urged them "to resist the attempts of those who would have you withhold your support for this administration's efforts to keep America strong and free, while we negotiate real and verifiable reductions in the world's nuclear arsenals and one day, with God's help, their total elimination."

The speech comes on the eve of the release of a new study by the Reagan administration on increases in Soviet military power.



NUCLEAR FREEZE DEBATE

The era of armaments has ended, and the human race must conform its actions to this truth or die.

President Dwight David Eisenhower, 1956

Examining the capabilities of a single nuclear submarine reveals its incredible destructive potential. A Poseidon sub comes equipped with 16 missiles. Each missile can carry 10 or more warheads, each equivalent to 3 Hiroshima bombs, that can be directed to separate targets. (The Poseidon substhat have been retro-fitted with newer !rident I missiles have even more powerful warheads.) Altogether, the 160 bombs on a single Poseidon can rrop the equivalent of more than 500 Hiroshimas on the Soviet Union. A single sub would therefore be capable of simultaneously attacking such cities as Moscow, Leningrad, Kiev, Tashkent, Baku, Kharkov, Gorky, Novosibirsk, Kuibyshev, and Sverdlovsk-each having a population in excess of a million-and still have at least 150 warheads available to wipe out other citites, villages and hamlets. This is the power of just one Poseidon sub, of which the United States has thirty-one.

Beyond the Freeze, Union of Concerned Scientists

At the moment, the strategic strength of both sides is roughly equal, and it is likely to remain so for some time. Even a major effort by one side or the other could not easily upset this balance. Both sides are embarking on large new weapons programs which tend to capture media attention and tend to distract from the real issue—the existence of an arms race that we know is steadily increasing the risk of nuclear war but don't know how to stop.

Nuclear War: What's In It for Your?, Ground Zero

The idea of strategic nuclear superiority and inferiority has no meaning. The important thing to remember is we both have 'housands of nuclear weapons. There is nothing realistic about being ahead or behind when he has 6,000 and you have 9,000 and it only takes 400 megatons to destroy a country.

Admiral Noel Gayler, U.S.N., Ret.



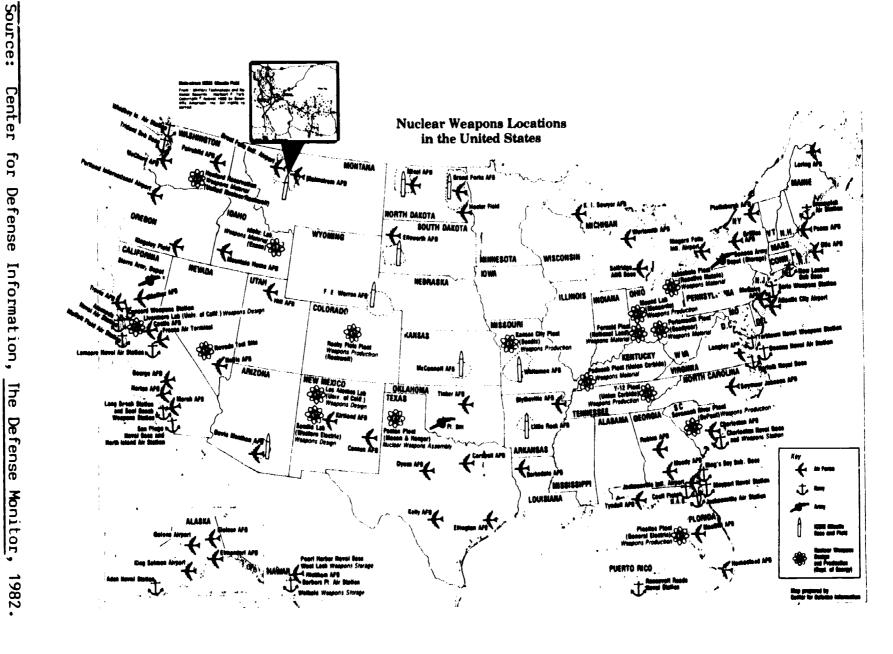
I would not for a moment exchange anything [with the Soviets] because we have an immense edge in technology.

Casper Weinberger, Secretary of Defense, April 29, 1982

Missiles will bring antimissiles, and antimissiles will bring anti-antimissiles. But inevitably, this whole electronic house of cards will reach a point where it can be constructed no higher.

General Omar N. Bradley, 1957





BEST COMMINICALE

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DEFENSE PERSPECTIVE OF PROPOSALS TO FREEZE NUCLEAR FORCES AT THEIR CURRENT LEVELS

The Reagan Administration has under way a two-part plan to achieve a more secure and stable world. First, we have initiated a strategic modernization program which will re-establish the margin of safety we need in our nuclear deterrent forces. This will strengthen our ability to deter Soviet aggression and convince the Soviet Union that Moscow's military buildup will produce no advantage. Second, as the President announced in his November 18, 1981, National Press Club speech, we have already begun arms control negotiations. They are designed to lower significantly the level at which this balance is maintained and to do so in a manner that is both verifiable and stabilizing. The "zero option" proposal is the first step in a comprehensive arms control strategy.

This Administration, like its predecessors, believes that the best way to avoid war, whether conventional or nuclear, is through deterrence. We must be prepared to wage war so effectively that no opponent could conclude, by any rational definition, that advantage could be gained by initiating a war, and especially a nuclear war. Thus, a sound forces modernization program, both conventional and nuclear, is necessary to a sound arms control policy. This is not because we want to build up, but because we know reductions will not be possible until the Soviet Union has an incentive to accept reductions.

While we very much appreciate and share the desire of the advocates of an immediate nuclear weapons freeze to reduce the risk of nuclear war, we do not believe that a simple freeze now at unequal levels would achieve this objective. In fact, quite the opposite result could be brought about. Freezing at the current unequal level decreases our deterrent capability; similarly, it would take away all incentive for the Soviet Union to negotiate seriously toward real arms control. Instead, we can expect a propaganda campaign designed to exploit differences of opinion with the Western democracies. That the Soviets will not negotiate if they believe they have the upper hand was demonstrated in the area of intermediate-range nuclear forces. Soviets initially refused our offers to negotiate, and only agreed to come to the negotiating table when it became clear that we and our Allies were determined to counter their continuing SS-20 missile buildup. That the Soviets will negotiate if we provide realistic incentives was illustrated by their willingness to negotiate anti-ballistic missiles (ABM) limitations once it became clear that the United States would proceed with ABM deployments.

An objective of the proposals to freeze forces at current levels is to pressure both American and Soviet leaders to reach meaningful reduction agreements rapidly. But the reality is that American leaders would be pressured not Soviet

Source: U.S. Department of Defense, August 1982.



leaders. The net effect then of passage of such a freeze proposal would be to put our leaders at an enormous disadvantage in negotiations with the Soviet Union. This in turn could reduce our ability to negotiate the most significant and useful arms limitations possible.

A freeze at current levels also could have consequences—again unintended but clearly negative—for the NATO Alliance. In 1979, in the face of continuing Soviet deployments, the members of the NATO Alliance agreed to begin deployment in 1983 of U.S. Pershing II and ground-launched cruise missiles (GLCM), and to seek a U.S.-USSR arms control agreement to reduce intermediate—range nuclear forces (INF). A freeze now would, in effect, be a unilateral decision by the United States to withdraw from this Alliance undertaking and cast serious doubt on American constancy and leadership. It would also undercut our negotiating position at the INF talks.

Finally, it is important also not to lose sight of the fact that military capability, including nuclear capabilty, has a significant political dimension. Soviet superpower status, for example, is a dividend derived from Soviet military strength, not Soviet economic strength or political attractiveness. The increased assertiveness of Soviet behavior affecting Afghanistan, Poland, and Central America is clearly an outgrowth of increased Soviet capabilities as well as confidence in those capabilities. A freeze which sanctioned Soviet advantages would have significant political and psychological effects as the world came to understand that the United States was willing to accept less than equality in the military realm.

The more direct defense implications of an immediate freeze on all testing, production, and deployment are:

First, a freeze at current levels would lock us into a perpetual state of military disadvantage vis-a-vis the Soviets. The Soviets surpass us in most commonly used static measures of strategic capability--total numbers of delivery vehicles, total numbers of ballistic missiles, and total destructive power. In the last decade, they have either taken over the lead or increased their existing lead in these areas. The United States still retains a lead in total numbers of strategic system warheads, largely due to decisions made a number of years ago to deploy a large number of small submarine-launched ballistic missiles (SLBM) warheads and bomber weapons. But, the Soviets may equal or surpass us in the total number of warheads during the 1980s and already have deployed a large number of the most threatening warheads--those are ballistic missiles.

The picture with respect to intermediate-range nuclear systems is much bleaker. The Soviets have a total monopoly in medium-range missile systems, since they have some 300 SS-20s, each with three warheads, as well as some 300 single warhead SS-4s and SS-5s. In contrast, the United States and NATO have no comparable capability. Moreover, the Soviets and their Allias possess a significant numerical advantage in aircraft capable of delivering nuclear weapons.



Second, a freeze would prevent us from achieving a more stable strategic deterrent in the future. More specifically, a freeze would deny us the ability to modernize and improve the survivability of our intercontinental ballistic missile (ICBM) forces. It would deny us the ability to modernize our aging bombers and the weapons they carry, while leaving intact and permitting improvement in Soviet air defenses which counter our bombers, and it would deny us the ability to modernize our SLBM forces to ensure the continued strength of our sea-based deterrent. Also, it would deny us the ability to improve the safety and security of our nuclear warheads—programs that have significant payoff in terms of reducing the risk of accidental or unauthorized nuclear detonations.

Finally, a total freeze on testing, production, and deployment raises verification concerns. It is true that national technical means of verification can monitor deployment of large weapons, such as ICBMs. But they would be inadequate for some aspects of research, development, and testing as well as production of some smaller weapons. Measures beyond national technical means would be required to monitor Soviet compliance with a comprehensive nuclear freeze on all testing, production, and deployment. Even then, compliance with certain types of limits, such as a freeze or ban on testing of warheads, most likely could not be fully verified. As we have learned, however, loosely drawn or unverifiable agreements with the Soviet Union, such as the treaties banning use of biological and chemical weapons, invite Soviet circumvention or violation. We simply cannot base our security on trust.

The Administration's proposal to ban certain land-based intermediate-range nuclear missiles, on which we are now negotiating with the Soviet Union, will require verification measures beyond national technical means. If the Soviet Union will agree to the ban and the verification measures, we will have established a precedent and a base of experience for attempting even broader limitations on nuclear weapons.

This Administration is committed to achieving significant reductions in nuclear arms. Contrary to what critics imply, we do not want to build up our nuclear weapons before we reduce them. Our offer to completely cancel our entire Pershing II missile and GLCM program if the Soviets will dismantle and destroy their comparable weapons (the SS-20, SS-4, and SS-5) illustrates this. Our strongly felt preference is to reduce the weapons arsenals on both sides. But we cannot achieve reductions in the nuclear arsenals of both sides that are equal and verifiable if we agree to freeze forces at their current unbalanced levels. It is a sad, but eminent fact of history that the Soviets will negotiate seriously toward equal force levels only if they are convinced that we have the will to protect our security with or without arms control.



The Fallacy of the Nuclear Freeze

By R. C. Richardson

he nuclear freeze debate supericially appears to pit those who would like to use nuclear weapons, in the event of war, against those who believe that any use of these weapons would be catastrophic and suicidal. As such proponents of a freeze consistently seek to cast the argument into whether one is for or against the use of nuclear weapons. This approach to evaluating the merits of a freeze entirely misses the real issue, which is that of U.S. National Security and how it can be assured in the real world of today.

Like mother love, the non-use of nuclear weapons is clearly desirable. All responsible people should be in favor of such a goal. So is the non-use of any weapons of war. Just because one or more items in the arsenals of the world are more lethal, effective in achieving destruction, or dangerous than others, does not make it practical to eliminate or reduce these and assume that the defense job can be accomplished just as well with what's left.

One thing is certain and that is that even if a freeze were to be implemented it could not be rationally done unilaterally. Any freeze proposal, therefore, must be considered in the context of its impact on our relative ability to defend America and its allies, with or without it, at any given time as well as its impact on the capabilities and military aggression prospects of others.

A nuclear freeze as a separate kneejerk disarmament initiative makes no sense. The proposed action is out of context with the overall defense problem. It presumes one can lift one element of defense out of the entire interlocking and interdependent structure and deal with it, regardless of practical military considerations. The proponents of the freeze do not explain what they suggest be done to substitute for the resulting loss of U.S. defense capability vis-a-vis the Soviets. They do

not tell us how U.S. and allied defense plans would be implemented successfully under a freeze. And, they appear to have no idea, or concern with, what its impact would be on U.S. national security now or in the long term. That I assume they consider to be somebody else's problem which in their mind is secondary to satisfying their own emotional fear of nuclear weaponry, whether valid or not.

Proponents of a freeze also seem to assume that the Soviets will agree to it, and eagerly adhere to its terms. Possibly they might agree if, as is the case, the timing of the freeze leaves them in a superior military position which otherwise would be threatened by U.S. defense programs underway. But, to either trust them to adhere to it, if and when it was not in their selfish interest to do so, or without unequivical verification measures would be the height of folly, as historical experience has well established. The prospects of acceptable types of verification for a freeze agreed to by the USSR range from zero to negligible. National technical means could never be relied upon for this and on site inspections, in the depth and detail required to provide even reasonable assurance of compliance, would be clearly unacceptable to the Soviets. Yet, the proponents seem to think this is no problem. If, as alleged, the Soviets are eager for such a freeze why do they not take the initiative here along with proposing acceptable verification measures? It makes no sense for the sheep to become vegetarians when the wolf won't go

The truth of the matter is that nuclear weapons over the years have become the lifeblood of the military capability of major nations and in the defense of many areas. Unlike chemical weapons that are merely potential additions to combat capabilities and can be used or not without any great impact on other elements of the de-

fense establishment, the cost effectiveness, firepower requirements, design, delivery capabilities and military worth of a large segment of our major military hardware is it separably entwined with nuclear devices. ICBMs, missile submarines. modern bombers, and many tactical capabilities are either mated to or were built for use with nuclear systems. To tamper with adjustments in the requirements for these would in the long run create massive waste. chaos, and military weakness. Certainly these could in due course be replaced with non-nuclear capabilities, but this would take a decade or more. The average time to design and field a new weapon system capability is now thirteen years.

There are many other detailed argiments against a freeze at this time including its likely impact on the U.S. ability to negotiate any valid arms limitation or reduction agreements. I do not propose to repeat these but only to emphasize that no government can survive if it does not have the flexibility to weigh and interrelate all national considerations in deciding what to do. To freeze nuclear weapons arbitrarily, today, would be akin to cutting off a piano player's finger while expecting him to play as usual in the symphony or figure out some way to do this. It makes no sense as a proposal out of context with the overall national security and world environment situation. When and if the proponents can responsibly provide acceptable solutions to all the implications, and likely changes in free world security a freeze would bring about, then I. and presumably all responsible military and elected officials, will give serious consideration to their total package proposals. Until and unless the freeze movement can do this it is doing the country a disservice, and the Soviets are no doubt laughing all the way to the bank!

Source: Ploughshares Fund, San Francisco, CA. Reprinted by permission.



COMMON SENSE and THE COMMON DANGER

A Policy Statement by The Committee on The Present Danger . . .

Citizens devoted to the Peace, Security and Liberty of the Nation

The principal threat to our nation, to world peace, and to the cause of human freedom is the Soviet drive for dominance based upon an unparalleled military buildup.

The Soviet Union has not altered its long-held goal of a world dominated from a single center—Moscow. It continues, with notable persistence, to take advantage of every opportunity to expand its political and military influence throughout the world: in Europe; in the Middle East and Africa; in Asia; even in Latin America; in all the seas.

The scope and sophistication of the Soviet campaign have been increased in recent years, and its tempo quickened. It encourages every divisive tendency within and among the developed states and between the developed and the underdeveloped world. Simultaneously, the Soviet Union has been acquiring a network of positions including naval and air bases in the Southern Hemisphere which support its drive for dominance in the Middle East, the Indian Ocean, Africa, and the South Atlantic.

For more than a decade, the Soviet Union has been enlarging and improving both its strategic and its conventional military forces far more rapidly than the United States and its allies. Soviet military power and its rate of

growth cannot be explained or justified by considerations of self-defense. The Soviet Union is consciously seeking what its spokesmen call "visible preponderance" for the Soviet sphere. Such preponderance, they explain, will permit the Soviet Union "to transform the conditions of world politics" and determine the direction of its development.

The process of Soviet expansion and the worldwide deployment of its military power threaten our interest in the political independence of our friends and allies, their and our fair access to raw materials, the freedom of the seas, and in avoiding a preponderance of adversary power.

These interests can be threatened not only by direct attack, but also by envelopment and indirect aggression. The defense of the Middle East, for example, is vital to the defense of Western Europe and Japan. In the Middle East the Soviet Union opposes those just settlements between Israel and its Arab neighbors which are critical to the future of the area. Similarly, we and much of the rest of the world are threatened by renewed coercion through a second round of Sovietencouraged oil embargoes.

Source: Committee for the Present Danger. Reprinted by permission.



Soviet expansionism threatens to destroy the world balance of forces on which the survival of freedom depends. If we see the world as it is, and restore our will, our strength and our self-confidence, we shall find resources and friends enough to counter that threat. There is a crucial moral difference between the two superpowers in their character and objectives. The United States—imperfect as it is—is essential to the hopes of those countries which desire to develop their societies in their own ways, free of coercion.

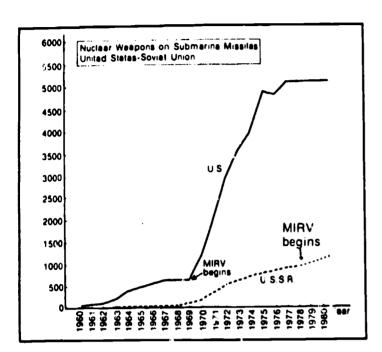
To sustain an effective foreign policy, economic strength, military strength, and a commitment to leadership are essential. We must restore an allieu defense posture capable of deterrence at each significant level and in those theaters vital to our interests. The goal of our strategic forces should be to prevent the use of, or the credible threat to use, strategic weapons in world politics; that of our conventional forces, to prevent other forms of aggression directed against our interests. Without a stable balance of forces

in the world and policies of collective defense based upon it, no other objective of our foreign policy is attainable.

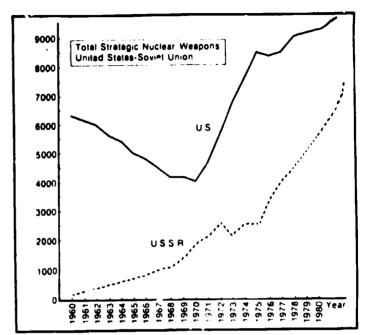
As a percentage of Gross National Product, U.S. defense spending is lower than at any time in twenty-five years. For the United States to be free, secure and influential, higher levels of spending are now required for our ready land, sea, and air forces, our strategic deterrent, and, above all, the continuing modernization of those forces through research and development. The increased level of spending required is well within our means so long as we insist on all feasible efficiency in our defense spending. We must also expect our allies to bear their fair share of the burden of defense.

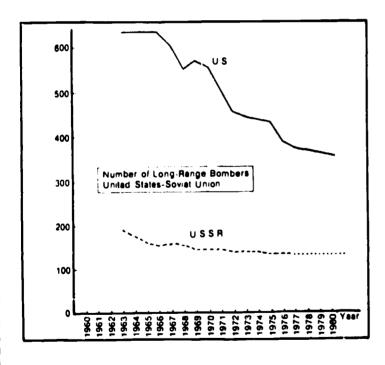
From a strong foundation, we can pursue a positive and confident diplomacy, addressed to the full array of our economic, political and social interests in world politics. It is only on this basis that we can expect successfully to negotiate hardheaued and verifiable agreements to control and reduce armaments.

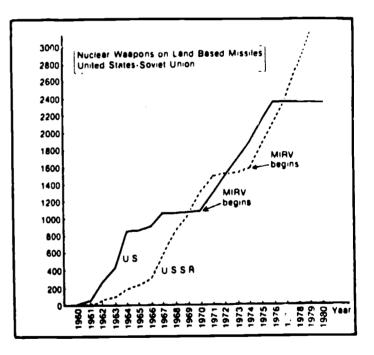
Measures of the Nuclear Arms Race



Measures of the Nuclear Arms Race



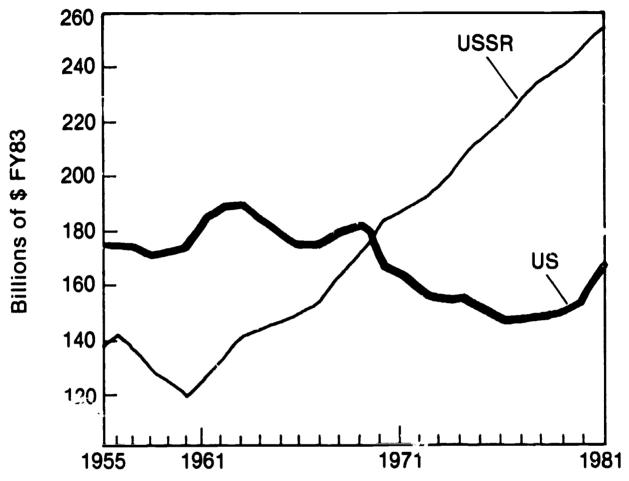




Source: Ground Zero. Reprinted by permission.



Comparison of US Defense Outlays with Estimated Dollar Cost of Soviet Defense Activities



Notes: U.S. defense outlays include national security programs funded by DOD and defense related outlays of Department of Energy, Coast Guard, and Selective Service and their Soviet counterparts.

Excludes retirement, foreign military sales and civil defense.

Source: Adapted from Secretary of Defense, Annual Report, FY 1983, p. 1-5.

"A decisive shift in the correlation of forces will be such that come 1985, we will be able to exert our will wherever we need to"

-Soviet President Leonid Brezhnev in Prague, 1973

Source: U.S. Department of Defense.





the Center for Delense information supports a strong defense but opposes exceive expenditures or forces. It believes that strong social, economic and political tructures contribute equally to national security and are essential to the strength end unified of our country.

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U.S.-SOVIET MILITARY FACTS

Defense Monitor in Brief

This issue of *The Defense Monitor* is a collection of the important facts regarding the relative military power of the United States and the Soviet Union and their allies. It is being provided by the Center for Defense Information at the request of many of our readers, and is intended as a handy reference for persons needing an up-to-date assessment of the many elements of U.S. and Soviet military strengths and weaknesses.



Total Nuclear Weapons

- The United States can explode over 12,000 nuclear weapons on the Soviet Union; the Soviets can explode almost 8,000 nuclear weapons on the United States.
- Of the over 12,000 U.S. nuclear weapons capable of striking the Soviet Union, over 2,600 are on F-111's, F-4's, A-6's, A-7's and other "tactical" aircraft which could fly to the Soviet Union from Europe, Asia, or from aircraft carriers; over 9,500 are "strategic" nuclear weapons.
 - Of the Soviets' 8,000, almost 150

are on Backfire bombers which can only hit the U.S. if they fly at airliner speeds, on one-way missions. The remaining 7,800 are "strategic" nuclear weapons.

- Of the more than 9,500 U.S. "strategic" nuclear weapons, half are on submarines which are invulnerable, hidden beneath the ocean. Four hundred more strategic weapons will be added in 1982, bringing the total to over 9,900 U.S. strategic nuclear weapons.
- In addition to strategic nuclear weapons capable of hitting each other's homelands, both the U.S. and the U.S.S.R. have thousands of "tac-

tical" nuclear weapons for use against ship convoys, tank formations, and other targets. As a general estimate, the U.S. and its allies have a total of about 31,000 nuclear weapons and the Soviets have about 20,000. (About 26,000 U.S. nuclear weapons are in the active inventory and 4,000 more in inactive storage.)

• Soviet strategic nuclear weapons carry about 8,000 megatons of explosive power compared to 4,000 for the U.S. As the Soviets begin to catchup with the U.S. in producing smaller, more accurate and efficient weapons, they, too, are reducing their megatonnage.

Defense Secretary and Chairman of Joint Chiefs Would Not Trade Forces

Senator Carl Levin: "I am wondering whether or not you would swap U.S. military capability overall, with everything that is included in that phrase, for that of the Sovieta?"

General John Vessey: ". I would take some of the things that the Soviets have for their forces in terms of numbers and give them to our forces, but overall would you trade with Marshal Ogarkov (Chief of Staff of Soviet Armed Forces)? Not on your

life, not to live there or have his job or his responsibilities or to have his forces in comparison to ours."

Senator Levin: "I appreciate your answer Just focusing on the military capibility aspect is your answer that you would not trade?

General Vessey: "I we uld not trade."

Senate Arme 1 Services Committee May 11, 1982 Senator Charles Percy: "Would you rather have at your disposal the U.S. nuclear arsenal or the Soviet nuclear arsenal?"

Defense Secretary Weinberger:
"... I would not for a moment exchange anything, because we have an
immense edge in technology."

Senate Foreign Relations Committee April 29 1982

Source: Center for Detense Information. Reprinted by permission.

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- The number of Soviet intercontinental ballistic missiles (ICBMs) is declining. They have 1,398 now whereas seven years ago they had 1,600.
- The Soviets have larger missiles, with greater throw weight than U.S. missiles.
- US weapons are smaller because they have miniaturized, computerized guidance packages, more efficient acket engines, thinner but more effective heat shields, greater accuracy, and more compact, efficient hydrogen weapons.
- Ninety-five percent of Soviet missiles are old-fashioned, liquidpropelled ICBMs; they carry large nuclear weapons to compensate for inaccuracy.
- Soviet ICBMs are less reliable and less accurate than U.S. ICBMs.
- The Soviets are shifting gradually to more modern ICBMs, with smaller yield warheads—following the U.S.'s lead.
- The U.S. has maintained a level of 1,054 ICBMs but has modernized the missiles by introducing new types from Minuteman (MM) I to MM II to MM III and added 1,100 weapons by MIRVing the Minuteman III.
- The U.S. has completed hardening of Minuteman silos and installation of an improved guidance system which doubles accuracy.
- The U.S. has MIRVed 550 of its 1,000 MM ICBMs and will soon complete retrofitting 300 of these (900 nuclear weapons) with the MK12A warhead, doubling each weapon's explosive power and increasing lethality.
- The U.S. will soon replace 50 MM IIs with MIRVed MM IIIs, adding a net increase of 100 highly accurate weapons to the total ICBM force
- U.S. solid fuel-propelled MM ICBMs can be launched against the Soviet Union well within the 30 minute time of flight of Soviet missiles. Therefore, Soviet ICBMs launched against U.S. ICBMs might find only empty holes on arrival in the U.S. U.S. ICBMs constantly maintain a 98% alert rate. It is believed that the alert rate of Soviet ICBMs is much lower
- It will soon be possible to launch U.S. ICBMs by airborne command posts should ground command centers be destroyed.



- The Soviet strategic bomber force of 145 planes still includes 100 old, slow, propeller aircraft.
- All 376 operational U.S. strategic bombers are modern high speed jet aircraft. The U.S. also has over 40 long-range bombers in active reserve, and over 200 in storage.
- Over 100 U.S. bombers would be airborne prior to Soviet missile attack against the U.S.
- In addition to strategic bombers, the U.S. has over 400 strike aircraft which are equipped with nuclear weapons aboard its aircraft carriers.
- The U.S. will add 4,350 nuclear-tipped air-launched cruise missiles over the next several years to enhance the capability of its strategic bomber force.
- One of the greatest advantages the U.S. has over the Soviet Union is its air refueling capability. The U.S. has over 600 KC-135 tankers to extend the ranges of its long-range bombers and other aircraft. The Soviets have 30 long-range tankers.
- The U.S. will soon add to its strategic mobility and air refueling capacity by buying new KC-10 tankers and re-engining 300 KC-135s.



Strategic Submarines

- The 62 Soviet ballistic missile submarines carry 950 nuclear missiles (almost 2,000 nuclear weapons) for war against the U.S., Western Europe and China.
- The Soviets maintain day and night about 300 nuclear weapons at sea targeted against the U.S.
- The Soviets maintain a much smaller percentage of their strategic subs at sea than the U.S.
- The U.S. maintains at least 55 percent of its 32 ballistic missile subs at sea at all times (18-20 subs). This will soon be increased.
- The U.S. keeps 3,000 nuclear weapons in position to attack targets in the Soviet Union at all times.
- U.S. subs could wage a protracted nuclear attack on Russia for over 3 months.

Soviets Have Nothing Like Superiority

"The Soviets do not have, in my judgement, anything like strategic superiority in the sense of a militarily or politically usable advantage in strategic nuclear forces."

Former Defense Secretary Harold Brown April 30, 1982



ECONOMIC BENEFITS OF THE

Over the next 6 years, the United States plans to spend at least \$261 billion on a new round of the nuclear arms race.1

Negotiation of an immediate nuclear weapons freeze with the Soviet Union would hait most of this buildup. A freeze on testing, production and deployment of nuclear weapons and delivery vehicles—missiles and bombers—would directly affect weapon programs budgeted at \$84 billion over the next 5 years. In the first year, budget outlays would be reduced by about \$6 billion, and savings would mount rapidly after that.2

Aithough not required by the precise language of the freeze, much of the additional money planned to be spent—for new communications systems, for ballistic missile defense, and for new bomber defenses—would be unnecessary and could be reduced.

The total savings from a freeze over the next decade would be well over \$200 billion.

THESE WEAPONS SYSTEMS WOULD BE **DIRECTLY HALTED BY A FREEZE:** Five Year Savings **System** (billions) \$23.9 MX Missile \$27.2 B-1 Bomber THESE PROGRAMS COULD BE REDUCED OR ENDED ONCE A FREEZE TAKES EFFECT: Trident | Missile \$ 2.5 Potential Savings System \$ 5.2 Air-Launched Cruise Missile Trident II Missile \$21.5 billion* (through mid-1990's) \$ 2.4 Ground-Launched Cruise Missile \$10-\$25 billion ** \$ 0.8 **Ballistic Missile** Sea-Launched Cruise Missile Defense (through mid-1990's) Pershing II Missile \$ 1.1 Stealth Bomber (through 1991) **Nuclear Warhead Production** \$11.5 \$2.5 billion*** Strategic Air Defense Nuclear Warhead Development and \$ 3.6 Testing \$7 billion*** Command, Control & Communications **Nuclear Materials Production \$** 6.0 Trident Submarine \$11.75 billion****

Produced by SANE and the Coalition for a New Foreign and Military Policy for the Nuclear Weapons Freeze Campaign National Clearinghouse 41441 indell Blvd . 2nd floor. St. Louis. MO 63108. Special thanks to the Mid Peninsula Conversion Project and the Council on Economic Priorities. Additional copies of this leaflet may be ordered for 10¢ each. 5¢ plus 20% postage/20 100, \$18/500 from

\$84.2

Sane, and the Coalition for a New Foreign and Military Policy, Washington, D.C. Reprinted by permission.



TOTAL

(through 1987)

WHAT THE SAVINGS MEAN

JOBS:

Military snanding creates far fewer jobs than almost any other kind of public or private spending:

Jobs Per Billion Dollars (in 1980 \$)3













A reduction of military spending, accompanied by an increase in other areas, will help the economy as a whole, even though some workers and communities depend on military contracts and will be hurt. Those affected by the military cuts should be protected by joint government/labor/industry planning to convert from military to non-military production.

SOCIAL PROGRAMS:

For Fiscal Years 1982 and 1983, Congress has made over \$50 billion worth of cuts in social programs, and further deep cuts are planned in years ahead. The savings achieved by a nuclear freeze could be used to prevent the most damaging of these cuts. The \$6 billion in FY 1983 outlay savings could be applied to the following recently passed reductions in the domestic budget:

Program	FY 1963 Cut
Medicaid	\$680 million
Child Nutrition	\$280 million
Food Program for Women.	
Infants and Children	\$ 70 million
Legal Services	\$ 70 million
Supplemental Security	
Income	\$430 million
Elementary and Secondary	
Education	\$350 million
Guaranteed Student Loans	\$660 million
Pell Grants	\$120 million
Energy and Conservation	
Research and Development	\$360 million
Community Development Grants	#510 million
Mass Transit	\$500 million
Economic Development	. ==
Administration	\$ 70 million
Food Stamps	\$920 million
Aid to Families with	
Dependent Children	1950 million
TOTAL	15.97 billion

ALTERNATIVE RESEARCH EFFORTS:

The nationwide shortage of high school math and science teachers is just one sign of our nation's desperate shortage of resources for civilian research and development activities. Despite the need to put more and more effort into developing new areas of technology to compete in the international marketplace and to improve productivity, 60% of federal research funding goes to the military, 30% of all our nation's R&D activity.4

Government Spanding for Research and Development, 1970-80 5 (Billion dellark)

Military	Civilian	Spece
117	79	36

The scientists and engineers now doing research on exotic new nuclear delivery vehicles could easily be put to work on efforts to develop alternative sources of energy, or energy conservation or on scores of other important new technologies.







The \$261 billion figure includes the \$222 billion cost of the Reagan Administration's strategic weapon's modernization program and \$39 billion for Energy Department miclear warhead programs.

* (Impublished data obtained from U.S. Congressional Budget Office. April 1982: The \$84.2 billion's year total reflects budget authority...most of this will be spent in outlays during the 5-year period. Fire details a backup paper is available from the Coation or SANE (see addresses below).

* Dound Grote et al. Misquided Expenditures: An Analysis of the Proposed MX Missile Bystom (New York: Council on Economic Princiles: 1981): p. 157. Based on Bureau of Labor Statistics data.

* National Science Binged. Belence Indicators (Washington: National Science Foundation: 1979): cited in Robert Deciration.

Priorities (982) p. 21 Ruth Leger Sward: World Military and Social Espenditures, 1981 (Washington: World Priorities, Inc., 1981) p. 17

63.5% 36.5%

56.5% 43.5%

534,

47.7

Nuclear Freeze Referenda Win Almost Everywhere!

Voters in nine states, the District of Columbia, and 34 cities and counties want Washington to propose to the Soviet Union an immediate, mutual and verifiable freeze on the nuclear arms race.

NO

YES

North Branford, CONNECTICUT Norwalk, CONNECTICUT

Mesa Co., COLORADO

California	52.5%	47.5 %
D.C.	70%	30%
Massachusetts	74%	26%
Michigan	57 %	43%
Montana	57%	43%
New Jersey	66%	34%
North Dakota	58%	42%
Oregon	61.5%	38.5%
Rhode Island	59%	41%
Wisconsin	75%	25%
COUNTIES WON	YES	NO
Independence Co., ARKANSAS	53%	47%
Izard Co., ARKANSAS	52%	48%
Pitkin Co., COLORADO	7518	25%
Dade Co., FLORIDA	58%	42%
Cook Co., ILLINOIS	66%	34%
Chicago	75%	25%
Washoe Co., NEVADA	60%	40%
Suffolk Co., NEW YORK	6917	31%
Butler Co., PENNSYLVANIA	54%	46%
Erie Co., PENNSYLVANIA	6518	3514
Philadelphia Co., PENNSYLVANIA	75.5%	
Okanagan Co., WASHINGTON	65%	35%
Thurston Co., WASHINGTON	64'%	364
CITIES WON	YES	NC
Anchorage, ALASKA	53%	47'*
Juneau, ALASKA	58%	42%
Denver, COLORADO	62%	38%
Golden, COLORADO	62%	38%
Longmont, COLORADO	541%	469
Hamden, CONNECTICUT	68%	329
Manchester, CONNECTICUT	731	273
Meriden, CONNECTICUT	70%	30%
New Haven, CONNECTICUT	72.76	28'%

NOTWARK, COMMENTED TO COL	JO. J - 0	77.70
Southbury, CONNECTICUT	62%	38%
Torrington, CONNECTICUT	58%	42%
Wethersfield, CONNECTICUT	5218	48%
Winnetka, ILLINOIS	58%	42%
Albert Lea, MINNESOTA	60%	40%
Bemidji, MINNESOTA	86 %	34%
Columbia, MISSOURI	59%	41%
Springfield, MISSOURI	52%	48%
Kearney, NEBRASKA	50.4体	49.6%
Brattleboro, VERMONT	83%	17%
Medina, WASHINGTON	55%	45%
STATE LOST	YES	NO
Arizona	41%	59%
COUNTIES LOST	YES	NO
North Star Borough		
(Fairbanks) ALASKA	46%	54%
Stone Co., ARKANSAS	40%	60 %

TOTAL REFERENDA RESULTE YES NO					
	States	58.5%	41.5%		
	Counties Cities	68% 61%	32% 39%		
	TOTAL	60%	40%		

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1

STATES WON

WILLIAM L. ARMSTRONG

United States Senate

WASHINGTON, D.C. 20510

December 28, 1982

Miss Carolyn Horwitz 9853 East Ida Avenue Englewood, Colorado 80111

Dear Carolyn:

Thank you for your letter. I know how strongly you feel and I share your concern.

I share your concern about the arms race and dread the consequences of failure in our efforts to achieve a permanent reduction, and ultimate elimination, of nuclear weapons. So the basic concept of the freeze resolution is very appealing.

At the same time, however, I am concerned that adoption of the resolution by the Senate might divert attention from more specific and effective proposals, a concern discussed in the enclosed article by former Defense Secretary Harold Brown. I also recognize that a unilateral freeze might have a completely perverse effect by eliminating incentives for the U.S.S.R. to freeze or cutback on their own arms buildup or enter into serious negotiations.

The U.S. has had a defacto nuclear freeze for a decade. We have deployed no new strategic weapons since the early 1970's. The Soviet Union has raced ahead. Under these circumstances, and recalling that the U.S.S.R. has never entered into an arms limitation agreement in which they gave up something for nothing, I cannot help worrying about the danger if we have nothing left to trade the Soviets for a nuclear arms reduction on their side.

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Miss Carolyn Horwitz Page 2 December 28, 1982

Verifiability of any agreements reached may also be a problem. We are presently unsure of our ability to detect Soviet cheating and the Soviet record of such cheating on treaties banning chemical and biological weapons should make us wary of the prospects for voluntary compliance by the U.S.S.R.

These concerns are very real and significant; they are so serious that some may conclude that realistic arms control, reduction of world tensions and war threats are impossible dreams. I do not believe this to be true. Although I wish to be fully realistic about the great difficulties, I regard the seriousness of the problems as the measure of the importance of the task ahead.

It was good hearing from you and I hope you keep in touch.

Best regards,

WLA/dw Enclosure Use this form for taking notes and preparing for the nuclear freeze debate.

Document title and author (if given)	Document #	is document profreeze, antifreeze or neutral?	Use this space for writing notes that are important from the document.

165

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116

PÖSITION SLIPS

PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE
PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE
PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE
PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE
PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE	PROFREEZE
JUDGE	JUDGE	JUDGE		
ANTIFREEZE	ANTIFREEZE	ANTIFREEZE	ANTIFREEZE	ANTIFREEZE
ANT IF REEZE	ANTIFREEZE	ANTIFREEZE	ANTIFREEZE	ANT IF REEZE
ANTIFREEZE	ANTIFREEZE	ANTIFREEZE	ANT IF REEZE	ANTIFREEZE
ANTIFREEZE	ANT IF REEZE	ANTIFREEZE	ANTIFREEZE	ANTIFREEZE
ANTIFREEZE	ANT IFREEZE	ANTIFREEZE	ANTIFREEZE	AN1 IF REEZE

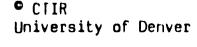


JUDGES INSTRUCTIONS

As judges, you have a very great responsibility in this debate. Both sides are counting on you being knowledgeable and good listeners. You will have to sort out the information that is presented to you, ask clarifying questions and finally decide which side "wins." Please keep one major rule in mind: NO MATTER WHAT YOUR PERSONAL OPINION IS, YOU MAY ONLY DECIDE THIS DEBATE ON THE INFORMATION PRESENTED TO YOU. THE CASE THAT IS BEST PRESENTED WINS.

The following suggestions should help you in your role as judges:

- 1. You must know both sides of the issue. Read documents carefully, take notes and prepare questions to ask both sides.
- 2. Think about the key issues that each side needs to raise.
- 3. When conducting the debate:
 - a. Insist on quiet when people are speaking.
 - b. Insist that speakers always identify the source of any information presented. Ignore information if they don't.
 - c. Be fair--get a response from one side, then the next, and so on.
 - d. Give all a chance to participate. Don't call on the same people all the time. Don't let people monopolize the discussion.
 - e. A majority vote decides this issues 2-1 or 3-0.
 - f. Your agenda will be:
 - 1. Profreeze spokesperson
 - 2. Antifreeze spokesperson
 - Profreeze witnesses (three)
 - 4. Antifreeze witnesses (three)
 - 5. Open debate and questions from judges
 - 6. Recess to make decision
 - 7. Announce decision
 - 8. Discuss reasons for decision





NUCLEAR FREEZE DEBATE GROUP TASK SHEET

When your group gets together, select a spokesperson who will act as the coordinator of your team. The task of this person is to present a 45-60 second overview of your position on the Nuclear Freeze Resolution. The three witnesses should each present a 60-90 second documented speech on one issue that supports your side. All group members should help organize the presentations of these four people. During open debate, all must be prepared to defend and argue their position.

1.	Our	group is pro/antinuclear freeze (circle one).						
2.	Gro	up Spokesperson						
3.	. Primary Group Witnesses:							
	Α.	speaking on						
	в.	speaking on						
	с.	speaking on						
4.	We	expect to have to respond to these key arguments:						
	С.							
	D.							
	Ε.							
	F.							



PROJECT OPTIONS

- Option #1: Write a letter to the President, your Senator or Representative.
 - A. It must be neat and approximately two full pages. Spell and write carefully.
 - B. Explain your opinions on nuclear weapons and nuclear war.
 - C. Use terms and information from class to show you are informed.
 - D. End with a request that they respond and send information to you.
 - E. Address an envelope and provide a stamp.
- Option #2: Design a poster expressing your opinions on nuclear war and weapons.
 - A. Clearly express some idea and illustrate it.
 - B. Think of some sort of theme to communicate.
 - C. It must be clear and in color.
- Option #3: Write and illustrate a poem related to our study of nuclear war.
 - A. Express your feelings--show your knowledge and understanding.
 - B. All poems don't have to rhyme, but they should have a "flow" to them (meter).
 - C. Print neatly and illustrate creatively.
- Option #4: Write and send a letter to the Editor of your local newspaper.
 - A. Clearly express your opionions on nuclear war and weapons.
 - B. Make some sort of suggestion(s).
 - C. Write neatly and carefully with proper grammar.
 - D. Look up the address of the newspaper, address an envelope and provide a stamp.
- Option #5: Draw an editorial cartoon showing your opinions on nuclear war.
 - A. Look at editorial cartoons to see how these are drawn.
 - B. Pick an idea and show it clearly in cartoon format.
 - C. Illustrate carefully using correct information.



A START...AT STOPPING NUCLEAR WAR...TODAY

My favorite activity is inventing. An early arms control proposal dealt with the problem of distancing that the President would have in the circumstances of facing a decision about nuclear war. There is a young man, probably a Navy officer, who accompanies the President. This young man has a black attache case which contains the codes that are needed to fire nuclear weapons. I could see the President at a staff meeting considering nuclear war as an abstract question. He might conclude: "On SIOP Plan One, the decision is affirmative. Communicate the Alpha line XYZ." Such jargon holds what is involved at a distance.

My suggestion was quite simple: Put that needed code number in a little capsule, and then implant that capsule right next to the heart of a volunteer. The volunteer would carry with him a big, heavy butcher knife as he accompanied the President. If ever the President wanted to fire nuclear weapons, the only way he could do so would be for him first, with his own hands, to kill one human being. The President says, "George, I'm sorry but tens of millions must die." He has to look at someone and realize what death is—what an innocent death is. Blood on the White House carpet. It's reality brought home.

When I suggested this to friends in the Mentagon they said, "My God, that's terrible. Having to kill someone would distort the President's judgment. He might never push the button."

Roger Fisher . Bulletin of the Atomic Scientists

WHAT IS YOUR IDEA FOR MAKING NUCLEAR WAR HARDER TO START:



Developed (with borrowed excerpts) by John Zola, 1981 Roger Fisher excerpt reprinted by his permission.



INVENT A BETTER GAME FOR SOLVING PROBLEMS:	Another problem about resist war is that, unfortunately, war is still for some the most thrilling, challenging game in the world, where nations can play out a drama that involves life and death, starting convincing good guys and bad guys, with opportunities for the matchless thrill of pushing people to their limits in a context where success really matters, where hundreds or thousands or millions of lives depend on you, where something called Freedom seems to depend on you. Will we invent a better game?
	स्टि
"If I knew there was going to be a nuclear war tomorrow, I'd plant on apple tree today." WHAT WOULD YOU DO TODAY?:	1



HOW TO PREVENT NUCLEAR WAR: SOME SUGGESTIONS
 Be good to yourself. Forgive yourself your trespesses. Be good to your children, your neighbors, your friends, your er les, and your politicisms. Pursue senity and compassion. Learn to be peaceful. Give up blaming.
5. Bear witness, especially in your own community. You don't need to understand the global political situation or the details of the arms race unless that is your profession or your calling. Most of us will need to stay local. Get to know your local bomb, your local soldier, your local general, your local ammaments manufacturer. Get to know the bomb in your own heart. Find a Ruseian and get to know her or him. 6. Liberate women.
 Liberate women. Study the art/science of conflict resolution; practice and improve it. Join the peace movement, or the army, or the foreign service, or get yourself elected President or Senator or school board member, and be peaceful there. Or go to Russia and be peaceful there. For one minute a day, or whatever you can manage; it isn't easy.
10



WHY DO WE DO IT?

The last paradox I want to talk about is why is it that those of us who have confronted the gory details of possible nuclear war and the abstract institutional horrors which perpetuate the threat of it, don't simply "eat, drink, and be merry, for tomorrow we die?" How is it that our finally losing hope creates new hope--or at least a quality of will? Why do we so often keep on choosing to work on the issue? This question is satisfying to contemplate, because it remainds me that we must after all live out our lives. And yet fear of losing our lives is no longer a primary motive. We have lived, in our imaginations, through the holocaust. Or died, but There is no need to it's done. hide-and of course no place to hide. We are alive, we are awake, and this is the work we find before us.

WHAT DO YOU WANT TO LIVE FOR				
				
	 •			

"Seventy-five percent of the American people, by poll, and in favor of strategic arms limitation. I wonder why we don't hear from them? We near from the 10% who are aligned with the industrial/military complex. Where's the voice of the other 75% of the American people? If TAKES A STAMP AND THREE MINUTES TIME TO LET YOUR VOICE BE HEARD.

Paul Newman, Actor.

U.S. Delegate, UN Special Session on Disammement Speaking on "Good Morning America" TV Show



LET SOMEONE OFFICIAL KNOW YOUR OPINIONS!!!



FUTURE STUDIES UNIT



Title: THE AFTERMATH

Objectives:

To envision a postnuclear holocaust world. To identify the world-wide effects of a nuclear war.

Grade Level: 7-12

fime: Two class periods

Materials: None

Procedures:

- 1. Have students review the activities entitled "Parallel Timelines" and "The Day the Bomb Fell."
- 2. Discuss the various effects of a nuclear blast, i.e., radiation, climatic change, etc. Ask students to visualize what the earth would be like after a nuclear attack. (Draw pictures, list adjectives, etc.)
- 3. As a homework assignment, have students write a one to two page essay imagining a postnuclear life. Students are to begin their essay with the phrase "The day I emerged from my fallout shelter, three months after World War III . . ."

DAY IWO

4. Ask students to share their essays with the class. Discuss the various visions" of life in a postnuclear war.

What jobs would be most important?

What types of food would people eat?

What would people use for transportation, communication, etc.?

Would you still be in a school?

What would your daily life be like?



Title: PERSONAL TIMELINE

Objectives:

To predict and imagine the future.
To personalize the future and the possibility of nuclear war.
To compare personal futures with the future of the world.

Grade Level: 7-12

Time: One class period

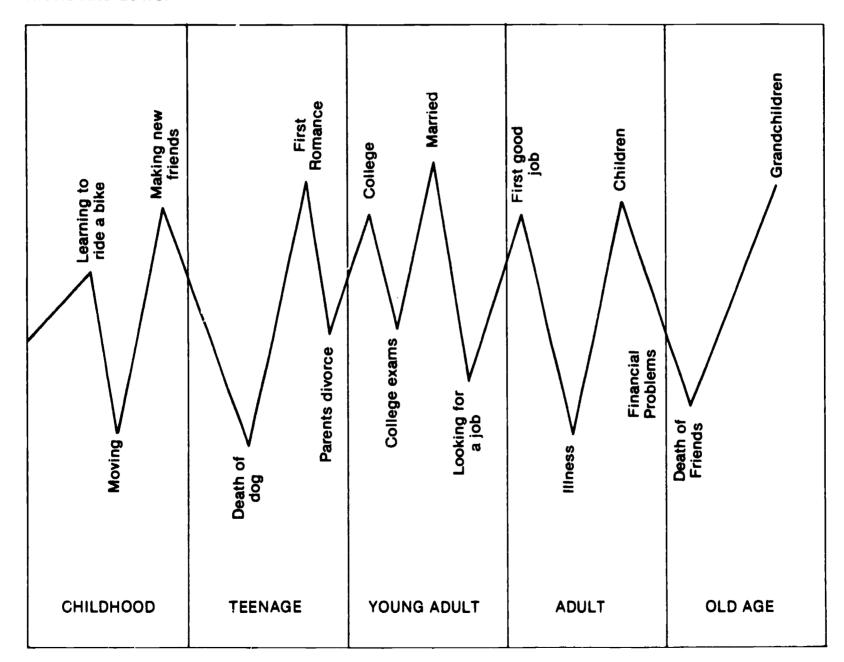
Materials: Handout #37, "Personal Timeline"

Procedures:

- 1. Distribute Handout #37 and explain to students that they are to think about their past, present and future. They may label high and low points in their lives so far and predict events in their future (See example.) You may want to do a timeline of your own life to encourage students to express themselves.
- Discuss the terms "optimistic" and "pessimistic". Have students share their own views on their future and decide if they are optimists or pessimists.
- 3. After students have completed their timelines, have a class discussion. How many of you forsee a nuclear war in your future?
- 4. Refer back to the timelines discussed in the activity "Parallel Timelines." How do the Nuclear Arms Race Timeline and the World Timeline compare with your Personal Timelines? Discuss events on the World Timeline that directly affect students' Personal Timelines.



USE THE SPACES BELOW TO "DRAW" THE PATTERN OF YOUR OWN FUTURE AS YOU SEE IT. LABEL THE HIGHS AND LOWS.



Title: CHANGES

Objectives:

To recognize the effects of rapid change. To encourage prediction skills.

Grade Level: 7-12

Time: Two class periods

Materials: Handout #38, "Changes--Coming Faster and Faster

Handout #39, "Changes -- Survey"

Poster paper

Markers

Procedures:

- 1. Ask students how many new books they think are being printed daily (1000). Explain to students that inventions and discoveries have caused many changes in the way people live. More inventions have occured in the last 100 years than the previous 50,000 years of human history!
- 2. Distribute Handout #38 and ask students to complete the form.
- 3. After students are through, discuss their answers. Have them recognize that the majority of the changes have occurred in the last forty years. Discuss which inventions students believe have changed their lives the most. Which ones did you never dream of? How might adults answer these questions? Have students brainstorm ideas.
- 4. As a homework assignment, distribute Handout #39 and ask students to survey ten students and ten adults.

DAY 2

- 5. On poster paper, list information gathered by the surveys and compare with ideas brainstormed previously. How do the answers of the adults differ from the students? What inventions changed the lives of the adults? Of the students?
- 6. Discuss where students and adults included nuclear weapons on the survey.



© CTIR University of Denver Title: HELP WANTED

Objectives:

To speculate on jobs and skills that may be needed in the future.

To analyze changes in society and their affect on jobs.

To encourage creative thinking.

To encourage productive and positive future thinking.

Grade Level: 7-12

Time: Two class periods

Materials

Handout #40, "The World of Work"

Daily newspaper--the "help wanted" section

Handout #41. "Help Wanted"

Procedures:

1. Ask students to define the term "obsolete" and create a list of jobs that are now obsolete. Write answers on the board.

2. Ask students if they ever thought of being a: Cooper

Blacksmith
Wagon Scout
Harpooner
Iceman
Tinker
Court Jester
Scribe

Have students explain why these jobs are obsolete. Discuss changing technology and the creation of new jobs. Note that even in the nuclear age, students need to prepare for their future roles as workers. Pessimism about the future is not a productive mind-set. Encourage positive thinking about future planning.

- 3. Distribute Handout #40 and have students read the material.
- 4. Discuss the reading with students.
- 5. Distribute help-wanted ads from daily newspapers. Have students circle jobs created in the last 100 years.
- 6. Distribute Handout #41. Allow twenty to twenty-rive minutes for students to complete their lists.

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7. Have students imagine it is the year 2020. Technology has advanced beyond our dreams. They are to create "help wanted" ads for the year 2020. They should be written in the form of the "help wanted" ads in the newspaper. Encourage diversity. Each student should develop about ten advertisements.

Follow-up: Select the ads the class feels represent the year 2020 and print them in the school or local newspaper.



Title: WORLD SENATE

Objectives:

To analyze both sides of an issue.
To consider possible future problems and solutions.

Grade Level: 7-12

Time: Two class periods

Materials: Handout #42, "World Senate: Bills"

Handout #43, "World Senate: Worksheet"

Procedures:

- 1. Explain to students that they are to assume the role of world senators in the year 2015. The senators will be arguing for and against various proposals, and as a group they will be voting on the bills.
- 2. Distribute Handouts #42 and #43.
- 3. Divide class into seven or more groups, depending on the number of students. Assign one or two bills per group.
- 4. As a group, students are to discuss various aspects of the bills. Encourage them to think of at least five pros and five cons for each bill. Explain that they will be presenting both sides to the class and all students, as "World Senators," will make the final decision. Allow twenty to thirty minutes for group discussion.
- 5. After students have prepared their arguments, have each group present their ideas to the class. Allow each group three to four minutes to present both sides of their proposal.
- 6. As a class, discuss each bill. Encourage students to make relevant comments such as "I support this bill because . . . " and "I do not support this bill because . . . "
- 7. Vote to approve or reject each bill as it is discussed. Once completed, review the results to see which bills were approved or defeated. What does this say about the society of 2015 that you created?



Title: FUTURE SOCIETY

Objectives:

To synthesize materials from previous lessons.

To participate in decision making activities and debates.

To offer the opportunity for free expression and creativity in the development of an ideal society.

Grade Level: 7-12

Time: Four to five class periods

Materials: Handout #44, "The Situation"

Handout #45, "Committee Roles"

Handout #46, "Future Society: Committee Decisions"

Procedures:

- 1. Distribute a copy of Handout #44 to all class members. Read over and clarify the situation with the students.
- 2. Divide the class into two groups. Instruct them that each group is to create the "ideal" society. Explain that they may talk within their group but not with members of the other group.
- 3. Within each group, divide the students into five committees and distribute appropriate committee assignments (Handout #45). Each committee should have two to three members according to class size. The "Symbols Committee" has been designed for young students who might find the tasks of the other committees too frustrating. With this committee you may want to share specific examples of symbols in our society (the Bald Eagle--freedom and strength; the Colorado flag--blue for the sky, red for the red soil, and gold for the mineral wealth). If you have a very large class, other areas that committees could deal with are: sports, dress, transportation, defense, ecology, entertainment, etc.
- 4. Distribute Handout #46 to each committee. Encourage students to thoroughly discuss and evaluate a rule before they write it as a final decision on this sheet. If possible, allow the two groups to work in separate areas on their ideal society to avoid overlapping ideas.
- 5. Allow students one to two class periods to analyze the considerations and make their decisions. The teacher should act as a facilitator during this time helping both groups clarify their ideas.





6. When students have formulated and refined their societies, ask other teachers, the principal, or others to serve as impartial judges as students present their ideas. Allow each group equal time to present the rules and symbols created by the various committees. Judges are to decide which would be the best future society. You may choose to award prizes to the best society, or the students may present their ideas during an assembly, or to the school newspaper, local parent association, etc.

Follow-up: As a concluding activity, you may wish to have students complete a self-evaluation on their contribution during the "Future Society" activity. On the following page is a sample self-evaluation form.



SELF EVALUATION

Think about each of the following items and your contribution during the Future Society activity. Rate yourself honestly, giving yourself 0 to 3 points for each question.

- 2 Sometimes
- 1 Not very much
- 0 Never

	1.	Did you contribute good ideas to your group?
	2.	Did you cooperate with the people in your group?
	3.	Did you cooperate with your committee?
	4.	Did you help clarify points by asking questions?
	5.	Did you try not to monopolize the discussion?
	6.	Did you encourage others to participate in the activity?
	7.	Did you try to be considerate and listen to all opinions?
	8.	Did you make relevant comments during the discussion?
	9.	Did you try to use your imagination and create new solutions to the problems?
	10.	Were you pleased with the final decisions of your group?
	1 01	AL.



• CTIR University of Denver Title: THE FUTURE FIXER

Objectives:

To synthesize information gained and apply it to the future. To recognize that conflict resolution begins with the individual.

Grade Level: 7-12

fime: Two class periods

Materials: Poster board

Markers

Procedures:

1. Discuss the following statement with students. "Conflict has been a problem in the past, present, and will probab. continue to be so in the future. In the activities in this course, you have examined conflict in general, nuclear war as a specific type of conflict, and future conflict problems. The world seems to need some way of resolving conflict."

In this activity, students are to use the information they have learned during the course to create a device for resolving conflict. To survive, the people of the world need to resolve conflicts. Students are to use information gained and their imagination to design a conflict resolution machine called "The Future Fixer."

2. Distribute poster board and markers. Explain to students that they are to design "The Future Fixer" on the poster board. They will create an advertisement for their device. They are to draw their device and give it a name. Encourage creativity and detailing. Be sure students include how their device resolves conflicts.

DAY 2

- Discuss the various devices that students have created. Examine the devices and decide if they are able to solve interpersonal, intrapersonal, intergroup or international conflicts.
- 4. Discuss what the world would be like if a device like the Future Fixer was invented. A device will not fix our future. The answers and the power to create a conflict-free future are within the students themselves. Have students brainstorm ideas about their future and how they can help resolve conflict.



© CTIR University of Denver STUDENT HANDOUTS FOR FUTURE STUDIES UNIT



USE THE SPACES BELOW TO "DRAW" THE PATTERN OF YOUR OWN FUTURE AS YOU SEE IT. LABEL THE HIGHS AND LOWS. CHILDHOOD TEENAGE YOUNG ADULT **ADULT** OLD AGE

CHANGES--COMING FASTER AND FASTER

Inventions and discoveries have caused many changes in the ways people live. More have occured in the last 100 years than in all of human history. And they have been coming at a faster and faster rate. See if you can place those listed here with the period in which they came into general use.

Time Line: Civil War--1860s

WWI--1914-1919

C - 1900 to 1940 D - Since 1940 E - Invented, but not in general use F - Not invented	Vietnam1960s
Killer Satellite	Orbiting Antiballistic Missile Systems Mining of Mars
Camera Electric Power	High Protein Pop
Synthetic Blood	Printing
Nylon	Air Conditioning
Memory Pill	Airplanes
[elephone	Penicillin
[elevision	Automobile
Movies	Record Player
Computers	Tape Recorder
Organ Transplants	Nuclear Power
Radio	Home Holographic Pictures
Spaceships	Space Colonies
Underground Homes	Wrist TVs
Doumsday Devices	Artificial Heart
Cruise Missile	Invention of the A-Bomb



A - Before 1860

B - 1860 to 1900

CHANGES SURVEY

1. What discovery or invention do you think is the most important of the last 100 years?	2. What do we have today that you "never dreamed" we would have.	3. What invention or discovery of the last 100 years has changed your life the most? Briefly state why.
STUDENTS		
1		
2		
3		
4.		
5.		
6.		
7.		
8		
9		
10. ADULTS		
1		
2		
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THE WORLD OF WORK

What will your life be like in the year 2020? Will people be setting up the first space colonies employing hundreds of people? Will interplanetary travel be as common as driving to the store is now?

How old will you be in the years 2020? What strange undreamed of job awaits you? What new jobs will advances in technology produce? What types of recreation will there be? What will your life be like? Most important, will you be ready for the future?

It is not easy to prepare for the unknown. Many of the jobs of ten or twenty years from now haven't yet been invented. Also, it is very difficult to be accurate in predicting the future. For example, in 1948 it was reported that landing on the moon offered so many serious problems for human beings that it would take science at least another 200 years to accomplish this objective.

Today there are many people who study the future. These people are called futurists. The World Future Society presently has 50,000 members worldwide. Using a variety of techniques, they try to predict the future. Many futurists base their predictions on events and trends of the past. Let us try to look into the future and imagine what life will be like.

Will you wake up one morning in the year 2020, dress, jump into your electric car to catch the 9 o'clock train and travel underground from Kansas to New York for a meeting at eleven?

Or do you think you'll stay home and watch life go by?

The answers to these questions may depend on how well you prepare for the future. The question is, how does one prepare for the unknown? The best way to prepare is to learn to think. People who can think on their own will get jobs. In the future, you will spend much of your life learning. People will be constantly learning new jobs and skills and taking up new careers during your lifetime.

Many people in the future will have not one career in their lifetimes, but several. Frequent retraining is already necessary in many fields. Think of the vast amount of changing developments in medicine. Doctors must constantly keep up with the latest advances. Engineers, computer specialists, and auto mechanics all need to keep up with rapid changes in technology.

By the time a child born today graduates from college, the amount of knowledge in the world will be four times as great. By the time that child is 50 years old, 32 times as great. That means many of the jobs we have today will be



obsolete in the future. People will have to find new careers and learn new skills. Try to think of all the jobs that have become obsolete in the past due to changes in technology. What happened when people switched from horses to automobiles for transportation?

How many hours a week will you put into your job? Would you like a three day work week? What will you be doing with your leisure time? in the 1700s, the normal work week was 72 hours. By 1860, people in the U.S. worked 65 hours a week. By 1930, most people still worked 50 hours a week, and since World War II, the normal work week has dropped to 40 hours.

What will your life be like in 2020?



HELP WANTED

Using the "Help Wanted" section of your daily newspaper, complete the following.					
List twenty jobs that have been created in the last 100 years.	What is the technological change that reated the job?				
Example: Automobile mechanic	Auto Industry				

Be ready to discuss which listed jobs you think might be obsolete within the next 100 years and why.

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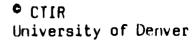
WORLD SENATE BILLS

The year is 2015. You are members of the World Senate. You are in charge of passing or vetoing bills that will affect the entire world. Your group will decide on an issue and argue either for or against it.

- Bill #1 Free medical care will be available for all citizens of the world.
- Bill #2 Due to the exploding world population, the government finds it necessary to force people to live on other planets.
- Bill #3 Space stations orbiting the earth will transmit solar energy to earth. Citizens will be charged by useage.
- Bill #4 Replaceable body parts for humans are legalized.
- Bill #5 The government will begin a program of cloning great musicians, politicians, scholars, and scientists.
- Bill #6 The work week will be reduced to three days, giving people a four day leisure weekend.
- Bill #7 After the eighth grade, formal education will be on a voluntary basis.
- Bill #8 To reach zero population growth (ZPG), the government will have strict control over the number of children a couple will have. No couple will be allowed more than two children.
- Bill #9 Teachers will be replaced by sophisticated computers and teaching machines.
- Bill #10 All money will be replaced by a single, universal credit card that will be good for purchasing all consumer goods and services.
- Bill #11 The government will destroy all the old cities and will replace them with modern, well-planned communities.
- Bill #12 Androids will be produced to hold all low-income jobs.
- Bill #13 All children will be "chosen" by the couple in baby marts. The couple will choose the bay's sex, coloring, height, weight, and intelligence.

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- Bill #14 Through genetic engineering, the government will allow scientists to create a group of "superior intelligence" clones.
- Bill #15 The world will adopt a universal language enabling all people of the world to understand each other.
- Bill #16 To eliminate the uncontrollable crime problem, television security systems will be installed in all buildings, offices, and homes.
- Bill #17 The government will clone a group of "professional soldiers" to fight in war so real people do not have to fight.
- Bill #18 All wilderness areas and national parks will be used for their resources and to build new cities.





WORLD SENATE WORKSHEET

B111 #:		
PROS	CONS	
D:11 #		
Bill #:		
PROS	CONS	



THE SITUATION

The year is 2010. On the planet called Earth, World War I lasted five years, World War II lasted six years, and World War III lasted four days in the year 2001. However, before the final holocaust, the government made plans to save a portion of the Earth's population. You are the survivors in charge of creating the new society. Other survivors around the world will cooperate with your decisions and follow your rules. You are now ready to leave the underground shelter that has been your home for the last nine years and to start life anew.

You and your companions must face the unknown and attempt to survive. In survive there must be a great deal of cooperation, and rules must be agreed upon. In order to create the "perfect" utopian society, you will be divided into two groups. Each group will create their own ideal society following the guidelines in their handouts. Impartial judges will decide on the best society for the Earth's future. Use your imagination, but also remember what you have learned about conflict and war. Do your best: remember, the future of humankind is in your hands!



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COMMITTEE ROLES

The Government Committee

As a committee, you must create a governmental system to rule the individuals in your new society. Use the following list of considerations to create ten rules concerning the government for your new ideal society.

Do you need a leader (leaders)?
How will you choose the leader(s)?
How long will the person(s) hold office?
What powers will the leader(s) have?
Do leaders have special privileges?
What will you do with people who do not follow the rules?
Will you have capital punishment?
Who is in charge of punishment?
Who will enforce the rules?
What will you do with weapons?
How will major decisions be made?
What rules will govern voting?
What rules will govern marriage?

The Food Committee

As a committee, you must create a fair system of food growth and distribution for the individuals in your new society. Use the following list of considerations to create ten rules concerning food in your new ideal society.

How will food be distributed?

Does every person get the same amount of food?

Who grows the food?

Where will food be grown?

Who owns the food?

Where do you get the food? (supermarkets, distribution centers, etc.)

What happens when the food supply is low?



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The Shelter Committee

As a committee, you must create shelter appropriate for the individuals in your new society. Use the following list of considerations to create ten rules concerning shelter for your new ideal society.

What types of materials will be used to construct your shelters? What types of architectural styles will the buildings have? How many people are to live in your shelters? How will they be heated? What will be done with waste material? Who will build the shelters? How will shelters be protected? Will they all be the same or different styles? Who lives where? Will people "buy" the shelters?

The Economic Committee

As a committee, you must create an economic system for the individuals in your new society. Use the following list of considerations to create ten rules concerning the economy in your new ideal society.

What will you use for currency?
What will the currency look like?
What denominations will the money be in?
How will people be paid?
How much will people be paid'.
Who decides how much people jet paid?
Will there be banks?
Will there be checking accounts?
Will there be credit?
What happens to people who cannot work?
Will you have welfare?
Will you have stores?
Will you have a trade system?
Is there a limit to wealth?



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The Symbols Committee

As a committee, you must create the symbols to represent your new ideal society. Use the following considerations to create the symbols for your society. All societies have a feeling of patriotism. We use symbols to represent what we stand for. Be sure you include why you chose what you did and what it represents.

Create a name for your new society.

Design a flag and explain the symbols and colors.

Decide on an animal to represent your new society.

What will the anthem of your new society be and what does it mean?

Create a "motto" for your new society.

Decide on a flower to represent your new society.



FUTURE SOCIETY: COMMITTEE DECISIONS

Name of Committee:	
Committee Members:	
Committee Hembers.	
•	
Final decisions of	the committee:
	·

