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ABSTRACT

GRADES OR AGES: Grades 4-12. SUBJECT MATTER: Smoking. ORGANIZATION AND PHYSICAL APPEARANCE: The guide is divided into three sections, one each for intermediate grades, junior high school, and senior high school. Each section is further divided into units organized around "conceptual statements." Units are laid out in four columns across two pages. Column headings are "objectives," "outline of content," "sample learning experiences," and "resources." The guide is mimeographed and spiral-bound with a paper cover. OBJECTIVES AND ACTIVITIES: Objectives listed for each unit are both behavioral and attitudinal. Correlated with each list of objectives is a wide variety of specific suggestions for activities. In addition, an appendix contains descriptions of five laboratory experiments which illustrate the properties and effects of cigarette ingredients. INSTRUCTIONAL MATERIALS: Each unit contains a list of both print and audiovisual materials to be used in conjunction with activities in the unit. The appendix includes a 14-page list of books, periodicals, pamphlets, posters, films, filmstrips, slides, and guides. STUDENT ASSESSMENT: The appendix contains a sample test for intermediate grade students. (RT)

# Smoking and Health

# guide

for

## Elementary

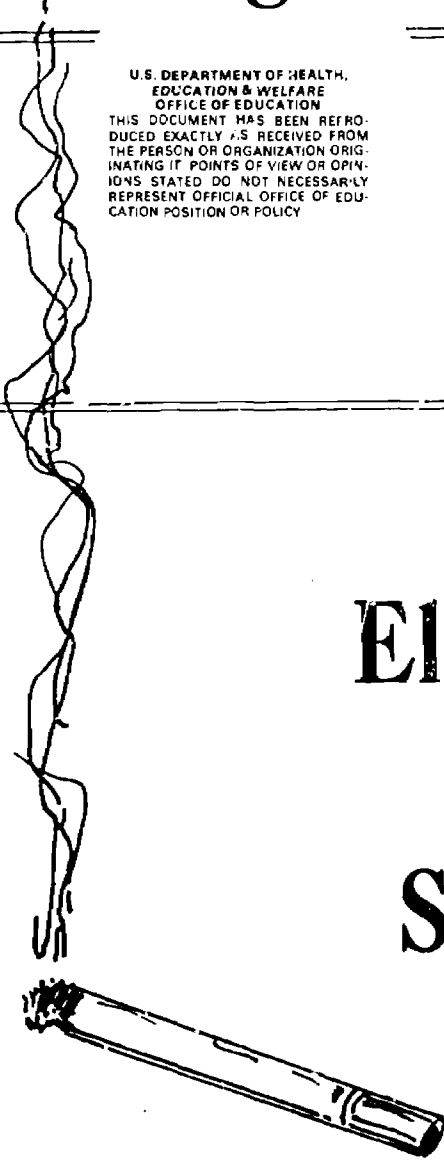
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## Secondary

## Schools

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LOUIS BRUNO  
SUPERINTENDENT OF PUBLIC INSTRUCTION  
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THE FIRST PRINTING OF THIS GUIDE WAS MADE POSSIBLE  
BY CONTRIBUTIONS OF THE FOLLOWING MEMBERS OF THE  
WASHINGTON STATE INTERAGENCY COUNCIL ON SMOKING  
AND HEALTH:

AMERICAN CANCER SOCIETY, WASHINGTON DIVISION, INC.

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WASHINGTON STATE HEART ASSOCIATION

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November 1968  
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This is a working copy of the Washington State Smoking and Health Teaching Unit. Constructive criticism from personnel within school districts throughout the State will help develop this into a permanent Guide. Please let us know if:

1. Any of the material listed is not available.
2. You know of any other good materials which could be included.
3. Any of the listed films or books included are especially outstanding.
4. You found certain learning experiences to be more meaningful than others.
5. You feel any ideas were omitted, need rewording, or are unnecessary.

Chester D. Babcock  
Assistant Superintendent for  
Curriculum and Instruction

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Olympia, Washington 98501

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The project did not get underway until January 1st of 1966. However, once the idea was proposed it proceeded quickly through the efforts of Professor Ruth Wilson of the School of Physical and Health Education, Department for Women, University of Washington, who coordinated the project for the University this year. The faculty and services provided by the University were basic to the development of the guide.

In particular we would like to thank Miss Lucille Trucano, Supervisor of Health Education for the Washington State Department of Public Instruction, who provided the initial direction and continuing support necessary for the guide development; also Dr. Wilfred Sutton, Professor of Health Sciences, San Fernando Valley State College, for the tremendous interest, creativity, and personal dedication with which he served the teachers working on the project; and Dr. Ruth Abernathy, Professor of Health Education, University of California at Los Angeles, who served as consultant to the project in its early stages of progression and for the evaluation of the project itself.

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Harry App, Co-ordinator  
Smoking and Health Program  
Washington State Department of Health

## FOREWORD

Effective health education in our schools examines and evaluates accumulating health science knowledge. At present sufficient evidence is available on the relationship of smoking to health to consider this material appropriately. In addition, accumulating research in the behavioral sciences allows teachers to be increasingly effective in helping students examine health information in such a way that healthful behavior results.

Effective health education is not the responsibility of the schools alone. Indeed, it is recognized by authorities that health education is a parental and community concern, and unless the desired health behavior has the support of parents and community as well as the school, better health practices are difficult to obtain. This guide incorporates the idea of the relationships of the school, parents, and community as a method of improving student health practices.

The guide was developed by competent and successful teachers. It utilizes the conceptual approach, incorporates the latest scientific and empirical smoking and health research, suggests learning experiences for students, and recommends a variety of resources. It has the dimensions needed for a creative and effective smoking and health program in our schools.

*Louis Bruno*

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State Superintendent of Public Instruction

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State Director of Health

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## INTRODUCTION

This guide on SMOKING AND HEALTH was prepared by experienced teachers as an aid to other classroom teachers in educating children and youth concerning one of the serious health problems of today. There is a significant threat to health as shown by the illness, disability, and death associated with smoking. There is an extensive economic cost in terms of cash expended for tobacco products and of payment for the consequences of fires, accidents, and medical care due to smoking. There is an obvious need for effective education. This education must be more than the dispensing of facts to substantiate the threat to health and the monetary loss associated with smoking.

The format of this guide should assist the teacher in planning for an interesting and effective instructional program directed toward the improvement of health behavior of children and youth in addition to the accumulation of facts. The following paragraphs explain the format, and hopefully, convey the concern for teaching that will help young people to work for improved health status.

CONCEPTUAL STATEMENTS. Man's accumulation of knowledge has proceeded at such a rapid pace that the teacher's task of determining which facts are most important and which specifics should be taught is practically impossible. For this reason, some current approaches to the organization of content for a subject matter area have been concerned with determining the concepts or most important ideas toward which teaching should be directed and around which learning can be organized. The conceptual statements represent ideas that can be supported by factual information and by the experience of everyday living. The specific facts can and will change. As isolated items such facts may be relatively meaningless to the individual. Relating the facts to meaningful ideas and utilizing facts to enhance an idea can be important steps in effective learning. The conceptual statements are presented as a framework around which the teacher can plan the outline of content and the learning experiences or learning opportunities which will be utilized.

A limited number of conceptual statements evolved as the teachers at three levels, elementary, junior high, and senior high school, reviewed current literature related to smoking and health. Some of the same ideas are repeated at the three levels but with different degrees of specificity. Some repetition of emphasis on meaningful ideas appeared to be desirable in order to provide for reinforcement. It is suggested that the teacher give serious consideration to the conceptual statements before specific plans are made for application in the classroom.

OBJECTIVES. The objectives suggested in the left hand column have been stated in behavioral terms. An attempt was made to be specific in terms of what the students should be expected to know, feel, and do. The terms cognitive, affective, and overt are in keeping



with current systems for the classification of objectives.<sup>1,2.</sup>

The knowledge objectives, or the cognitive domain, are stated in terms which designate different levels of cognition. They include recall or recognition but go beyond to indicate that the individual can make use of the information by applying, analyzing, synthesizing, or evaluating. If the teacher and the students both know that recall and recognition are important but that more is expected, the approach to both teaching and learning will be affected. It is likely that the individual teacher will prepare additional and perhaps more challenging objectives to guide the selection of content and in the use of learning experiences or learning opportunities. Clearly stated objectives permit more effective evaluation because the desired changes in cognition are stated in clearly understood and measurable terms.

Attitudes, or the objectives in the affective domain, are significant factors in determining one's actions. They are, however, difficult to state in precise terms and difficult to evaluate. The attitude objectives which have been stated in this guide include suggested overt behavior or action on the part of the individual which could (but not necessarily does) indicate the way a person feels. The teacher who is alert in observation of pupils will be able to make subjective judgments that may provide clues regarding the stated objectives in the affective domain. It would be helpful for the teacher to determine additional attitudes which appear to be relevant in relation to the important idea which is involved.

Practices, or overt behavior, illustrate some desirable outcomes which may be achieved on a short term basis and others which may not be achieved until some time in the future. Some students may respond almost immediately with the desired practice because of a combination of family, peer group, and community influences along with the learning which takes place in the classroom. Other students may be inhibited in making changes which may seem desirable from the classroom learning standpoint but which are submerged by outside factors. It is necessary for both teacher and students to know the appropriate overt behavior in order for teaching and learning to be focused in the desired direction.

The objectives in this guide are designed to give direction to the selection of content and the provision of effective learning experiences. They are specifically concerned with the important idea or conceptual statement to which they are directed.

<sup>1</sup>Bloom, Benjamin S. (ed.). TAXONOMY OF EDUCATIONAL OBJECTIVES, HANDBOOK I: COGNITIVE DOMAIN. New York: David McKay Company, 1956.

<sup>2</sup>Krathwohl, David R., and others. TAXONOMY OF EDUCATIONAL OBJECTIVES, HANDBOOK II: AFFECTIVE DOMAIN. New York: David McKay Company, 1956.

### SAMPLE LEARNING EXPERIENCES

The learning experiences that have been suggested provide numerous opportunities for direct student involvement. Emphasis was placed upon selection of learning experiences which require students to be active participants in locating and utilizing factual data in order to reach logical conclusions. Most of the suggestions are student oriented rather than teacher oriented. Teacher guidance and direction are essential to the success of the experiences in achieving the desired objectives.

More learning experiences are suggested than one teacher would be likely to use. Selection of the appropriate activity to meet the needs of a specific group of students is the responsibility of the teacher. The examples suggested should make it easier for the teacher to meet the responsibility, and for the students to increase their knowledge, develop and strengthen their attitudes, and improve their overt health behavior or practices.

RESOURCES. The available student and teacher resources on smoking and health are increasing rapidly as more attention is being given to this serious health problem. A variety of resources are suggested for each of the conceptual statements that have been developed as an area of concern. Many of these resources are readily available to the teacher. Two publications of the State of Washington Department of Health are being distributed. SMOKING AND YOUTH: DEVELOPING A SMOKING AND HEALTH PROGRAM, LEADERS' MANUAL and SMOKING AND YOUTH: RESOURCE MANUAL FOR STUDENTS AND TEACHERS were published in June, 1965. They are excellent materials for use with this guide.

A minimum of information is listed in the resources column. Complete data on these resources and others are included in the bibliography. Information is also provided to assist the teacher in obtaining copies of the recommended materials. Many other resources that are useful to both teacher and students are available and will become available. Helping to keep the resource list up-to-date can be an excellent learning experience for students.

APPENDIX. The sample materials included in the Appendix will be helpful in some of the learning experiences recommended for use with students. The experiments which have been illustrated are relatively simple. Teachers who wish to prepare more detailed apparatus may find the science teachers helpful and they probably will have materials which are needed for the experiments.

SUMMARY. There is no recommendation in the guide to indicate where the instruction should be included in the curriculum. The wide variation in practices among school districts regarding the inclusion of health instruction suggests that different approaches will be used. If schools do have specific time devoted to health instruction at elementary school, junior high school, or senior high school level, it would be logical to place most of the emphasis on smoking and health during this time. Some of the teaching, however, might be included along with other subjects such as science, social science, and physical education. The task is not simple and the challenge is great. The health of many children and youth will be influenced by the effectiveness with which this instruction on smoking and health is carried out.

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CONCEPTUAL STATEMENT: I. Factors exist that encourage and discourage smoking by elementary-school-age individuals.

**OBJECTIVES:**

Knowledge (Cognitive Domain)

The student is able to list reasons people give for smoking.

The student can recall the general provisions of the law regulating smoking.

The student can recognize and analyze the influences that motivate young persons to begin smoking.

The student can draw conclusions about the specific appeal in selected advertisements of tobacco products.

The student can identify the habit-forming characteristics of smoking.

The student can discuss reasons why the majority of students do not smoke.

Attitudes (Affective Domain)

The student indicates an adjustment to conflicting attitudes about smoking by rejecting pressures to smoke.

The student shows his interest in learning more about smoking as it relates to health by seeking out sources of additional information.

By his discussion, the student shows an awareness of and concern about the pressures in cigarette advertising.

Practices (Overt Behavior)

The student participates actively in an anti-smoking program.

**OUTLINE OF CONTENT:**

- A. What are some possible factors which motivate individuals to begin smoking?
  - 1. Family influences - whether members smoke and their attitude about smoking.
    - a. Parents
    - b. Older brothers and sisters.
  - 2. Personal influences.
    - a. Rebellion against accepted social behavior.
    - b. Striving for adolescent maturity.
    - c. "Kicks" - adventure seeking.
    - d. Curiosity.
    - e. Defiance of authority as stated in rules and regulations.
    - f. Reactivation of infantile needs stirred up by adolescence - oral satisfactions.
  - 3. Outside influences.
    - a. Peer group.
      - 1) Desire to belong or conform.
      - 2) Failure to achieve peer-group status.
    - b. Advertising techniques.
      - 1) Testimonials of athletes
      - 2) Association of smoking with:
        - a) Masculine occupations.
        - b) Pleasant surroundings.
        - c) Happy occasions.
    - c. Jingles and cartoons which in themselves have an appeal.
- B. Why do some students continue smoking?
  - 1. Psychological reasons.
    - a. Will power may be too weak to stop.
    - b. Indifference to or lack of knowledge of harmful effects.
    - c. Oral satisfactions.
    - d. Habit-forming behavior connected with smoking - mechanics of lighting and handling cigarettes and blowing smoke.
    - e. May believe that it fulfills a need such as:
      - 1) An aid in conversation by giving one time to think before speaking.
      - 2) Relieving tension or nervousness.
    - f. Friends smoke.
  - 2. Physiological reasons.
    - a. The body becomes adjusted to nicotine.
    - b. Possible feeling of warming effect on the body.
  - 3. Sociological reasons.
    - a. Advertising techniques.
    - b. Fashionable for teen-agers as long as it remains so for adults.
    - c. Non-enforcement of laws regarding smoking.

SAMPLE LEARNING EXPERIENCES:

Involve parents in the anti-smoking program by (a) sending an open letter explaining the program (see Appendix for sample); (b) inviting parents for pre-class discussion of issues, showing of film, CANCER BY THE CARTON, and handing out pamphlet, SMOKE BRAKE.

Give Pre-test (see Appendix). Go over results with the class.

Conduct role playing experiences in decision making. (Example - Develop a skit with one person trying to get another to smoke. Show social pressures students use to get others to smoke.)

Gather anonymous tape recorded reactions to first cigarette. (Example - Smoking experience: when, why, how it tasted.) Play selected tapes for students to discuss.

Develop the following themes with bulletin board displays or displays with pamphlets:

- a. "I won't start because..."
- b. "Sports and cigarettes don't mix!"
- c. "Don't let a cigarette advertisement fool you."

Show the film NO SMOKING which presents facts on why one should not begin to smoke.

Record commercials for analysis and discussion in class showing types of advertising techniques used.

Collect advertisements; student committees identify the kinds of appeals used.

Instigate a counter-advertising campaign using posters, slogans, jingles, advertisements, and popular cartoon character themes.

Discuss formation of habits and difficulty of breaking them.

Make a list of reasons people give for smoking and have a discussion of reasons by the class.

Debate such topics as: Should tobacco companies be allowed to advertise? Should advertising be government regulated? Should there be a law against smoking?

Use the pamphlet I'LL CHOOSE THE HIGH ROAD with the filmstrip of the same name.

RESOURCES:Periodical

Blum, "Ode to the Cigarette Code," HARPER'S pp. 60-63

"Pick A Pack of Trouble" June, 1968 READERS DIGEST

Pamphlets

CIGARETTE SMOKING, CIGARETTE ADVERTISING, AND HEALTH.

HAVE YOU READ THE FACTS? DON'T SMOKE (Bookmark)

\*HERE IS THE EVIDENCE, YOU BE THE JUDGE

\*I'LL CHOOSE THE HIGH ROAD

SMOKE BRAKE

\*U.S. GOVERNMENT WANTS YOU TO KNOW

Posters

BEST TIP YET, DON'T START

DON'T START - DON'T SMOKE

QUIT SMOKING? NEVER STARTED

Films

CANCER BY THE CARTON (Parents)

I'LL CHOOSE THE HIGH ROAD (Filmstrip)

NO SMOKING

THE PHONY FOLKS

A TIME FOR DECISION

Primarily for teachers

Brecher, CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST (Book)

## Elementary School - Intermediate Grades

CONCEPTUAL STATEMENT: I. Factors exist that encourage and discourage smoking by elementary-school-age individuals.

## OBJECTIVES:

## OUTLINE OF CONTENT: (continued)

Practices (Overt Behavior)

The student is critical and analytical of tobacco advertisements that he sees.

The student defers his decision to begin smoking.

The student obeys the law regarding smoking.

- C. What are some of the reasons why the majority of students do not smoke?
1. Family influence - members are non-smokers.
  2. Peer influence - individuals with whom they associate do not smoke.
  3. Personal convictions.
  4. Respect for law.
  5. Knowledge of dangers in relation to harmful physical effects.
  6. Problems for the young smoker such as cost, acquisition, and a place to smoke.

## Elementary - Conceptual Statement I

SAMPLE LEARNING EXPERIENCES:

Collect cartoons or advertisements and write captions.

Investigate by selected students the smoking problem and anti-smoking campaigns in other countries.

Present a skit on smoking by a selected group of junior-high-school leaders.

Inaugurate a school no-smoking campaign.

Collect newspaper and magazine articles on smoking to be grouped into categories such as harmful physical effects, smoking caused fires, etc. Display the collections on a bulletin board or in a scrapbook.

Report on laws regarding smoking.

Survey students to determine reasons why they do not smoke. Results could be tabulated and graphed.

Show the warning label from a pack of cigarettes and report on the pamphlet, U.S. GOVERNMENT WANTS YOU TO KNOW.

RESOURCES: (continued)Primarily for Teachers

CIGARETTE QUIZ (Pamphlet)

SMOKING AND HEALTH, Surgeon General's Report (Book)

SMOKING AND YOUTH: RESOURCE MANUAL (Guide) Washington

POSTER PROJECT ON SMOKING AND HEALTH: American Cancer Society

(Teachers should see junior and senior high school resources for additional teacher sources.)

\*Available in quantity for distribution to students.

## Elementary School - Intermediate Grades

CONCEPTUAL STATEMENT: II. Smoking contributes to poor physical health.OBJECTIVES:OUTLINE OF CONTENT:Knowledge (Cognitive Domain)

The student is able to identify the main harmful ingredients in cigarette smoke.

The student can locate and identify the body systems and tissues affected by smoking.

The student can recall and explain some of the effects of smoking.

Attitudes (Affective Domain)

The student expresses faith in public health authorities by accepting medical research findings on the harmful ingredients in cigarette smoke.

The student shows his appreciation of the work done by voluntary agencies by his acceptance and use of their materials.

Practices (Overt Behavior)

The student avoids the threat to his health which smoking could pose.

The student tells his friends and parents about the known harmful effects of smoking.

- A. What are the characteristics of substances in tobacco smoke?
1. Approximately 300 known chemicals are included in tobacco smoke.
  2. Most of the substances are apparently harmless to man.
  3. Some of the substances, in sufficient quantities, are known to be harmful to man.
    - a. Nicotine is a deadly poison - in amounts contained in tobacco smoke it constricts blood vessels and affects the secretion of digestive enzymes.
    - b. Some tars are known to be carcinogens (cancer causing substances).
    - c. Carbon monoxide combines with hemoglobin in blood to reduce the hemoglobin's ability to carry oxygen, and in excessive amounts, as with an automobile running in a closed garage, can cause death.
  4. Some other substances found in small amounts include:
    - a. Arsenic which is a poison.
    - b. Formaldehyde which is used in embalming.
    - c. Hydrogen cyanide which is a poisonous gas.
  5. Some of the substances pass through filters on cigarettes - nicotine, tars, carbon monoxide.
- B. What are the harmful effects of smoking?
1. Effects on body systems:
    - a. Respiratory:
      - 1) Nose, throat, windpipe, and lungs are irritated.
      - 2) Cilia - first paralyzed and later destroyed.
      - 3) Coughing with resulting lung damage.
      - 4) Faster breathing.
      - 5) Chest pains.
      - 6) Strong association between cigarette smoking and lung cancer demonstrated by studies.
      - 7) Relationship exists between smoking and occurrence of emphysema.
      - 8) Cigarette smoking is the most important of the causes of chronic bronchitis.
      - 9) Cigarette smoking is a significant factor in the causation of cancer of the larynx.
    - b. Cardio-vascular:
      - 1) Speeds up heart beat.
      - 2) Causes blood vessels to constrict which results in raising the blood pressure and lowering skin temperature.
      - 3) There is a clear relationship between smoking and heart attacks - 3 times more frequent among smokers.

SAMPLE LEARNING EXPERIENCES:RESOURCES:

Develop vocabulary list (see Appendix for definitions.)

Experiment to separate tars from tobacco. Compare filter and non-filter types. (see Appendix, experiment number one.)

Experiment to show effect of cigarette smoke on goldfish (see Appendix, experiment number three)

Experiment to demonstrate that tars are inhaled into the mouth and lungs of a cigarette smoker. (see Appendix, experiment number two.)

Experiment to demonstrate the effect of smoking on the pulse rate. (see Appendix, experiment number four.)

Report on contents of cigarette smoke and the uses of these substances as individual chemicals.

Play "Who Am I" Game: One student tells the effects, and the class identifies the agent.

Use question-and-answer board. (Example: Match ingredients with harmful effects.) For directions to construct see SMOKING AND YOUTH: LEADERS' MANUAL, p. 21.

Invite school nurse, coach, representatives of voluntary health organization, or doctor to talk on the effects of smoking on health. Follow with a question-and-answer period.

Use torso model, charts, overlays, to study the physiology of body systems affected by smoking.

Prepare a TV commercial giving scientific facts on smoking and the effect on the body systems.

Develop skit, "Smoker's Cough," with three scenes:

1. Chain smoker as seen going about his work.
2. Morning, still in bed, having coughing fit.
3. Doctor is warning him to stop smoking.

Submit an entry to school science fair. (Example: smoking machine, effects of nicotine on goldfish.)

Make posters showing areas of the body and the effect smoking has on them.

Show slides or charts of cancerous and normal cells and discuss.

Periodicals

"Dogs, Death, and Smoking." TIME

Waters, "The Man Who Wrote His Own Obituary," READERS DIGEST

Pamphlets

Bauer, WHAT YOU SHOULD KNOW ABOUT SMOKING AND DRINKING

\*CANCER OF THE LUNG

CIGARETTE SMOKING AND LUNG CANCER

\*CIGARETTE SMOKING--THE FACTS (Series)

EFFECTS OF SMOKING

\*SMOKING AND HEART DISEASE

TEN LITTLE SMOKERS

\*THERE'S A KILLER AMONG US

\*TO SMOKE OR NOT TO SMOKE

WHAT IS IT ABOUT CIGARETTES?

Posters

EMPHYSEMA

I DON'T SMOKE (Series)

MORE CIGARETTES, MORE LUNG CANCER

RESPIRATORY CHART

Miscellaneous

TORSO MODEL

Primarily for teachers

Brecher, CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST (Book)

SMOKING AND HEALTH, Surgeon General's Report (Book)



CONCEPTUAL STATEMENT: II. Smoking contributes to poor physical health.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- c. Digestive:
  - 1) Possible decrease in enjoyment of food.
  - 2) Nicotine slows the digestive processes by decreasing the flow of digestive juices.
  - 3) Some relationship of peptic ulcer to smoking.
- d. Nervous:
  - 1) Increases nervous tension.
  - 2) Has habit-forming effects.
  - 3) Contributes to insomnia.
- e. Skin:
  - 1) Causal relationship to cancer of lips from pipe smoking.
  - 2) Stains.
- 2. Effects on physical efficiency:
  - a. Carbon monoxide, a principal element of cigarette smoke, displaces oxygen in the red blood corpuscles, thereby decreasing the capacity of the blood to carry oxygen by 10-15%. Smoker is more easily fatigued.
  - b. Nicotine absorbed during smoking speeds up the heart action and at the same time slows its blood supply by constricting the vessels supplying the heart. This puts an extra burden on the heart that handicaps it in activities involving endurance.
- 3. Effects on life expectancy:
  - a. Cigarette smokers : sk death sooner than non-smokers - medical and accidental.
  - b. Statistical evidence has shown the more a person smokes, the greater the risk of death.
- 4. Effects on growth process:
  - a. There is evidence that smoking reduces appetite with a resultant weight loss and an indirect effect on growth.
  - b. There is no clear-cut evidence that smoking itself will stunt growth.

## Elementary - Conceptual Statement II

SAMPLE LEARNING EXPERIENCES: (continued)

Review training rules for athletes.  
(Interview coach to find out why he bans smoking by his athletes.)

Make a chart to show relationship between increased smoking and increase of lung cancer.

Report on articles from READER'S DIGEST, July, 1966, "The Man Who Wrote His Own Obituary," and from TIME, July 15, 1966, "Dogs, Death, and Smoking."

RESOURCES: (continued)Primarily for Teachers

SMOKING AND YOUTH: LEADERS' MANUAL (Guide) Washington

SMOKING AND YOUTH: RESOURCE MANUAL (Guide) Washington

(Teachers should see junior and senior high school resources for additional teacher sources.)

\*Available in quantity for distribution to students.

CONCEPTUAL STATEMENT: III. Smoking involves social and economic factors.

OBJECTIVES:

Knowledge (Cognitive Domain)

The student is able to list common courtesies some smokers ignore.

Student can draw conclusions as to the need for smoking rules and regulations.

The student is able to explain the relationship between smokers' habits and fires started by smokers.

The student can compare the cost of cigarettes with some other luxury or with a necessity.

Attitudes (Affective Domain)

The student, by his response during discussions, displays his interest in the question of whether smoking enhances a person socially.

The student expresses a desire to learn more about expenses related to smoking by asking help in finding information on the topic.

Practices (Overt Behavior)

The student collects news articles about careless smokers.

OUTLINE OF CONTENT:

A. What are some of the social factors associated with smoking?

1. Enhancing or detracting effect upon the smoker and his relationships with other persons.
  - a. Stained teeth and fingers.
  - b. Bad taste in mouth.
  - c. Unpleasant odor on breath.
  - d. Odor of smoke on clothing.
  - e. Appearance as others see him while smoking.
  - f. Annoying effect of smoke upon other persons.
2. Influence of smoking habits of parents on attitudes children develop.
3. Need for smoking laws, rules, and regulations.
4. "Contagious" effect of smoking - a smoker encourages others to smoke.

B. What is the cost to the nation?

1. Safety hazard.
  - a. Loss of life and property from fires caused by careless smokers - forest, home, and industry.
  - b. Accidents due to driver's attention being diverted while lighting or discarding a cigarette.
2. Cost to the individual.
  - a. Family budget and cost - is it worth it?
  - b. Holes in furniture, clothing, rugs, etc.
  - c. Increased dental care for cleaning teeth.
  - d. Smoking accessories.
  - e. Comparable cost in lost time from work for smoker and non-smoker.
  - f. Lowered insurance rates for non-smokers from some insurance companies.
3. Cost to industry.
  - a. Smoking breaks - lost time from work.
  - b. Added janitorial expense.
  - c. Comparative absenteeism from work - smoker and non-smoker.
  - d. Lower physical ability - smoker more easily fatigued.
  - e. Earlier retirement of smoker due to disability.
  - f. Need of smoking regulations with industry.

## Elementary - Conceptual Statement III

SAMPLE LEARNING EXPERIENCES:

Invite dental hygienist to discuss with class the effect of smoking on oral hygiene.

List common courtesies some smokers ignore. (Student observation).

Plan a poster using slogans to emphasize the social aspects of smoking.

Develop skits to show smoking discourtesies.

Present committee reports on topics such as:

- a. "The courage of conviction is a sign of maturity."
- b. "Persons who do not smoke lose the respect and friendship of their companions."
- c. "The danger of always going along with the crowd."

Report on origin, discovery, and popularity of cigarettes.

Invite a junior or senior high school student leader to discuss the topic, "Smoking and Popularity."

Find the cost to a smoker of one pack of cigarettes per day for one year. What else could he do with the money?

Invite the fire chief to talk to class on statistics showing injuries, deaths, and fires caused by smokers.

Collect and categorize news articles about fires caused by careless cigarette smokers. Stress that innocent people are often victims.

Prepare a school bulletin board display on smoking and safety hazards.

RESOURCES:Periodicals

"Non-smokers Given Lower Life Insurance Rates," SCIENCE NEWS LETTER.

Pamphlets

Brecher, SMOKING - THE GREAT DILEMMA

\*CIGARETTE SMOKING, THE FACTS (leaflet series)

\*SMOKING IS FOR SQUARES

WHY NICK THE CIGARETTE IS NOBODY'S FRIEND

Posters

QUIT SMOKING, NEVER STARTED (series)

Films

SMOKING AND YOU

Primarily for Teachers

PROBLEMS OF CHANGING ATTITUDES AND ACTIONS ON SMOKING

SMOKING AND HEALTH, Surgeon General's Report, pp. 359-367 (book)

SMOKING AND YOUTH: RESOURCE MANUAL pp. 3-7, 36-37 Washington

TOBACCO AND AMERICANS

TOBACCO HISTORY SERIES

\*Available in Quantity for distribution to students.

CONCEPTUAL STATEMENT: IV. Ultimately smoking or not smoking becomes a personal decision which one must make.

## OBJECTIVES:

Knowledge (Cognitive Domain)

The student is able to identify the motivating factors that will affect his decision about smoking.

The student is able to recall the warning required by law on cigarettes.

The student can predict the possible consequences of continued smoking.

Attitudes (Affective Domain)

The student displays an interest in discussing with his parents problems involved in the decision to smoke or not to smoke.

The student indicates by his participation in discussions that he recognizes that only the person himself can make the decision to use or not to use tobacco.

The student expresses a desire to keep himself informed about new information by engaging in unassigned reading.

Practices (Overt Behavior)

The student, on the basis of the available scientific evidence, decides not to smoke.

## OUTLINE OF CONTENT:

- A. What conclusion, reached by individuals, influences their decision about smoking?
1. Making the decision to smoke, the following interpretations may be made to justify the decision.
    - a. Physical factors.
      - 1) Most smokers do not develop fatal respiratory disease.
      - 2) The cause-effect relationship between smoking and cancer has not been proved.
      - 3) My health won't be affected if I don't inhale.
    - b. Socio-economic factors.
      - 1) If smoking is as dangerous as claimed, companies would not be permitted to advertise.
      - 2) Parents, friends, and other acquaintances continue to smoke.
    - c. Psychological factors.
      - 1) Smoking is an adult status symbol.
      - 2) Smoking can be started now and given up later.
      - 3) Smoking is enjoyable.
      - 4) Smoking is made appealing by advertising.
  2. Deciding to not smoke - the following interpretations may be made to support the decision.
    - a. Physical factors.
      - 1) Most smokers inhale thus taking more harmful substances into their bodies.
      - 2) The threat to health from smoking is great, and is not worth the risk involved.
      - 3) Fitness to participate effectively in desired activities is decreased.
    - b. Socio-economic factors.
      - 1) Personal hygiene effects - bad breath, bad taste in mouth, stains on teeth and hands - are undesirable.
      - 2) The expense involved is too high for any values associated with smoking.
    - c. Psychological factors.
      - 1) Because the habit may be too difficult to break, the person does not start.
      - 2) Fear associated with possible consequences as indicated by warning label.
- B. What is your decision?
1. Who - only you can make the decision to use or not to use tobacco.
  2. How - based upon the available scientific evidence. If decisions are based upon fact, you don't have to worry about wrong decisions.
  3. When -
    - a. Now - smoking is an easily acquired but hard-to-break habit.
    - b. If undecided, defer any decision to smoke until more evidence becomes available.

## Elementary - Conceptual Statement IV

SAMPLE LEARNING EXPERIENCES:

Show pros and cons of smoking by use of a mobile - how do they balance?

Develop a court case skit of indictment against smoking. (See WHAT YOU SHOULD KNOW ABOUT SMOKING AND DRINKING, pp. 29-31.)

Interview people who smoke and those who do not smoke for their advice on making the decision to smoke or not to smoke.

Discuss in "buzz" groups such topics as: Whose decision? When does it have to be made? How do you decide? Should teen-agers smoke?

Plan a class presentation for a 15-minute spot on PIA, e.g., how youth can help convince adults not to start or how to stop. Culminate with film, TIME TO STOP IS NOW.

Write statements involving items of information to remember. Rewrite as questions to be asked in a question bee.

Show film, SMOKE, ANYONE? and discuss with class its implications for decision making.

Make tape recordings which summarize what your class has learned about smoking and health. Exchange the tapes with other classes in your school or other schools.

Write a short paper based on one's individual decision to smoke or not to smoke.

Use questionnaire and prepare a graph of results. (see Appendix.)

Repeat the Pre-test (see Appendix) and compare results.

RESOURCES:Pamphlets

Rauer, WHAT YOU SHOULD KNOW ABOUT SMOKING AND DRINKING

\*NO IF'S, NO MAYBE'S, NO BUTTS

\*SHALL I SMOKE?

\*WHERE THERE'S SMOKE

\*ENJOY THE PLEASURES OF NOT SMOKING

Posters

DARE TO BE DIFFERENT

DON'T START--DON'T SMOKE

EASY TO START, HARD TO STOP

YOU GOT THIS FAR WITHOUT SMOKING--WHY START?

Films

SMOKE, ANYONE?

TIME TO STOP IS NOW

\*Available in quantity for distribution to students.

CONCEPTUAL STATEMENT: I. Smoking is to a great extent psychologically and socially determined.

II. Smoking can play a negative role in one's interaction with other individuals.

OBJECTIVES:

Knowledge (Cognitive Domain)

The student can recall and state the reasons why individuals begin to smoke.

The student can analyze the reasons why some individuals continue to smoke and others do not.

The student is able to discuss the reasons why some individuals choose not to smoke.

The student can analyze how the effect of smoking on the smoker influences his relations with other individuals.

Attitudes (Affective Domain)

The student shows his concern by encouraging younger children not to smoke.

Practices (Overt Behavior)

The student on the basis of knowledge of psychological and social factors decides that he will not smoke.

The student, on his own initiative, reads current publications on the psychological and social factors influencing smoking.

OUTLINE OF CONTENT:

A. What are the most common reasons for starting to smoke?

1. Curiosity.
2. Identification with parents or older siblings who smoke.
3. Striving for adolescent maturity.
4. Reactivation of infantile needs.
5. Striving for peer approval.
6. Approval by parents in some cases.
7. Rebellion against parents.
8. Sociability.
9. Belief that it is a good idea for weight control.
10. Failure to achieve acceptable goals.
11. Encouraged by advertising.
12. Rapid physical, mental, and emotional changes occurring during adolescence and difficulty in adjusting to these.
13. On a bet or a dare.
14. For thrills.

B. What are the most common reasons for continuing to smoke?

1. Cigarette represents a reward that smoker can offer to himself whenever he wishes.
2. Smoking as a means of self-expression.
3. Smoking is an act of relaxation.
4. Because it seems to stimulate the senses.
5. Because the smoker enjoys it.
6. Some factors included in the list under "A" above.

C. Why do some people choose not to smoke?

1. No desire to smoke.
2. Can find other activities which help them to relax.
3. It is too expensive.
4. It is a messy habit.
5. Education - they know and accept the evidence of harmful effect on the smoker's health.
6. Moral conviction - belief that it is wrong.
7. The danger of fires and other accidents due to smoking.
8. It can affect their ability to participate in athletics or other activities.
9. Their friends do not smoke.

D. What are some of the most common social disadvantages of smoking?

1. Bad breath.
2. Odor on clothing.
3. Stained teeth and fingers.
4. Burns in clothing and furnishings.
5. Negative effect on non-smokers allergic to or irritated by tobacco smoke.

SAMPLE LEARNING EXPERIENCES:

Discuss the various needs of teenagers and the relationship of smoking to these (include their desire to belong and identify with their peer group and their desire for adult status).

Compile from friends and relatives who smoke the advantages and disadvantages they see in smoking. Determine other reasons from the literature. Compare advantages and disadvantages and establish a sound basis for one's decision regarding smoking.

Prepare a bulletin board display comparing the advantages and disadvantages as discussed in the preceding suggested experience.

Debate the topic: "To smoke or not to smoke."

Discuss in small groups: "The feelings of a non-smoker when members of his group have started to smoke." Share feelings with the class and make suggestions to help this individual with his or her own personal decision.

Plan an assembly program on smoking for the whole school or for parents or for both. Utilize the variety of ideas suggested in relation to each of the conceptual statements for the junior high grades. Involve the students in the planning and have them present the program.

Follow-up on the assembly program by interviewing persons in the audience and by discussing in your classroom the presentation as well as the reactions by those who were in the audience.

Present skits illustrating the common social disadvantages of smoking.

Keep records for a week of the occurrence of the common social disadvantages of smoking as they see them. Discuss their findings.

Prepare slogans for use each day. One or more of the reasons why individuals choose not to smoke. Put the daily slogan on a school bulletin board where other classes will be able to see them.

RESOURCES:

Pamphlets

Brecher, SMOKING - THE GREAT DILEMMA

SMOKING: FACTS YOU SHOULD KNOW,  
Surgeon General's Report,  
Summary of Research

Posters

CIGARETTES SHORTEN LIVES -  
NO IF'S NO MAYBE'S, NO BUTTS

DON'T SMOKE, THEY SAY

DON'T START - SAVE YOUR HEART

I DON'T SEE IT

WHY DO THEY START?

Films

POINT OF VIEW

BREATH OF AIR

Primarily for teachers

HEALTH HELPS - Smoking and Health  
(Guide)

Johnson, "Some Relationships of  
Smoking to Teenagers' Achievements,  
WASHINGTON EDUCATION (periodical)

PROBLEMS OF CHANGING ATTITUDES AND  
ACTIONS ON SMOKING (Pamphlet)

SMOKING AND YOUTH: RESOURCE MANUAL  
(Guide) Washington

Spokane Public Schools, TEACHING  
GUIDE - SMOKING UNIT, Supplement IV  
p. 5 (Guide).

TEACHING ABOUT SMOKING AND HEALTH,  
pp. 73-80 (Guide) Illinois.

TEACHERS' GUIDE ON SMOKING AND  
HEALTH p. 15 (Guide) Rhode Island

\*Available in quantity for  
distribution to students.



Junior High School

- CONCEPTUAL STATEMENTS: 1. Smoking is to a great extent psychologically and socially determined.
- II. Smoking can play a negative role in one's interaction with other individuals.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

6. Stale odor from lingering smoke and discarded butts.

D. What conclusions can be reached regarding the psychological and social aspects of smoking?

1. Although the evidence gathered so far shows that, "Smokers are different from non-smokers psychologically and socially, there are many differences among smokers and among non-smokers, so that some smokers may be like some non-smokers", there are so many exceptions that, at this time, no generalizations can be made. (Surgeon General's Report)

2. "Smoking appears to be not one behavior but a range of psychologically diverse behaviors each of which may be induced by a different combination of factors and may serve different needs. Therefore, no single explanation can suffice." (Surgeon General's Report.)

Junior High School

CONCEPTUAL STATEMENT: III. Advertising is the chief persuader of the tobacco industry.

OBJECTIVES:

OUTLINE OF CONTENT:

Knowledge (Cognitive Domain)

The student can trace the steps in the evolution of advertising.

The student can identify the major goal of advertising.

Given selected cigarette advertisements, the student can evaluate critically the claims made for tobacco products.

The student can identify organizations which attempt to counteract the influence of tobacco industry advertisements and can explain what they do.

The student can compare and contrast the filter effectiveness of various brands of cigarettes.

Attitudes (Affective Domain)

The student indicates that he appreciates or recognizes the work of community organizations in protecting the health of the community by talking about these organizations and their work in a supportive manner.

Practices (Overt Behavior)

The student does evaluate cigarette advertisements.

- A. How has advertising evolved as a significant force in our society?
- B. How does the advertiser appeal to different groups in our society?
  1. How do ads affect and encourage women to smoke?
  2. How do ads encourage college students to smoke?
  3. How do ads induce younger students to smoke?
  4. How do ads allay fear that smoking causes nervousness, sore throats, coughing, or poor health.
  5. How do ads infer success in business, love, or athletics.
- C. What points should be considered in evaluating advertisements?
  1. Are claims supported by ample and conclusive scientific evidence.
  2. Are facts distorted to infer something different from what they actually support.
  3. Are widely held opinions which are untrue or exaggerations used to mislead the reader.
- D. What agencies combat cigarette advertising fallacies?
  1. American Cancer Society.
  2. American College of Chest Physicians.
  3. National Tuberculosis Association.
  4. American Medical Association.
  5. Better Business Bureau.
  6. American Public Health Association.
  7. American School Health Association.
  8. U. S. Department of Health, Education, and Welfare.
  9. Federal Trade Commission.
  10. National Congress of Parents and Teachers.
  11. National Interagency Council on Smoking and Health.
  12. American Heart Association.
  13. American Association for Health, Physical Education, and Recreation.
- E. How do agencies combat the appeals made by tobacco company advertisements?
  1. They provide audio-visual and printed materials for use in education of the public.
  2. They support and conduct research to determine cause, prevention, and cure of illnesses associated with smoking.

## Junior High School - Conceptual Statement III

SAMPLE LEARNING EXPERIENCES:

Lecture by teacher or report by student on the evolution of advertising (see Appendix).

Analyze advertising: Collect advertisements old and new from various communications media. Evaluate claims for accuracy. Compare the appeals made in the past and the present.

Make posters for the five suggested areas of appeal using pictures or hand-drawn reproductions of the original advertisements and explanations as to what the advertisers really intend the reader to think.

Debate such statements as:

- a. "Cigarettes should be labeled as dangerous to health and should show tar and nicotine content."
- b. "The government should restrict advertising of such a dangerous product as tobacco."
- c. "The image of important people smoking and endorsing cigarettes influences youth to smoke."

Present quickie T.V. commercials to bring out facts against smoking. Committees planning these may wish to use such situations as:

- a. Coach and athlete.
- b. Family group.
- c. Doctor and patient.
- d. Youth on a picnic.
- e. Candid confessions of smokers who are trying to stop.

Sample class members' ideas on the persuaders in communications media which have the greatest effect on youth and smoking. Media examples:

- a. Billboards.
- b. Television.
- c. Magazines.
- d. Radio.
- e. Newspapers.

Compile a list of community organizations which help inform individuals about the dangers of smoking and discuss how each organization contributes. Have students visit agencies if necessary or invite speakers from agencies.

RESOURCES:Books

Brecher, CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST, pp. 143-170.

Periodicals

Blum, "An Ode to the Cigarette Code," HARPER'S MAGAZINE.

"Cigarette Smoking, Cigarette Advertising and Health," JOURNAL OF SCHOOL HEALTH

"Reports to Consumers on American Cigarettes," READER'S DIGEST (Reprint)

 pamphlets

Brecher, SMOKING - THE GREAT DILEMMA, pp. 11-15.

\*CIGARETTE SMOKING - THE FACTS

Posters

BEST TIP YET! DON'T SMOKE

EASY TO START - HARD TO STOP - WHY SMOKE?

DARE TO BE DIFFERENT - DON'T SMOKE

YOU GOT THIS FAR WITHOUT SMOKING - WHY START?

Films

SMOKE, ANYONE?

TOO TOUGH TO CARE

UP IN SMOKE

BREATH OF AIR

TIME FOR DECISION

## Junior High - Conceptual Statement III

SAMPLE LEARNING EXPERIENCESRESOURCES (continued)Primarily for teachers

Packard, THE HIDDEN PERSUADERS  
(Book)

Packard, THE WASTE MAKERS (Book)

Spokane Public Schools, TEACHING  
GUIDE - SMOKING UNIT, Vol. III,  
Number 1, January 1965, pp. 7-9

WILL YOUR STUDENTS SMOKE?  
p. 161 (Guide)

\*Available in quantity for  
distribution to students

CONCEPTUAL STATEMENT IV. Smoking has a negative influence on the state of health of the smoker.

## OBJECTIVES:

Knowledge (Cognitive Domain)

The student can describe the added burdens placed upon the respiratory tract by foreign materials brought into the lungs.

The student can identify the parts of the body in which smoking can contribute to the onset of disease.

The student can list specific diseases for which a relationship between smoking and their onset has been established.

The student can relate the increased chance for the occurrence of specific disease conditions to different smoking habits.

The student can analyze research reports and cite the type of evidence which supports the relationship between smoking and the onset of specific disease.

The student can predict the relationship of heavy smoking to life expectancy.

Attitudes (Affective Domain)

The student shows his interest in learning more about smoking as it relates to health by seeking out additional sources of accurate information.

## OUTLINE OF CONTENT:

- A. What are some of the general physical complaints of the smoker?
  1. Cough.
  2. Loss of appetite.
  3. Shortness of breath.
  4. Chest pain.
  5. Diarrhea.
  6. Easily fatigued.
  7. Abdominal pains.
  8. Hoarseness.
  9. Loss of weight.
  10. Stomach pains
  11. Insomnia.
  12. Difficulty in swallowing.
- B. How are tobacco products prepared for use in smoking?
  1. Tobacco leaves dried, rolled, or ground to make pipe tobacco, cigars, or cigarettes.
  2. Flavoring may be added.
  3. Paper is used for rolling cigarettes.
  4. Efforts have been made to de-nicotinize cigarettes and to use other substances for cigarettes.
- C. What is the nature of some of the nearly 300 known chemicals in tobacco smoke?
  1. Nicotine - a deadly poison which even in the small amounts found in tobacco smoke affects the functioning of the nervous system.
  2. Tars - which have been proven to be carcinogenic (cancer causing) in animal experiments.
  3. Carbon monoxide - a gas which interferes with the oxygen carrying ability of the hemoglobin in the blood.
  4. Many other substances which in sufficient amounts are known to be harmful; but in the amounts contained in tobacco smoke, no known threat to health has been established.
- D. What are the general effects of substances in tobacco smoke on the circulatory system?
  1. Constriction of blood vessels.
  2. Increased pulse rate.
  3. Higher blood pressure.

## Junior High School - Conceptual Statement IV

SAMPLE LEARNING EXPERIENCES:

Share and discuss evidence about smoking and health from reliable sources such as:

Surgeon General of the United States  
National Tuberculosis Association  
American Cancer Society  
American Heart Association  
American Medical Association  
American College of Chest Physicians  
Royal College of Physicians of London, England  
World Health Organization  
National Clearinghouse on Smoking and Health,  
United States Public Health Service  
Interagency Councils on Smoking and Health  
(Discuss why these agencies are considered reliable)

Make a large chart of the body to indicate the parts of the body adversely affected by tobacco products and attach explanatory notes to show the nature of the damage.

Prepare a glossary of terms associated with smoking and health. Use pictures and drawings to illustrate terms whenever possible.

Report on the harmful substances isolated from tobacco smoke. Discuss the nature of these substances and the known effects on the body.

Conduct experiments using smoking machines to demonstrate the effect of nicotine on goldfish and the presence of tar in tobacco smoke. (see Appendix)

RESOURCES:Books

Bauer, THE NEW HEALTH AND SAFETY

Brecher, CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST, Chapter I.

INTRODUCTION TO RESPIRATORY DISEASES, pp. 66-74.

SMOKING AND HEALTH, Surgeon General's Report, pp. 37-39.

THE CELL, Life Science Library Series.

Periodicals:

Anderson, "Tobacco and Health," TODAY'S HEALTH, Part I. pp. 27-34

Anderson, "Tobacco and Health," TODAY'S HEALTH, Part III, pp. 18-21.

Hammond, "The Effects of Smoking," SCIENTIFIC AMERICAN

"Lung Cancer and Cigarettes," READER'S DIGEST

McKeown, "How AMA Research Into Smoking Will Help You," TODAY'S HEALTH, Part II, pp. 12, 72

Waters, "The Man Who Wrote His Own Obituary," READER'S DIGEST

Pamphlets

A LIGHT ON THE SUBJECT OF SMOKING

\*ANSWERS TO 101 QUESTIONS ABOUT CANCER

Bauer, WHAT YOU SHOULD KNOW ABOUT SMOKING AND DRINKING

CANCER OF THE LUNG

Junior High School

CONCEPTUAL STATEMENT: IV. Smoking has a negative influence on the state of health of the smoker.

OBJECTIVES: (continued)

OUTLINE OF CONTENT: (continued)

Practices (Overt Behavior)

The student uses scientific information in making his own decision about smoking.

The student informs his parents and his friends about the evidence that he learns about smoking and its effects upon health.

- E. How does smoking add to the burden placed upon the lining cells of the respiratory tract?
1. Lining cells have cilia which sweep foreign materials toward the mouth; these cells produce mucus which helps trap foreign materials which the cilia remove.
  2. Much foreign material is found in the air which we breathe.
    - a. Dust.
    - b. Chemicals from industry.
    - c. Exhaust waste materials from cars.
    - d. Smoke from tobacco.
    - e. Pollen from plants.
  3. Constant irritation from chemicals and heat in smoke cause increased action in lining cells. They enlarge and produce an abundance of mucus, which undergoes a chemical change and becomes more sticky.
  4. Basal cells respond to the irritation by progressively disordered multiplication, resulting in the formation of an excessive number of bizarre-shaped cells unable to perform their normal functions.
  5. There is a disappearance of cilia and therefore mucus and trapped particles are not swept up for discharge and remain trapped within the bronchi. This results in irritation to mucus membrane and therefore a deep, persistent, involuntary cough in an attempt to remove the mucus.
  6. Walls of air sacs thicken and scar tissue forms. Walls lose elasticity and weaken. Trapped mucus and pressure may gradually rupture air sacs. Eventually this may result in emphysema.
- F. What are the diseases for which smoking has been shown to be a contributing cause?
1. Cancer - a group of diseases in which there is uncontrolled and disordered growth of abnormal cells which, if unchecked, will cause death.
    - a. Lung cancer.
      - 1) Symptoms are persistent cough, blood in sputum, and pain in the chest.
      - 2) Death rate is 95%. Only 5% survive for a five-year period.
    - b. Lip cancer - due to associated mechanical irritation and heat.
    - c. Cancer of the larynx.
    - d. Oral cancer.
    - e. Bladder cancer in males.
    - f. Cancer of the esophagus.

## Junior High - Conceptual Statements IV (continued)

## SAMPLE LEARNING EXPERIENCES: (continued)

Prepare graphs for opaque or overhead projection using a variety of forms (bar, line, circle, symbol) to illustrate the incidence of heart disease, lung cancer, emphysema, and chronic bronchitis in smokers as compared to non-smokers.

Collect and display articles or pictures illustrating the relationship of smoking to specific diseases affecting humans.

Discuss the effects of smoking on the tissues of the respiratory tract and show progressive changes as illustrated in Hammond's article in the SCIENTIFIC AMERICAN, July, 1962, or other sources.

Show the film FROM ONE CELL and discuss the possible effects of substances in tobacco smoke on cell development as illustrated in the film.

Demonstrate "An Effect on Emphysema" (see Appendix).

Demonstrate about emphysema (home experiment). Hold a lighted match approximately 6 inches from open mouth. Without pursing the lips, blow out the flame. An individual who cannot do so shows signs of inability to expire air normally which may be an indication of emphysema.

Discuss relationship of smoking and cancer; include discussion of how cancer quacks take advantage of the public's fear and ignorance of cancer. Reports on cancer quackery might be a follow-up of the discussion:

- a. What kinds of gimmicks and products are used to mislead the public?
- b. How much money is spent annually on cancer quackery?
- c. Describe quacks and their activities.
- d. Who are the quack's patients?
- e. What is the role of different agencies in the control of quackery?

Put "Mr. Tobacco" on trial. (see Appendix for suggestions).

## RESOURCES: (continued)

Pamphlets (continued)

CARDIOVASCULAR DISEASES IN THE U.S. - FACTS AND FIGURES.

\*CHRONIC BRONCHITIS - THE FACTS

\*CHRONIC COUGH - THE FACTS

CIGARETTE SMOKING, CIGARETTE ADVERTISING, AND HEALTH

CIGARETTE SMOKING AND CANCER

\*EMPHYSEMA - THE FACTS

FILTER THE FACTS BEFORE THE SMOKE

HEART PUZZLE

\*HERE IS THE EVIDENCE - YOU BE THE JUDGE

\*IT'S UP TO YOU

NARROWING THE SEARCH

\*SHORTNESS OF BREATH - THE FACTS

THE FACTS ABOUT SMOKING AND HEALTH

TEEN-AGERS AND CIGARETTES

TEN LITTLE SMOKERS

THE FACTS ON TEENAGE SMOKING

THERE'S A KILLER AMONG US

WHAT IS IT ABOUT CIGARETTES?

WHY NICK THE CIGARETTE IS NOBODY'S FRIEND

YOUTH LOOKS AT CANCER

Posters

EMPHYSEMA



CONCEPTUAL STATEMENT: IV. Smoking has a negative influence on the state of health of the smoker.

## OBJECTIVES:

## OUTLINE OF CONTENT: (continued)

2. Emphysema - A condition in which alveoli (air sacs) become distended and the walls between them may be ruptured.
  - a. Ability to breathe is severely restricted.
  - b. Leads to almost complete disability due to inability to provide oxygen.
  - c. Cardiac damage may result due to increased strain upon the heart.
3. Coronary heart disease - Atherosclerosis causes obstruction of the coronary arteries and further constriction of these blood vessels reduce blood supply to heart muscle and may cause heart attack.
4. Stroke - If vessels supplying blood to brain are atherosclerotic, the constriction due to smoking may contribute to complete blockage.
5. Chronic bronchitis - An inflammation of the bronchial tubes which causes narrowing of the tubes, resulting in:
  - a. spasm of muscle layer
  - b. change in quality (as well as quantity) of mucus
6. Buerger's disease (rare) - A chronic inflammatory disease which closes off gradually and completely the arteries and veins in the extremities. Constriction of vessels due to smoking increases the severity of the condition.
- G. What practical solutions should a person consider to prevent damage to his health due to smoking?
  1. If you don't smoke, don't start.
  2. If you do smoke, give it up.
  3. If you can't give it up, cut down.
  4. If you can't cut down, switch to low-nicotine, low-tar cigarettes, don't inhale deeply, don't smoke the cigarette to a short butt, and smoke slowly to reduce heat.
  5. Change to a pipe to reduce threat to the lungs.

## Junior High - Conceptual Statement IV (continued)

SAMPLE LEARNING EXPERIENCES: (continued)

- Prepare posters to culminate the topic:
- a. "Invest wisely in your future by not smoking."
  - b. "Good health is your greatest asset, don't endanger it by smoking."
  - c. "Here is the evidence - you be the judge."

RESOURCES: (continued)Films

EMPHYSEMA  
 FROM ONE CELL  
 THE TRAITOR WITHIN  
 SMOKING & HEART DISEASE  
 TIME TO STOP IS NOW

Primarily for Teachers

I HAVE A SECRET CURE FOR CANCER  
 (pamphlet)  
 THE CANCER QUACKS (Pamphlet)  
 THE EFFECTS OF SMOKING (Periodical)  
 SMOKING AND YOUTH: RESOURCE MANUAL  
 (Guide) Washington  
 YOUR TEENAGE CHILDREN AND SMOKING  
 WHAT TO TELL YOUR PARENTS ABOUT  
 SMOKING

\*Available in quantity  
 for distribution to students.

Junior High School

CONCEPTUAL STATEMENT: V. Loss of life and property can result from accidents associated with smoking.

OBJECTIVES:

OUTLINE OF CONTENT:

Knowledge (Cognitive Domain)

The student can illustrate specific ways in which smoking can cause accidents.

The student can describe results of smoking accidents to life and property.

Given a specific situation involving smokers, the student can formulate a reasonable plan of safety.

Attitudes (Affective Domain)

The student indicates that he is concerned with the detrimental effects of smoking by participating in an anti-smoking campaign.

The student shows his concern about fires by putting out matches and cigarette butts left by careless smokers.

Practices (Overt Behavior)

The student reminds smokers, who are careless about lighted matches and cigarette butts, of the danger of fires.

- A. How can smoking cause accidents?
  1. Carelessness with matches and cigarettes can cause fires.
  2. Drivers who are smoking may cause hazardous situations by being distracted.
- B. What dangers to humans are associated with accidents caused by smoking?
  1. Minor burns from matches or cigarettes
  2. Burns from fires (home, forests, etc.) started by smokers.
  3. Suffocation from fires started in sofas, beds, or other furniture.
- C. What damage can smoking cause to property?
  1. Fire damage - butts scarring floors and furniture, home and other building fires, forest fires, holes burned in clothing.
  2. Furnishings and clothes need more frequent cleaning due to odor.

## Junior High - Conceptual Statement V

SAMPLE LEARNING EXPERIENCES:

Set up a display with items or pictures brought by students that show damage caused by careless smokers.

Conduct a poster-making contest to illustrate fire safety factors for home, school, and community.

Conduct a contest to develop slogans for a community campaign to prevent fire and accidents from smoking.

Conduct interviews of a fire chief, police officer (local or state), fire-insurance adjuster, and a forest ranger on relationship of smoking to fires or accidents.

Invite resource speaker to discuss fire hazards. (See above experience for sources of speakers.)

Formulate a reasonable plan of safety in a specific situation. "What would you do in each of the situations below?"

- a. You are riding down the highway in a national park and notice a small brush fire has started as a result of carelessness with a cigarette.
- b. An ash tray is emptied into a waste basket and a fire starts.
- c. A cigarette is dropped on the floor of a moving vehicle.

Bring to class a list of safety violations by smokers that the student has observed during one week.

Tabulate on a large chart the number of fires in the community for which the fire department has been summoned. Listen for reports on the local radio or obtain by contacting the fire department to find out causes of fires; star those associated with smoking.

RESOURCES:Periodicals

Local newspaper reports

Forest Service reports

Primarily for Teachers

THE HEALTH HAZARDS OF SMOKING  
p. 18 (Guide) Cleveland Public  
Schools

INSURANCE FACTS, 1965, p. 33  
(Pamphlet)

Spokane Public Schools, TEACHING  
GUIDE - SMOKING UNIT, Vol. III,  
No. 1, January 2, 1963

\*Available in quantity for  
distribution to students

Junior High School

CONCEPTUAL STATEMENT: VI. Control of the use of tobacco has extensive economic implications.

OBJECTIVES:OUTLINE OF CONTENT:Knowledge (Cognitive Domain)

The student can give reasons for lower insurance rates for non-smokers than for smokers.

The student can calculate the cost of the use of tobacco to the individual and to the nation.

The student can list economic benefits of the tobacco industry to the state and to the nation.

The student can compare and contrast the cost of the tobacco industry with the economic benefits which it contributes to our society.

Attitudes (Affective Domain)

The student shows that he recognizes and appreciates the effect of curtailment of the tobacco industry by his interest in learning more about the pros and cons of suggestions for control.

Practices (Overt Behavior)

The student explains the pros and cons of the economic aspects in making his decision about smoking.

- A. Why do some insurance companies offer lower premiums for non-smokers than for smokers?
1. Non-smokers require less days of hospitalization per year than do comparable smokers; therefore, they pay less for health insurance.
  2. Non-smokers live longer than smokers; therefore, they pay less for life insurance.

- B. What is the cost of smoking to the individual smoker?

1. In dollars and cents (at 38¢ per pack--the cost in Washington in 1966) without computing interest which would be earned if money was saved.

Packs per day	Savings if money is deposited in bank.			
	1 Year	5 Years	10 Years	15 Years
1	\$136.30	\$684.00	\$1368.00	\$2052.00
1½	205.20	1026.00	2052.00	3078.00
2	273.60	1368.00	2776.00	4174.00
3	410.40	2052.00	4104.00	6156.00

2. Disability and illness among smokers between ages 25 and 64 are almost double the rate for non-smokers within the same age bracket - a specific price label cannot be determined.

- C. What is the cost of smoking to the nation?

1. In 1965 the estimated expenditure for tobacco products in the United States was more than .5 billion, which would be about \$43 for each of the approximately 200,000,000 men, women, and children in the nation.
2. The loss in time from work due to illness associated with smoking and the loss in man hours of work due to premature death caused by smoking.
3. The cost of medical care for those under doctor's treatment and/or hospitalized.
4. Disability payments for individuals unable to work due to the effects of illness (emphysema and chronic bronchitis) associated with smoking rank second among all payments made by Social Security for disability.

## Junior High School - Conceptual Statements VI

SAMPLE LEARNING EXPERIENCES

Interview insurance company personnel and report on rates as they compare to smokers and non-smokers.

Prepare a graph showing the comparative rates for different types of insurance for smokers and non-smokers for companies that do offer lower premiums.

Compute savings by students interested in mathematics, including interest on money, for families with different numbers of smokers and with different smoking habits.

Prepare a bulletin board display showing pictures of items that could be purchased with the money saved by individuals or families in the activity suggested above.

Collect reports from the newspapers showing the property damage and/or injury or death due to fires caused by smokers.

Determine current information on the expenditures for tobacco products and the income derived by individuals and the government from the tobacco industry through library research. Discuss the findings in class and compare the benefits with the economic loss and the intangible effect on health of smokers.

RESOURCESPeriodicals

"Non-smokers Given Lower Life Insurance Rates,"  
SCIENCE NEWS LETTER

Pamphlets

ANSWERING THE MOST OFTEN ASKED QUESTIONS ABOUT CIGARETTE SMOKING AND LUNG CANCER

Brecher, SMOKING - THE GREAT DILEMMA

CANCER FACTS AND FIGURES, 1965 and 1966, p. 25 in the 1965 issue

SMOKE SIGNALS, July-Sept. 1962

Primarily for Teachers

SMOKING AND YOUTH: RESOURCE MANUAL, p. 1 (Guide)

Spokane Public Schools, TEACHING GUIDE - SMOKING UNIT, 1963 edition, p. 5 (Guide)

TEACHING ABOUT SMOKING AND HEALTH (Guide) Illinois

ANNUAL REPORT ON TOBACCO STATISTICS, 1965 (Book)

\*Available in quantity for distribution to students

Junior High School

CONCEPTUAL STATEMENT: VI. Control of the use of tobacco has extensive economic implications.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- D. What factors should be considered in computing the cost of smoking to industry?
1. Higher rate of absence among smokers than among non-smokers.
  2. Loss of time for smoking breaks and smoking on the job.
  3. Lowered physical fitness of smokers.
  4. Earlier retirement due to disability which may occur during most productive years of the employee's work period.
  5. Cost of fire damage due to smoking.
  6. Increased janitorial expenses.
- E. What are some of the economic contributions of the tobacco industry to the State and Nation?
1. Washington state tax of 11¢ per pack, plus 2¢ sales tax, contributes to income of the State.
  2. Federal taxes on tobacco products amounted to more than \$2.1 billion between July 1964 and June 1965.
  3. Receipts from state and local government taxes on tobacco products amounted to nearly \$2.5 billion in 1964.
  4. Employment of personnel in all aspects of the tobacco industry.
- F. What are the major factors to be considered in evaluating the economic aspects of the use of tobacco products in the United States?
1. The 1/3 or more of the population who smoke and stand to be adversely affected from a health standpoint.
  2. The cost of tobacco products, loss of income, medical care, and property damage associated with smoking.
  3. The discomfort and annoyance suffered by non-smokers.
  4. The employment and economic welfare of the 1/200 of the population supported by the tobacco industry.
  5. The money contributed to our economy by taxes and advertising from the tobacco industry.
  6. The pleasure and satisfaction enjoyed by smokers.

Junior High School

CONCEPTUAL STATEMENT: VII. The smoking habit, once established, is difficult to break.

OBJECTIVES:

OUTLINE OF CONTENT:

Knowledge (Cognitive Domain)

The student can define a habit.

The student can list examples of common habit.

The student can contrast and compare habit versus addiction.

The student can apply the steps relating to the breaking of a habit such as smoking.

Attitudes (Affective Domain)

The student shows his appreciation of the difficulty of breaking a habit by assisting other persons who are attempting to break a habit (smoking or otherwise).

Practices (Overt Behavior)

The student who has started to smoke stops doing so.

The student supports individuals who are trying to stop smoking.

A. What is a habit?

1. A fixed or constant practice established by frequent repetition.
2. Habit refers to an act repeated so often by an individual that it becomes an automatic response, a characteristic action.

B. Comparison of "habit forming" and "addiction."

1. Habit:
  - a. A desire (but not a compulsion) to continue.
  - b. No tendency to increase the dosage once established.
  - c. Some degree of psychological dependence but absence of physical dependence.
  - d. Detrimental effects primarily on the individual.
2. Addiction:
  - a. Must increase dosage (tolerance).
  - b. Psychological and physiological dependence.
  - c. Suffers withdrawal symptoms.
  - d. Detrimental to society.

C. How can one establish a new habit? (Bernard)

1. Clearly state the purpose of the new habit.
2. Plan how this habit can be carried out.
3. Begin the new plan vigorously.
4. Do not permit any exceptions to the new habit, particularly at first.
5. Continue to perform the new habit.

D. How can one break a habit?

1. Old habits may be broken by applying the same method as for establishing a new habit; however, an old habit must be replaced by a new, improved habit so as to direct attention to another interest and not permit indulgence in the old habit.

E. Is there an increase in the national smoking habit pattern in our country?

1. Consumption per capita of cigarettes:

1910 - 138	1957 - 3,755	1966 - 4,287
1925 - 1,285	1958 - 3,953	1967 - 4,280
1930 - 1,389	1959 - 4,073	
1935 - 1,779	1960 - 4,171	
1940 - 2,558	1961 - 4,266	
1945 - 3,449	1962 - 4,265	
1950 - 3,552	1963 - 4,345	
1955 - 3,597	1964 - 4,194	
1956 - 3,650	1965 - 4,258	



## Junior High School - Conceptual Statement VII

SAMPLE LEARNING EXPERIENCES:

Conduct a survey to determine how many people who start smoking continued to do so. What is the implication of this percentage? What were their reactions to the first cigarette?

Discuss the formation of habits and the difficulty in breaking some of them. Compare smoking to other habits of childhood, such as thumb sucking (oral satisfaction), poor posture, and nail biting.

List undesirable habits. Each student selects one habit and outlines steps involved in breaking the habit.

Discuss attempts to break the smoking habit on which newspapers and magazines have reported.

Discuss problems connected with stopping smoking. Interview adults who have tried to stop. Discuss:

- a. Techniques used (including anti-smoking drugs).
- b. Physical and psychological reactions.
- c. Success and failure rates.

Show film: BREAKING THE HABIT. Discuss the important points recommended for breaking the smoking habit.

Study information showing changes in smoking habits and suggest reasons for changes which have occurred.

RESOURCES:Books

Otto, MODERN HEALTH, p. 53

Pamphlets

Brecher, SMOKING - THE GREAT DILEMMA, pp. 23-25

ENJOY THE PLEASURES OF NOT SMOKING

FACTS FOR TEENAGERS: SMOKING, HEALTH AND YOU

PICK A PACK OF TROUBLE, Reader's Digest Reprint, June, 1968

\*SHALL I SMOKE

YOU CAN QUIT SMOKING

Film

BREAKING THE HABIT

Primarily for Teachers

ANNUAL REPORT ON TOBACCO STATISTICS, 1965, (Pamphlet)

Bernard, TOWARDS BETTER PERSONAL ADJUSTMENT, p. 88 (Book)

THE HEALTH HAZARDS OF SMOKING, p. 16 (Guide) Cleveland Public Schools

HEALTH HELPS - SMOKING AND HEALTH (Guide)

Spokane Public Schools, TEACHING GUIDE - SMOKING UNIT, p. 7 (Guide)

SMOKING AND YOUTH: RESOURCE MANUAL, p. 32 (Guide) Washington

PROBLEMS OF CHANGING ATTITUDES AND ACTIONS ON SMOKING

\*Available in quantity for distribution to students.

Junior High School

CONCEPTUAL STATEMENT: VII. The smoking habit, once established, is difficult to break.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- F. How can the individual smoker lessen or give up the smoking habit?
1. Learn about his own habit. Determine the specific attraction smoking holds for him and know when he is most likely to smoke a cigarette. This helps him avoid these situations or occasions, or substitute for them.
  2. Program for stopping should be both physical and psychological.

Senior High School

CONCEPTUAL STATEMENT: I. Chemicals in tobacco smoke cause harmful effects on the human body.

OBJECTIVES:

Knowledge (Cognitive Domain)

The student can describe the major harmful substances in tobacco smoke.

The student can associate the specific harmful substances in tobacco smoke with specific diseases.

The student is able to describe the changes in body tissues associated with the harmful substances in tobacco smoke.

The student can substantiate the harmful effects of smoking on the human body by citing findings from research studies.

The student can discuss the general nature and ultimate effect of diseases associated with smoking.

Attitudes (Affective Domain)

The student shows his desire to learn more about the harmful effects of smoking by asking questions and by doing unassigned reading on the topic.

Practices (Overt Behavior)

The student reads and evaluates up-to-date scientific sources of information on smoking and health.

OUTLINE OF CONTENT:

- A. What are some of the known harmful substances contained in tobacco smoke?
  1. Tars.
  2. Nicotine.
  3. Carbon monoxide.
  4. Nearly 300 chemicals have been identified in tobacco smoke.
    - a. Many substances, not in tobacco itself, are produced by the combustion of the tobacco.
    - b. The substances exist as gases, uncondensed vapors, and minute particles.
    - c. Many poisonous substances occur in such small amounts that they are not considered to be a problem.
    - d. The possible harmful effects of some of the substances are not known.
- B. What are some of the known harmful effects on body tissues?
  1. Studies have shown that cigarette smoking (the chemicals and heat) can paralyze and destroy the cilia (hair-like cleansing mechanism lining the bronchial tubes) and can interfere with normal production and function of mucus.
  2. Nicotine causes constriction of the blood vessels, raises systolic blood pressure, speeds up the heart rate, and decreases appetite.
    - a. Skin temperature drops slightly due to decreased blood supply in surface vessels.
    - b. Heart rate increases by 10 to 30 beats per minute and persists at the higher rate for 10 to 20 minutes after each cigarette.
    - c. Some authorities believe that a slight elevation in blood sugar is caused, which depletes the reserve energy potential.
  3. Carbon monoxide reduces the oxygen-carrying capacity of hemoglobin, temporarily decreasing the individual's endurance and efficiency.
  4. There are known carcinogens (cancer-causing compounds) in tobacco smoke. They occur in small amounts, but when the dosage is repeated hourly, daily, and yearly there is an accumulation which ultimately may lead to malignancy.

## Senior High - Conceptual Statement I

## SAMPLE LEARNING EXPERIENCES:

Students with some knowledge of chemistry can read Chapter 6 of the Surgeon General's Report, SMOKING AND HEALTH, and report to the class on the chemical and physical properties of tobacco and tobacco smoke.

Debate: "Resolved that smoking is detrimental to one's mental and physical well-being."

Invite a physician to discuss the harmful effects of smoking on various parts of the body.

Observe cilia under microscope by obtaining from a slaughterhouse fresh cilia-bearing tissue. Show pictures of tissue change illustrated in Hammond's article in SCIENTIFIC AMERICAN, July, 1962.

Borrow slides and X-rays showing damage caused by lung cancer and/or chronic respiratory diseases associated with smoking. Compare them with normal lung tissue.

Discuss the relationship that smoking might have to the five generally accepted causes of cancer:

- a. Mechanical - skin irritation, lip cancer.
- b. Chemical - tars, carcinogens.
- c. Heat - repeated overheating of the area, lip cancer, and oral cavity.
- d. Prolonged exposure to the sun.
- e. Exposure to radiation in excess amounts.

Conduct match test for emphysema. Hold lighted match 6 inches from the open mouth. Without pursing the lips, blow out the flame. A person with advanced emphysema cannot exhale normally and would not be able to extinguish the flame.

## RESOURCES:

Books

Bauer, THE NEW HEALTH AND SAFETY

Brecher, CONSUMER UNION REPORT ON SMOKING AND THE PUBLIC INTEREST

INTRODUCTION TO RESPIRATORY DISEASE (From 3rd Page)

Otto, MODERN HEALTH

Shryock, MIND IF I SMOKE?

SMOKING AND HEALTH, Surgeon General's Report

Periodicals

Anderson, "Research Report: Tobacco and Health," TODAY'S HEALTH, PARTS I AND III

"All 92 Victims Smoke," SCIENCE NEWS

Hammond, "The Effects of Smoking," SCIENTIFIC AMERICAN

"Nicotine Can Stimulate or Depress Smokers," SCIENCE NEWS

Perkins, "Chronic Respiratory Diseases - The Need for a Coordinated Approach to the Problem," AMERICAN JOURNAL OF PUBLIC HEALTH

"Springtime Fresh," TIME

Tate, "What Is It About Cigarettes?" NATIONAL TUBERCULOSIS ASSOCIATION BULLETIN

"The Smoking Women," TIME

Pamphlets

CANCER FACTS AND FIGURES, 1965-1966  
CARDIOVASCULAR DISEASES IN THE U.S.

Senior High School

CONCEPTUAL STATEMENT: I. Chemicals in tobacco smoke cause harmful effects on the human body.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- C. What diseases or disorders in man have been associated with smoking?
1. Cardiovascular diseases.
    - a. The chief cardiovascular diseases associated with smoking are coronary artery disease and strokes.
    - b. It is estimated that at least 100,000 individuals die prematurely each year from heart attacks associated with smoking.
    - c. The death rate due to heart attacks is 70% higher among smokers than among non-smokers.
    - d. Constriction of blood vessels caused by nicotine in tobacco smoke further reduces a poor blood supply associated with atherosclerosis.
    - e. Beurger's disease.
      - 1) The relationship between the aggravation of Beurger's disease and smoking has been well established.
      - 2) Heavy smoking constricts the blood vessels in the extremities. If the flow of blood is completely stopped, amputation of the foot or leg may be necessary.
      - 3) Progress of the disease usually stops when the person stops smoking and recurs when smoking is resumed.
  2. Respiratory diseases.
    - a. Emphysema.
      - 1) The lungs are enlarged due to overinflation and rupturing of the alveoli caused by accumulation of mucus.
      - 2) The most important symptom is shortness of breath.
      - 3) The victim is unable to expire air normally and unable to obtain an adequate supply of oxygen.
      - 4) Because only about one-fifth of the lung capacity is required for normal effort, extensive damage from emphysema may occur before symptoms are noted.
      - 5) There is no known cure - the damage is not reversible.
      - 6) There is an increasing disability which may last for years and terminate in death from respiratory or cardiac failure.
      - 7) Emphysema and chronic bronchitis are the second leading cause of Social Security disability payments.
      - 8) One prominent physician voiced the opinion that if he had a choice he would rather have lung cancer than emphysema because a possibility of cure exists for cancer.
      - 9) Disables one of every 14 American workers over age 45. (Seattle Post Intelligencer, Aug. 7, 1968)

## Senior High - Conceptual Statement I

SAMPLE LEARNING EXPERIENCES: (continued)

The slowing down of blood circulation can be tested with a clinical thermometer. Have the non-smoker, or someone who has not smoked for hours, hold the thermometer. Then have a smoker hold the thermometer. Smokers show a drop of about 6 degrees or more (even when using filter cigarettes).

Discuss the dangers of the following statements:

- a. "I won't inhale so that smoking won't be harmful."
- b. "I'll smoke only 3 or 4 a day."
- c. "I just want to try them and then stop."
- d. "Filter cigarettes aren't harmful."
- e. "I'll smoke only a harmless pipe or cigar."

Make posters and maintain a display of posters in various school or community locations.

Have students discuss the problem, "How can we influence others in our school not to smoke, or should we?"

Experiment to demonstrate result of smoking on pulse rate (see Appendix).

Discuss implications of the rising rate of lung cancer in women now as opposed to the past ten years.

RESOURCES: (continued)Pamphlets

CIGARETTE QUIZ

CIGARETTE SMOKING AND LUNG  
CANCER

Connecticut Thoracic Society,  
CONFERENCE ON SMOKING AND HEALTH

Curtis, SMOKING OR HEALTH

FACTS ABOUT SMOKING

LUNG CANCER AND CIGARETTES,  
Reader's Digest

McGrady, CIGARETTES AND HEALTH

\*NO IF'S - NO MAYBE'S - NO BUTTS

SMOKING: FACTS YOU SHOULD KNOW

SMOKING, HEALTH, AND YOU

\*SMOKING AND HEART DISEASE

SMOKING AND LUNG CANCER

STATEMENT OF AMERICAN CANCER  
SOCIETY ON CIGARETTE SMOKING

TO SMOKE OR NOT

\*TO SMOKE OR NOT TO SMOKE

Films

CANCER BY THE CARTON

ONE IN 20,000

SMOKING AND YOU

TOBACCO AND THE HUMAN BODY

BREATH OF AIR

EMRATTLED CELL

TIME FOR DECISION

Senior High School

CONCEPTUAL STATEMENT: I. Chemicals in tobacco smoke cause harmful effects on the human body.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- b. Lung cancer.
  - 1) Cigarette smoking is causally related to lung cancer.
  - 2) The risk of developing lung cancer increases with the duration of smoking and with the number of cigarettes smoked and decreases by discontinuing smoking.
  - 3) For non-smokers 1 out of 270 males will develop lung cancer; for individuals who smoke one pack per day, 1 out of 36 will develop lung cancer; and for two-pack-per-day smokers, 1 in 10 will develop lung cancer.
  - 4) If a smoker has stopped for a ten-year period, the risk of developing lung cancer is only about 10% more than for non-smokers. The risk gradually diminishes during this ten-year period.
  - 5) Deaths from lung cancer have increased to the level where they are approximately equal to deaths from automobile accidents - about 50,000 per year.
- c. Chronic bronchitis.
  - 1) Bronchitis is a disorder characterized by excessive mucus secretion in the bronchial tree, narrowing of the bronchial tubes, and loss of peristalsis in the tubes.
  - 2) Excessive mucus interferes with normal gaseous exchange.
  - 3) It is highly associated with smoking.
  - 4) May be controllable with medication.
- 3. Digestive system disorders.
  - a. Studies show an association between cigarette smoking and peptic ulcer.
  - b. Excessive smoking may be associated with diarrhea and/or constipation or an alternating pattern between the two extremes.
  - c. Nausea, often associated with vomiting, is by far the most common symptom related to the digestive tract.
  - d. Appetite is dulled, therefore the person might not eat properly.
- 4. Maternal smoking and infant birth weight.
  - a. Women who smoke cigarettes during pregnancy tend to have babies of lower birth weight. It is not known whether this decrease has any influence on the biological fitness of the infant.
  - b. Women who smoke have a significantly higher percentage of premature births.
  - c. The heart rate of the fetus is increased shortly after the mother smokes a cigarette.

## Senior High - Conceptual Statement I

SAMPLE LEARNING EXPERIENCES: (continued)RESOURCES: (continued)Primarily for Teachers

INTRODUCTION TO RESPIRATORY DISEASE

Johns, HEALTH FOR EFFECTIVE LIVING  
(book)Mausner, BEHAVIORAL ASPECTS OF  
SMOKING (Book-Monograph)SMOKING AND HEALTH RESOURCE BOOK. IT  
(Guide) PennsylvaniaSpokane, TEACHING GUIDE - SMOKING  
UNIT (Guide)SMOKING AND YOUTH: LEADERS' MANUAL,  
(Guide) WashingtonSMOKING AND YOUTH: RESOURCE MANUAL  
(Guide) WashingtonTEACHING ABOUT SMOKING AND HEALTH  
(Guide) Illinois\*Available in quantity for  
distribution to students.



Senior High School

CONCEPTUAL STATEMENT: 1. Chemicals in tobacco smoke cause harmful effects on the human body.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"><li>5. Other diseases for which a relationship with smoking has been established.<ul style="list-style-type: none"><li>a. Oral cancer.</li><li>b. Cancer of the larynx.</li><li>c. Cancer of the esophagus.</li><li>d. Cancer of the bladder in males.</li></ul></li></ul> |
|--|--|

Senior High School

CONCEPTUAL STATEMENT: II. Psychological and social factors contribute to the starting and continuation of the smoking habit.

OBJECTIVES:

Knowledge (Cognitive Domain)

The student can discuss reasons why laws and regulations have been established to control smoking.

The student can show evidence of the nature and extent of the smoking habit in the United States.

The student can discuss reasons why people smoke.

The student can evaluate the reasons given by people for smoking.

The student can analyze and interpret reports in the literature concerning the psychological and social factors related to smoking.

The student can discuss the common courtesies which smokers should follow in smoking.

Attitudes (Affective Domain)

The individual who smokes shows consideration for other persons by being courteous in his smoking practices.

The student shows his interest in learning more about the reasons why some persons smoke and others do not by his participation in class activities on this topic.

OUTLINE OF CONTENT:

- A. What are the laws and regulations regarding smoking?
1. Minimum age for legally purchasing tobacco products.
  2. Since January 1, 1966, all cigarette packages bear the legend, "Caution, cigarette smoking may be hazardous to your health."
  3. Intent behind the laws and justifications for legal control.
  4. Responsibility of individuals to conform with the law.
    - a. The purchaser.
    - b. The seller.
  5. Suggested additional laws such as an indication of tar and nicotine content on package.
- B. What is the extent of the smoking habit in the U.S.?
1. Pre-teen-agers: An increasing number are experimenting with smoking.
  2. Teen-agers:
    - a. Each day of 1965, an estimated 4,500 teen-agers started smoking.
    - b. It has been estimated that one out of every three high school students is a smoker.
    - c. By the senior year in high school, an estimated 40% to 50% of the students are smoking.
    - d. The Surgeon General's report states the belief that most persons are exposed to their first smoking experience from the years of early teens to the ages of 18 to 20.
  3. Adults:
    - a. More than half of the adult males and approximately one-third of the adult females in the U.S. smoke regularly.
    - b. The Surgeon General reports that nearly one out of four adult men is an ex-cigarette smoker - an estimated 18 million persons.
    - c. The percentage of physicians who smoke has decreased from 69% to 22% over a 10-year period.
    - d. A rapid increase in number of female smokers during the past decade has occurred.
- C. What is the relationship between achievement and smoking?
1. The athlete who smokes has a slower reaction time, less endurance, and reduced efficiency.
  2. In general, the students who smoke are less active in sports, have poorer grades, and have lower academic goals.
- D. What are some characteristics more prominent among smokers than non-smokers? (SMOKING AND YOUTH, Resource Manual)

SAMPLE LEARNING EXPERIENCES:

Determine the laws and regulations regarding smoking in the school and community. Discuss the reasons for the controls and the degree of compliance with them. Recommend additional controls which might be considered.

Conduct a survey to determine the percentage of students in the class who smoke or do not smoke and the smoking habits of their families and friends; compare findings with other reported statistics.

Locate reports on studies showing the psychological and social factors which influence smokers. Have the findings presented to the class for discussion.

Invite coach and counselor to present talk on relationship of smoking and achievement in athletics and academic success.

Compare opinions as to why the smoker generally achieves on a lower level than the non-smoker. Discuss if smoking is the cause or a symptom.

List and evaluate the many techniques used to appeal to youth in smoking advertisements.

Collect statements from TV advertising of cigarettes. Through pantomime, describe the "effect" you get when you smoke "Brand X" cigarette. (Attack the image of smoking and maturity being synonymous.)

Write a paper: "The decision to smoke is one of the vital decisions of life because it is so final."

Impromptu speech: "No one ever started smoking because it tasted good."

Debate: "Smoking is a badge of freedom for a teen-ager."

List the disadvantages and the advantages of smoking and discuss the merits of each group of statements.

Prepare and use a questionnaire to investigate reasons for smoking or not smoking.

RESOURCES:Books

Brecher, CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST

Packard, THE HIDDEN PERSUADERS

Shryock, MIND IF I SMOKE?

Periodicals

Blum, "An Ode to the Cigarette Code," HARPER'S MAGAZINE

"Cigarette Advertising," CONSUMER REPORTS

Horn, "Behavioral Aspects of Cigarette Smoking," JOURNAL OF CHRONIC DISEASES

"Cigarette Smoking Among High School Students Related to Social Class and Parental Smoking Habits," NEW ENGLAND JOURNAL OF MEDICINE

Johnson, "Some Relationships of Smoking to Teen-agers' Achievement," WASHINGTON EDUCATION

"New Tar Derby," NEWSWEEK

Rogers, "Smoking and High School Performance," AMERICAN JOURNAL OF DISEASES OF CHILDREN

"Smoking and Health," PUBLIC HEALTH REPORTS

"Special Issue - Cigarette Smoking," JOURNAL OF THE CALIFORNIA SCHOOL HEALTH ASSOCIATION

"Springtime Fresh," TIME

Senior High School

CONCEPTUAL STATEMENT: II. Psychological and social factors contribute to the starting and continuation of the smoking habit.

OBJECTIVES: (continued)

OUTLINE OF CONTENT: (continued)

The student presents factual information about smoking to other persons when he has the opportunity.

Individuals who smoke are considerate of other persons.

1. No clear-cut personality trait identifies the smoker, but there seems to be an association between smoking and personality extremes.
  2. A higher percentage of smokers live in cities than in farm country.
  3. A higher percentage of smokers have parents who smoke:  
If one parent smokes, 25% of the children smoke;  
If two parents smoke, 33% of the children smoke.
  4. Social groups with low smoking rates (professions, farmers, and older people) are likely to quit smoking more readily.
  5. Inhaling may be more prevalent among those with personality problems.
- E. What are some reasons why people smoke?
1. Striving for adolescent maturity.
  2. Curiosity or experimentation.
  3. For social stimulation.
  4. To satisfy self-esteem and status needs.
  5. Striving for peer approval.
  6. Cultural values tend to have a strong influence on smoking behavior - a permissive cultural climate tends to foster while a rejecting or outright prohibitive one tends to inhibit smoking.
  7. Influenced by advertising. (See Junior High Guide - Conceptual Statement III.)
  8. Significantly more smokers in families where both parents smoke than in families where neither parent smokes.
  9. Cigarettes are readily available at home, from cigarette machines, and from a variety of stores, including stores where foods are purchased.
- F. What are some reasons why individuals do not smoke?
1. Many accept evidence that smoking is harmful.
  2. Many abstain for religious reasons.
  3. Many abstain for athletic reasons.
  4. Many jobs require that a person not smoke.
  5. Many people consider smoking as a socially undesirable habit.
  6. Many choose not to smoke out of respect for the family.
  7. Some do not smoke due to doctor's request because of physical illness.
  8. Some consider it a psychological weakness.

## Senior High - Conceptual Statement II

SAMPLE LEARNING EXPERIENCES: (continued)

Conduct an informal, unstructured discussion on "Should I smoke?" Consider (a) whether persons who do not smoke lose the respect and friendship of their peers; (b) whether daring to voice an opinion is a sign of leadership; (c) whether there is a danger in consistently going along with the crowd; and (d) whether courage to express conviction bespeaks maturity.

React by individuals on a panel to: "The more mature attitude measures life's values at long range. If smoking really shortens life or if the use of cigarettes actually predisposes to illness, then a person with stable character will forego this indulgence in order to pursue his life at its best."

Review student leader testimonials: Ask several prominent leaders of your school to write out their philosophy on smoking (Why I choose not to smoke.). Print and distribute their ideas. For examples, see the Spokane TEACHING GUIDE - SMOKING UNIT.

Select a committee of smokers and non-smokers to collect ideas and opinions on smoking courtesies, to evaluate them, and organize them into a code.

Develop a bulletin board of humorous sketches depicting common discourteous practices of smokers.

RESOURCES: (continued)Pamphlets

CIGARETTE QUIZ  
CIGARETTE SMOKING AND LUNG CANCER

Curtis, SMOKING OR HEALTH

FACTS ABOUT SMOKING

McGrady, CIGARETTES AND HEALTH

Miller, REPORT TO CONSUMERS ON AMERICAN CIGARETTES

\*SHALL I SMOKE?

Sister Mildred Marie, ANTI-CIGARETTE SMOKING CAMPAIGN

SMOKING, HEALTH, AND YOU

TEEN-AGE CIGARETTE PURCHASING AND SMOKING HABITS IN THE U. S. A.

TO SMOKE OR NOT

\*TO SMOKE OR NOT TO SMOKE?

\*U. S. GOVERNMENT WANTS YOU TO KNOW

Films

SMOKING AND YOU

Primarily for Teachers

PROBLEMS OF CHANGING ATTITUDES AND ACTIONS ON SMOKING

SMOKING AND HEALTH RESOURCE BOOKLET (Guide) Pennsylvania

SMOKING AND YOUTH: LEADERS' MANUAL (Guide) Washington

SMOKING AND YOUTH: RESOURCE MANUAL (Guide) Washington

Spokane, TEACHING GUIDE - SMOKING UNIT (Guide)

WILL YOUR STUDENTS SMOKE? (Guide) Stark County, Ohio

\*Available in quantity for distribution to students

Senior High School

CONCEPTUAL STATEMENT: II. Psychological and social factors contribute to the starting and continuation of the smoking habit.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- G. What are the common courtesies which smokers should practice?
1. Ask before smoking in another person's home or presence.
  2. Use ash tray instead of floor for stamping or depositing cigarettes, butts, matches and empty packages.
  3. Observe "No Smoking" restrictions.
  4. Practice restraint in controlling smoke around others in a group.
  5. Be careful where and when one smokes so as to not influence younger persons to smoke.
  6. Smokers should insist on paying for damage done to a hostess' household furnishings by cigarettes.

Senior High School

CONCEPTUAL STATEMENT: .II. Control of the use of tobacco products has extensive economic and political implications in the United States.

OBJECTIVES:OUTLINE OF CONTENT:Knowledge (Cognitive Domain)

The student can compute the cost of tobacco products to an individual or a family.

The student can present evidence against the economic arguments used to defend the continued support of the tobacco industry.

The student can make an effective comparison between the values given in favor of smoking and the value of purchases which could be made with the money saved if a person or persons in a family would stop smoking.

Attitudes (Affective Domain)

The student shows his concern for the expenditure of money on tobacco products by informing other persons of the amount being spent.

Practices (Overt Behavior)

The student who smokes can identify the amount of money he spends on tobacco products and smoking accessories.

- A. How do smoking habits vary with individuals in different economic levels in our society?
- B. How much does the smoking habit cost?
  1. Cost of products directly.
    - a. Americans spent more than \$8.5 billion for tobacco products in 1965.
    - b. See Junior High Guide for data on monetary cost of smoking different amounts for varying periods of time - Conceptual Statement VI.
    - c. The cost of accessories such as matches, pipes, lighters, and ashtrays.
  2. Cost of damage to clothes and household items such as rugs and furniture as a result of being burned by cigarettes or other tobacco products.
  3. Cost of property damage to homes or forests being burned.
  4. Cost of accidents due to drivers having attention diverted by smoking while driving.
  5. Cost of medical care for injuries due to fires or accidents indicated in items 3 and 4 above.
  6. Cost resulting from loss of income due to injury or premature death associated with smoking.
  7. Cost associated with higher insurance premiums or health and life insurance.
- C. How does the economic contribution of the tobacco industry affect the local and national economy?
  1. More than \$2.1 billion was paid in Federal taxes between July 1964 and June 1965.
  2. More than \$2.4 billion was paid in local and state taxes in the United States during 1964.
  3. Cash receipts from tobacco crops were 39.6% of the total farm commodities income in North Carolina in 1965.
  4. In 1965 approximately 3% of the cash receipts from farm commodities in all states in the United States came from tobacco crops.
  5. State taxes on cigarettes range from no tax in two states to 11¢ per pack in Washington and Texas.
  6. Approximately 750,000 farm families are supported by tobacco farming.
  7. Tobacco companies spent approximately \$250 million for television advertising during 1965 - add to this the radio, periodicals, billboards, and other communication media expenditures.
  8. Uncounted persons such as salesmen, advertising personnel, transportation workers, and others depend upon the tobacco industry for all or part of their income.

## Senior High - Conceptual Statement III

SAMPLE LEARNING EXPERIENCES:

React to the theory that the people of the lower socio-economic levels smoke more and quit smoking less frequently. What might the reason be and what is the implication?

Compare and contrast the money spent annually in the U. S. on tobacco, on education, and on the individual's personal expense for school.

Have student compute and evaluate the cost of his or her own smoking habit per week, month, and year. What other pleasures could have been purchased?

Estimate to date the cost of his or her smoking habit; the cost of a parent's habit.

Interview of local police and fire department personnel to determine effect of smoking habit in relation to fire hazards. Which aspects of the habit are causing the fires?

Speaker: Life insurance agent - "How does smoking affect you as a risk to insurance companies?"

Contact business managers of local TV stations to determine how much advertising time is devoted to tobacco, and how much (%) of the TV income from advertising is a result of this tobacco advertising.

Contrast the smoking habit cost to the taxpayer with the loss of revenue from tobacco if the anti-smoking campaign were completely successful (no one smoking); i.e., tax savings of public assistance in hospital and doctor bills; assistance to widows and families; fire prevention, etc. vs. tax advertising revenues; allied business dependence and sales.

Role-play: Local, southern tobacco farmers heckling the speaker, a southern senator, who supported a bill in Congress which condemns tobacco as a definite health hazard.

RESOURCES:Books

Brecher, CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST

Packard, THE HIDDEN PERSUADERS

Shoyock, MIND IF I SMOKE?

Periodicals

ANNUAL REPORT ON TOBACCO STATISTICS

Blum, "An Ode to the Cigarette Code," HARPER'S MAGAZINE

"Non-Smokers Given Lower Life Insurance Rates," SCIENCE NEWS

"Springtime Fresh," TIME

"Uncle Sam: Tobacco Salesman," CONSUMER REPORTS

Pamphlets

Brecher, SMOKING - THE GREAT DILEMMA

CANCER FACTS AND FIGURES, 1966

CIGARETTE SMOKING AND LUNG CANCER

Curtis, SMOKING OR HEALTH

INSURANCE FACTS, 1965

Primarily for Teachers

"Cigarettes and Atherosclerosis," SCIENTIFIC AMERICAN (Periodical)

Mausner, BEHAVIORAL ASPECTS OF SMOKING (Book-Monograph)

SMOKING AND HEALTH RESOURCE BOOKLET (Guide) Pennsylvania

SMOKING AND YOUTH: LEADERS' MANUAL (Guide) Washington



Senior High School

CONCEPTUAL STATEMENT: III. Control of the use of tobacco products has extensive economic and political implications in the United States.

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- D. What political problems are involved in attempts to control the tobacco industry?
1. Many states list tobacco products as a major factor in their economy - six states report tobacco as contributing 14% or more of their income from farm commodities.
  2. Elected lawmakers are reluctant to support "anti-smoking" legislation as a representative of the people who depend upon the tobacco industry for their income.
  3. Some elected government officials depend upon the tobacco industry for a large measure of their support.
  4. Some people believe that smoking and the consequences of smoking are within the domain of individual rights and thus they would not support legislation restricting sales, advertising, or consumption of tobacco.
  5. Tobacco purchases from foreign countries and sales to foreign countries may affect some relationships.

## Senior High - Conceptual Statement III

SAMPLE LEARNING EXPERIENCES:RESOURCES: (continued)

SMOKING AND HEALTH: RESOURCE  
MANUAL (Guide) Washington

Spokane, TEACHING GUIDE - SMOKING  
UNIT (Guide)

WILL YOUR STUDENTS SMOKE? (Guide)  
Stark County, Ohio

\* Available in quantity for  
distribution to students

CONCEPTUAL STATEMENT: IV. Individuals can quit smoking!

## OBJECTIVES:

## OUTLINE OF CONTENT:

Knowledge (Cognitive Domain)

The student can list the factors which make it difficult for some persons to stop smoking.

The student can provide evidence to support reasons why an individual should stop smoking.

The student can cite evidence to show that some individuals are breaking the smoking habit.

The student can explain the reasoning behind methods which are being used to help individuals break or change the smoking habit.

The student can suggest helpful ideas for continuing to be an ex-smoker.

Attitudes (Affective Domain)

The individual who smokes shows an appreciation for the feelings of non-smokers by his smoking behavior.

The student shows that he recognizes the difficulty of and the need for breaking the smoking habit by cooperating with individuals who are attempting to do so.

The student who smokes shows his sincere desire to stop by seeking the help of other persons if he is unable to break the habit by himself.

- A. What are some of the factors which add to the difficulty of breaking the smoking habit?
  1. Social pressures due to people around who smoke.
  2. Readily available supply of cigarettes.
  3. Something to do to fit in when in a group.
  4. Identification with individuals whom the smoker respects or looks up to.
  5. Serves the need of some persons as an oral satisfaction.
  6. The possibility that substances in tobacco smoke are addicting. Some difference of opinion among authorities. World Health Organization defines smoking as habituation rather than addiction.
  
- B. What are some valid reasons for stopping smoking?
  1. Health reasons - immediate and long range. Smoking is a threat to feeling one's best. Surveys show this to be the most important reason given for stopping.
    - a. To eliminate a persistent smoker's cough.
    - b. To decrease the risk of developing lung cancer, emphysema, chronic bronchitis, coronary disease, or other diseases associated with smoking.
      - 1) Estimated that one pack per day increases the risk of a heart attack by 70%.
      - 2) A heart specialist estimates that it would require an 80-pound gain in weight by a 160-pound man to bring his health risk from overweight to the level of his health risk from smoking. (LIVE WITHOUT CIGARETTES).
      - 3) See Conceptual Statement I, Senior High School Guide, on smoking and its effect on health for additional evidence.
    - c. To increase one's endurance and body efficiency.
  2. Economic - money spent on tobacco can be spent more effectively on family, home, and personal needs.
  3. Safety reasons.
    - a. Fire danger to home, business, and forests.
    - b. Accidents due to being distracted by smoking while driving.
  4. Effect on others. Smoking has socially undesirable by-products:
    - a. Bad breath.
    - b. Odor on clothes and home furnishings.
    - c. Cigarette residue - butts, ashes, matches, stains, and smoke.
  5. Self-esteem - to satisfy a need to identify oneself with leaders in the community who do not need support from smoking. Strong conviction and practice by individuals such as doctors, parents, and teachers influence many persons to quit smoking.
  6. To demonstrate maturity by being "captain of my ship."

## Senior High School - Conceptual Statement IV

SAMPLE LEARNING EXPERIENCES:

Prepare for an overview of the smoking problem. Develop the overview by having small group discussions on the following topics and summarize by total class discussion:

Why do people smoke?

When do people begin smoking?

Are smokers different than non-smokers?

Why do people continue to smoke after they learn that smoking is detrimental to health?

Develop a bulletin board around the theme:

"The most essential factor in breaking the smoking habit is to develop the desire to stop."

Write a paper explaining why you would not want a young friend to start smoking.

Invite a physician to discuss health reasons for not smoking.

Use the data from the study of the health aspects of smoking to establish sound reasons for individuals to break the smoking habit.

React and discuss in the class the following: "I enjoy smoking and it is my business alone if I choose to continue."

Follow up on the discussion by having some students interview one or both parents on the effect of the premature loss of the other parent as a result of death due to disease associated with smoking. Topics should include:

Loss of income and effect on standard of living.

Cost of medical care.

Personal loss to spouse and children of guidance and companionship of the parent.

Review and re-evaluate the original discussion in light of findings from the interviews.

RESOURCES:Books

Brecher, CONSUMER UNION REPORT ON SMOKING AND THE PUBLIC INTEREST

Shryock, MIND IF I SMOKE

Periodicals

Friedman, "I Choose Not to Smoke," NURSING OUTLOOK

Guthrie, "Smoking and Health . . . One Year Later," JOURNAL OF SCHOOL HEALTH

Horn, "Behavioral Aspects of Cigarette Smoking," JOURNAL OF CHRONIC DISEASES

"Is There a Best Way to Stop Smoking?" GOOD HOUSEKEEPING

Jensen, "Report of the 1965 Smoking Survey: Lincoln Public Schools - Senior High Schools," JOURNAL OF SCHOOL HEALTH

McFarland, "Lifeline for Ex-Smokers," NURSING OUTLOOK

Johnson, "Some Relationships of Smoking to Teenagers' Achievement," WASHINGTON EDUCATION

Waters, "The Man Who Wrote His Own Obituary," READERS DIGEST

\*A Do It Myself Chart For Breaking The Cigaret Habit

Pamphlets

CANCER FACTS AND FIGURES, 1968

CIGARETTE SMOKING AND HEALTH

CIGARETTE SMOKING AND LUNG CANCER

Curtis, SMOKING OR HEALTH

\*Available in quantity for distribution to students.

CONCEPTUAL STATEMENT: IV. Individuals can quit smoking!OBJECTIVES: (continued)Practices (Overt Behavior)

Individuals who smoke quit.

Individuals who cannot quit smoking change their smoking habits to reduce the threat to their health.

OUTLINE OF CONTENT: (continued)

- C. What evidence do we have that indicates smokers can and do quit smoking?
1. A national survey of physicians showed that 22% of the doctors now smoke compared with 69% ten years ago.
  2. The American Cancer Society reports that one in four adult males in the United States is an ex-smoker - 18 million.
  3. "Withdrawal clinics" are becoming more popular. Some Swedish clinics reported 3 or 4 patients were ex-smokers. Some British clinics reported 40% to 70% success. Some American clinics reported 50% success. The regression rate, or return to smoking, has been high and the long-range effect of programs is not known.
  4. In 1966, the American Cancer Society reported that there was a growing tendency of youngsters to postpone the habit.
- D. What are the choices for change which a smoker can make?
1. To quit abruptly.
  2. To gradually taper off and eventually quit. Freud has commented that it is easier to quit completely than to cut down gradually.
  3. To reduce the threat by changing smoking habits.
- E. What are some of the methods being experimented with to help people break or change the smoking habit?
1. Education - a wide array of factual information and different methods of presentation concerning the threat of smoking to health are provided to help the individual make his decision.
  2. Drugs - generally intended to make the smoking distasteful to the smoker. Doctor's supervision is recommended.
  3. Group therapy.
    - a. A wide variety of supportive techniques are being attempted.
    - b. The Philadelphia Plan (LIVE WITHOUT CIGARETTES).
    - c. Dr. Wayne McFarland's "Five Day Plan" ("I Choose Not to Smoke," NURSING OUTLOOK).
    - d. More research needed to determine effective programs.
  4. Individual techniques suggested as aids.
    - a. Computing the cost and comparing the benefits with other possible purchases which could be made.
    - b. Temporarily avoiding situations which "called for smoking in the past" such as: newspaper-cigarette, coffee-cigarette, card playing-cigarette, cocktail-cigarette, general boredom-cigarette.
    - c. Substituting activities which keep hands busy and/or activities which provide oral satisfaction (gum chewing and snacks).

## Senior High School - Conceptual Statement IV (continued)

SAMPLE LEARNING EXPERIENCES:

Invite a psychologist to speak to the class on aspects of the smoking habit and how to break it.

Investigate through library research current reports of programs for helping individuals to break the smoking habit. Report findings to the class or post on a specified area of the class bulletin board.

Role-play and then discuss:

A father and mother who insist that their daughter must not smoke.

Four students on a double date- one of four is a non-smoker who resists the persuasion to try his first cigarette.

A senior student is advising a sophomore friend to not begin smoking.

Write individual reports after independent study or give oral report on self-chosen topics which might include:

Cigarette advertisers make it difficult to stop - or do they?

To smoke or not to smoke - an important decision! Pros and cons.

Can I quit?

Do I need a tension outlet? Why?

How strong is the smoking habit?

How should I set about breaking the smoking habit?

Ask for volunteers who smoke to try various methods of quitting to test the success or failure of methods with some individuals. Have volunteers keep a daily record of problems they encounter and periodically have them exchange ideas. Have class consider the problems they encounter and periodically have them exchange ideas. Have class consider the problems and ways to help volunteers achieve success. (Check with physician if the procedure might involve a health hazard).

RESOURCES:Pamphlet (continued)

FACTS ABOUT SMOKING

Miller, REPORTS TO CONSUMERS ON AMERICAN CIGARETTES

\*NO IF'S - NO MAYBE'S - NO BUTTS

SAMPLE PRESENTATIONS ON SMOKING AND HEALTH (Guide)

SMOKE BRAKE

YOU CAN QUIT SMOKING

Films

CANCER BY THE CARTON

ONE IN 20,000

WHO ME?

Primarily for Teachers

LIVE WITHOUT CIGARETTES (Guide)

SMOKING AND HEALTH (Guide)

SMOKING AND HEALTH RESOURCE BOOKLET (Guide)

SAMPLE PRESENTATIONS ON SMOKING AND HEALTH (Guide)

Spokane, TEACHING GUIDE - SMOKING UNIT (Guide)

WILL YOUR STUDENTS SMOKE? (Guide)

\*Available in quantity for distribution to students.

CONCEPTUAL STATEMENT: IV. Individuals can quit smoking!

OBJECTIVES:

OUTLINE OF CONTENT: (continued)

- d. Dr. Hayden Mee, clinical research psychologist at the University of Oregon, reported preliminary success with holding the breath each time the individual felt like smoking. The goal was 30 seconds. Preliminary reports indicated that as little as three weeks was enough to eliminate the habit. (Further testing is needed to determine effectiveness.)
- e. Reducing the threat by cutting down the intake of harmful substances.
  - 1) Delaying tactics and suppressing thoughts of smoking by turning thoughts away from and/or eliminating smoking when the need is least.
  - 2) Substitute pipe or cigars for cigarettes.
  - 3) Using filters or selecting cigarettes which produce smoke with less tar and nicotine.
  - 4) Smoking less of each cigarette - the shorter the butt the greater the concentration of harmful substances in the smoke.
  - 5) Avoiding inhaling which is a major threat to health due to the increased amount of harmful substances in contact with body tissues.
- F. What are guidelines for continuing to be an ex-smoker?
  - 1. Reaffirm your conviction to not smoke by exchanging ideas with other successful ex-smokers.
  - 2. Read valid, current literature on the harmful effects of smoking.
  - 3. Seek help in relieving tension, frustration, and boredom.
  - 4. Make it known to friends, relatives, and associates that you do not smoke (gifts, offers of cigarettes, etc.)
  - 5. Assume responsibility for offering your assistance in educating other persons about the harmful effects of smoking.
  - 6. Set goals for yourself in terms of your conviction to stop smoking.
  - 7. Assist other individuals who are in the process of breaking the habit.

## Senior High School - Conceptual Statement IV (continued)

## SAMPLE LEARNING EXPERIENCES:

## RESOURCES:

Survey the availability of, and claims made, for drugs to help persons quit smoking. (Check with physicians and pharmacists, look on the drug store shelves, read advertisements in newspapers and magazines.)

List successful efforts by class members, friends, or parents to quit smoking. Determine the methods which appeared to be most successful and attempt to determine why.

Discuss the possibility and desirability of reducing smoking through legislation, increased taxation, warnings on labels and wrappers, more rigid control of vending machines, health education, and any other means.

Develop a student leader panel or panels to present their views to junior high school students or other groups. Select leaders who are well known to junior high school students (athletes, student body officers, award winners). For guide lines in organizing and conducting the panels see Spokane Public School Guide on Smoking, Part IV - Supplement. Recommendations for panel presentations include:

Have a junior high school leader appear with the panel to introduce the participants.

Following the panel discussion, ask the students to discuss the views presented when they return to their classrooms and write a paper on their reaction to the program.

Have student newspapers cover the presentations and report the panel's comments to their readers.

Encourage parent-teacher groups and other groups to schedule the panels for meetings.

Arrange for appearance of the panel on educational television if available.



## EXIERIMENT 1

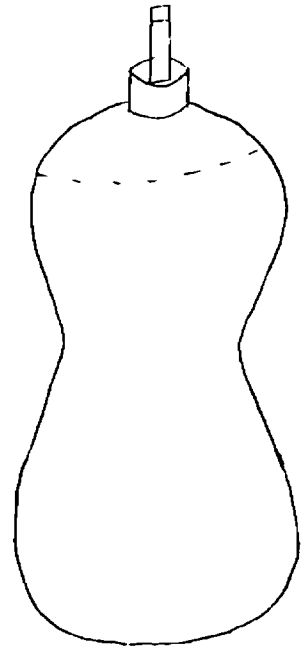
## SIMPLE SMOKING MACHINE

Purpose: To show the amount of tar that is in tobacco smoke.  
 To compare the amount of tar that is in filter and non-filter cigarette.  
 To show the amount of smoke that may linger in an individual's lungs.  
 To demonstrate the bad odor of exhaled air containing smoke.

Equipment: plastic soap container or other empty plastic container  
 (transparent, if possible).  
 ball point pen barrel or other tubing approximately the  
 size of cigarette.  
 cotton.  
 cigarettes - filter and non-filter.

Procedure:

1. Rinse the container thoroughly.
2. Make an opening in the cap of the container to fit the tubing into the cap.
3. Place the tubing in the opening and seal tight with cement or clay if needed.
4. Insert loosely packed cotton ball into tubing.
5. Insert cigarette into open end of tubing.
6. Press firmly on the plastic container to force air out before lighting the cigarette, then proceed with slow and regular pumping action.
7. Withdraw cotton from tubing to show accumulation of tar.
8. Pass container around for individuals to smell and to observe that smoke continues to be expelled for a period of time.



## EXPERIMENT 2

Purpose: To demonstrate that tars are inhaled into the mouth and lungs of a cigarette smoker. Of particular interest is the difference in the amount of tar in the inhaled smoke and in that smoke which is exhaled.

Equipment: 1 white handkerchief  
1 smoker

Procedure:

1. Have the smoker inhale from a lighted cigarette, making every attempt to hold the smoke just in his mouth without allowing it to go to the lungs. As rapidly as possible, after inhaling the smoke, place the clean handkerchief over the mouth and stretched as firmly as possible. Blow the smoke out through the handkerchief. Note stains on handkerchief.
2. Have the candidate inhale once more only this time have him allow the smoke to go well into the lungs. Repeat the use of the cigarette over the mouth while exhaling. Note that the second stain is lighter than the first stain. The difference between the two stains theoretically represents the amount of tar which remains in the lungs after each puff on a cigarette.

## EXPERIMENT 3

Purpose:

In the smoke delivered from a cigarette there are about 300 substances. Most of them are not readily recognized by name, but a few such as lead, arsenic, cyanide, nicotine, formaldehyde, and carbon monoxide are well known. The purpose of this experiment is to demonstrate the effect cigarette smoke can have on fish when they are compelled to absorb the chemicals in cigarette fumes.

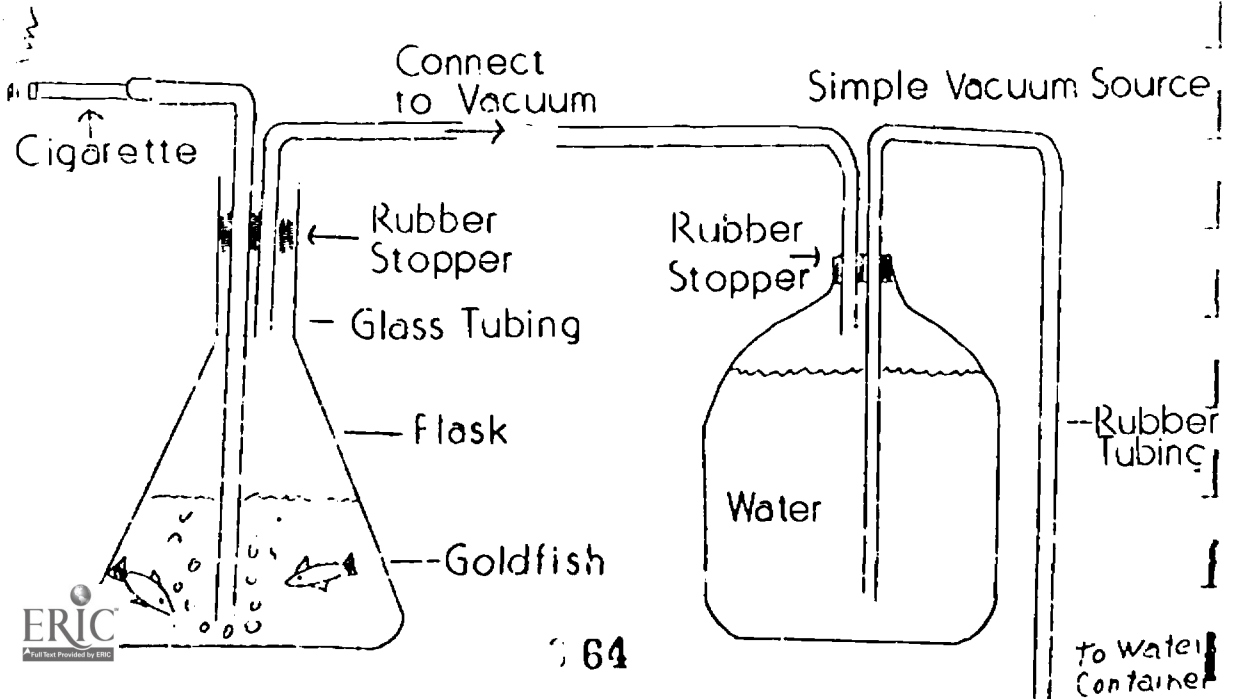
Needed Equipment:

2 or 3 goldfish  
glass tubing  
water  
rubber stopper with glass tubing holes

500 cc flask  
cigarettes  
a vacuum source

Procedure:

1. Begin siphon by drawing some water into your mouth from the rubber tubing. As long as the water flows a vacuum will be sustained.
2. As the vacuum is applied, light the cigarette, and the smoke will bubble through the water containing the fish.
3. By the time three to ten cigarettes have been consumed, the toxic agents in the smoke, primarily nicotine, should begin to affect the fish causing them to lose their equilibrium.
4. As soon as the fish lose their equilibrium and begin to roll to one side, they should be removed from the water and placed immediately in fresh water. If this is not done promptly, this experiment will be fatal to the fish.



## EXPERIMENT 4

Purpose:

To demonstrate the effect that smoking has upon the heart rate.

Equipment:

wrist watch      1 smoker      cigarettes

Procedure:

It is recommended that students do this experiment at home with some adult who smokes and record their findings.

1. The arterial pulse, taken at the wrist, is an accurate indication of the heart rate. One can take the pulse of his patient by placing the two middle fingers of the right hand on the thumb side of the wrist of the patient (see diagram).

2. The patient's pulse should be taken two or three times to establish a base line accuracy.

3. In each instance, record the pulse rate as the number of pulsations felt per minute.

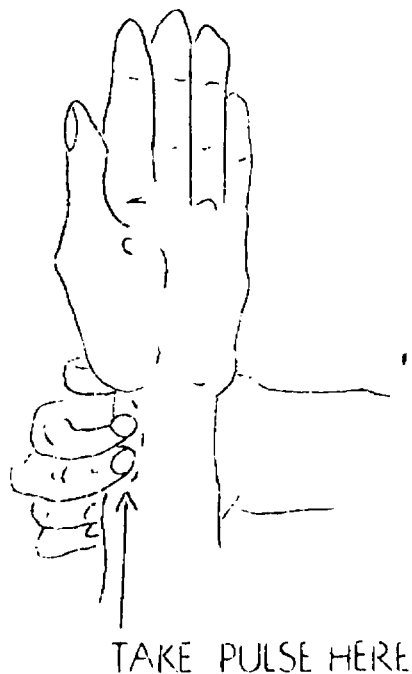
4. Have your patient light a cigarette, then take the pulse as he has concluded the third or fourth puff.

5. When the cigarette is finished, take the pulse every fifteen minutes until the pulse rate returns to normal.

6. Chart your findings on a graph and determine how many extra heart beats one pack of cigarettes causes the patient.

7. Since with each beat the heart pumps approximately 79 cc of blood, calculate the extra volume of blood that is pumped by the heart induced by smoking one package of cigarettes.

The apparent conclusion is that smoking puts an extra unnecessary load upon the heart and such a burden will, in the long run, shorten life.



## DEMONSTRATION OF THE EFFECT OF EMPHYSEMA

Equipment: Bell jar  
 Forked glass tubing  
 One-holed rubber stopper  
 Rubber sheet or membrane  
 Balloons - similar size and elasticity

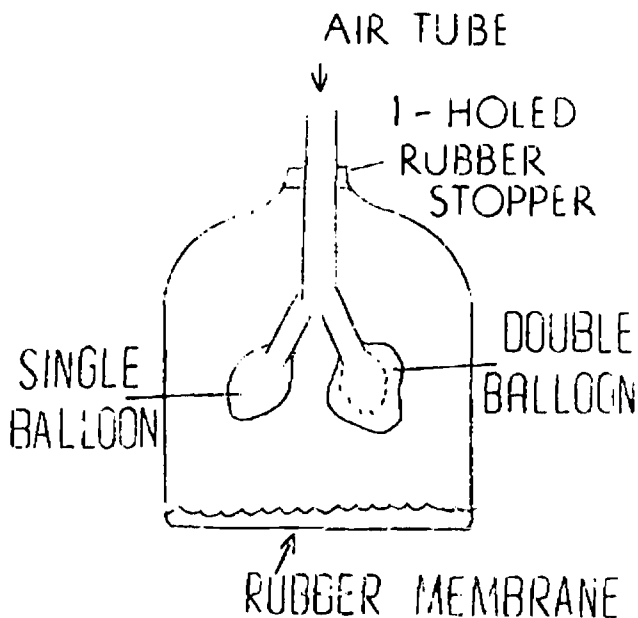
Blow up one balloon and have it remain inflated for a day or two. At the time of the demonstration, deflate the balloon. Note that it remains enlarged or stretched.

Insert an unused balloon into the used one and note the space or air pocket surrounding the new balloon.

Attach a new single balloon to one of the ends of the forked glass tube and the double balloon (new balloon inside of one that had been inflated for a day or two) on the end of the other tube. Fasten a rubber sheet or membrane across the bottom of the bell jar to simulate a diaphragm (the breathing muscle which separates the abdominal cavity from the chest cavity).

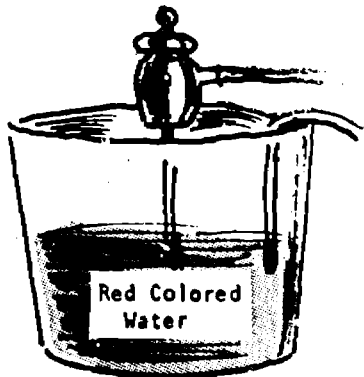
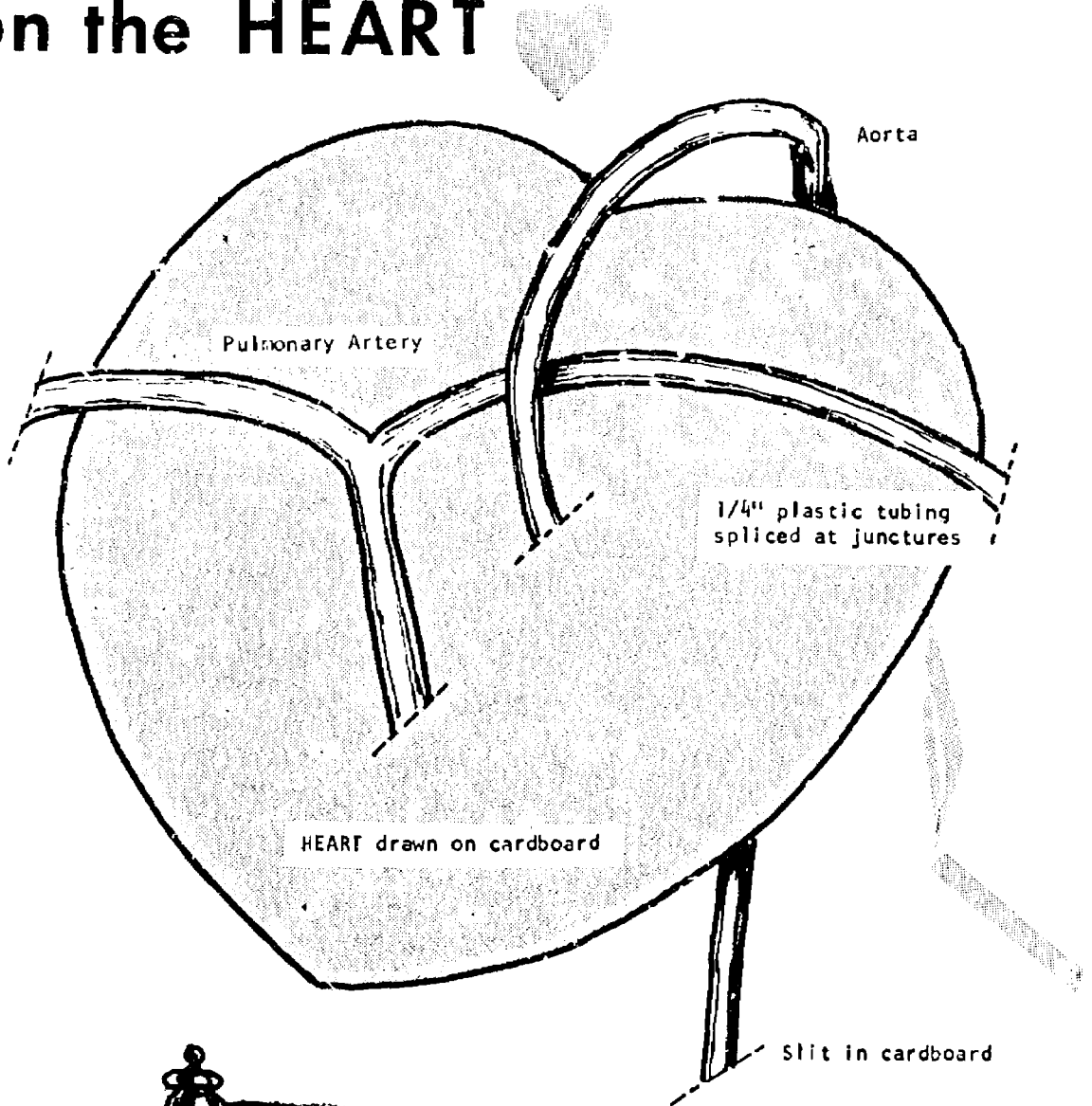
Pull down on the center of the rubber membrane and observe the balloons fill with air. Note the effect of the double balloon on amount of expansion which takes place. Push the rubber membrane back up into the jar a short ways to simulate exhaling. Note the difference in the deflation of the "lungs."

The changes which take place during the filling and emptying of the balloons may be compared to respiration. If both of one's lungs are functioning properly, they inflate and deflate in a normal manner. If the alveoli have been damaged, as in emphysema, air pockets form in the lungs. The amount of surface available for exchange of oxygen and carbon dioxide is drastically reduced and the individual has difficulty in obtaining sufficient amounts of oxygen in his blood stream to carry on normal activities.



# Demonstration of CIGARET effect on the HEART

62a



**DIRECTIONS:** Plastic tubing is mounted on cardboard following major arteries and veins. These go through cardboard at slits and terminate in 2 tubes.

One plastic tube attached to large plastic pump (such as used for detergent, etc.). Other tube is the return. The display is operated by one student while the other tells of the effect of smoking on the heart. Very dramatic!

(Cardboard 18" X 24")

MR. TOBACCO ON TRIAL

## Characters:

Judge  
 Prosecuting Attorney  
 Jury (class)  
 Bailiff  
 Defense Attorney  
 Defendant  
 Two Policemen  
 Witness (what do you know about tobacco?)  
 Witness (what does tobacco do to the body?)  
 Witness (confirmed the above)  
 Doctor (portray famous cancer specialist) tells about  
     smoking and lung cancer  
 Witnesses for the defendant

Each one in the class has an assignment. After two weeks they report to the class. Instead of giving reports, put tobacco on trial. Have the prosecuting witnesses present factual information concerning tobacco. The witnesses for the defense should present material in favor of tobacco. The two attorneys should sum up the evidence, and the case be sent to the jury. Tobacco is then sentenced or released.

STEPS IN THE EVOLUTION OF ADVERTISING<sup>1</sup>

1. Advertising prior to the mid 19th century, whether it be a town crier, use of the sandwich board, or periodical advertising, consisted only of announcement of products for sale (prices or other advertising appeals were never included). Selling was the job of the salesman.
2. The next step was recognition of the importance of people seeing the ad in the periodical. (Then came devices such as boxing the ad, use of larger print, or pictures that had no relationship to the product for sale but did attract attention.)
3. Then developed an awareness that ads can be devised that create a want for a product. (From this developed many advertising appeals that arouse the emotions, such as desire to eat, the appeal of cleanliness, beauty, economy, parental interest, etc., as befits the product to be displayed.)
4. Next was realization of the importance of planning the ad from the consumer to the product. (What are his likes or dislikes, what does he believe, how can we stimulate his desires, what does he remember, etc.)
5. Then advertisers saw the possibility of subtle long range advertising to educate to new wants. (Through this method the tobacco interests slowly undermined the work of the home, the school and the church with respect to their attitudes and beliefs on the subject.)
6. Advertisers then realized the value of repetition in establishing an attitude and the importance of brand names. ("I'd walk a mile for a Camel," etc.)
7. Along the way came recognition of the value of implication. (Ipana - "pink toothbrush.")
8. With wide growth of the advertising field, the value of personal endorsements by prominent people became apparent; the formation of clubs (the box top clientele); the appeal of contests; the feeling of obligation that comes from public service advertising (bringing the games, musicals, plays, etc.) on radio and later TV with their only reward your purchase of their product.
9. Finally, the problem of countering beliefs that hurt the sale of the product. (Illustrate how the tobacco companies have quite successfully countered the belief that cigarettes contribute to lung cancer, etc.)

<sup>1</sup>Spokane Public Schools, TEACHING GUIDE - SMOKING UNIT, January 2, 1963



## SAMPLE OPEN LETTER TO PARENTS

Dear Parents:

Your public schools, the American Cancer Society, the Washington State Heart Association, Washington Tuberculosis Association, and the Washington State Department of Health are vitally concerned about the number of students who smoke and even more about the number each year who begin to smoke. The American Public Health Association has estimated that, if the present smoking pattern of the sixties continues, a million youngsters now alive will eventually die of lung cancer. If the potential victims of heart disease, emphysema, and chronic bronchitis are added to the lung cancer total, the number would increase by several million.

Our basic objective is to teach the children the significant threat to health associated with smoking, and to have them make a decision about smoking based on facts. The Portland, Oregon schools have conducted a study of the smoking problem and experimented with several teaching approaches to it. They found that the most effective method of teaching about smoking was to present the facts about tobacco and smoking and to leave the ultimate decision to the students. The least effective method was the strict authoritarian approach - "you shall not smoke!" In our presentation of this unit, we shall not moralize, but rather shall present facts. We shall respect the right of all adults to smoke if they wish.

We recognize that smoking by students is initiated and carried on outside of the school. If we are to succeed in having children decide not to smoke, we must all work together. Would you take a few minutes to talk over the following points tonight with your son or daughter? The class will discuss these questions later.

1. Many adults smoke. Do some of these persons wish they had not started?
2. Is it easy to stop smoking? Why? or, Why Not?
3. Do most parents wish that their children would not smoke? Why?
4. How do grownups regard boys and girls who smoke?
5. Do most coaches have strict rules for their athletic teams about smoking? If so, why?

We appreciate your help in keeping before your children the adverse effects of smoking upon growing boys and girls. If you have a home bulletin board, it might be interesting to post clippings on this subject as they appear in the press.

Sincerely yours,

-----  
If teachers are planning pre-unit parent meetings, the following could be added:

Indicate your interest in a pre-unit discussion and adult film on smoking by signing and returning this letter. You will be notified later as to the time and place if such a meeting seems advisable.

\_\_\_\_\_  
Parent's signature

SAMPLE PRE- AND POST-TEST FOR INTERMEDIATE GRADE STUDENTS

CONCEPTUAL STATEMENT I: Encircle the T for true, the F for false, or the ? if you are undecided.

- |   |                                  |   |   |
|---|----------------------------------|---|---|
| 1. Smoking relieves tension.  | T                                | F | ? |
| 2. Smoking does not have habit forming effects.   | T                                | F | ? |
| 3. Teen-agers frequently start smoking because they want to act like adults.                        | T                                | F | ? |
| 4. Athletes endorse smoking in advertisements because they believe it helps them to perform better. | T                                | F | ? |
| 5. From the following list encircle three reasons people give for starting to smoke?                |                                  |   |   |
| a. I want to be part of the group   | d. I am curious                  |   |   |
| b. I want to be better in sports  | e. It has been proven harmless   |   |   |
| c. I want to act older  | f. My doctor advised me to start |   |   |

CONCEPTUAL STATEMENT II

- |  |   |   |   |
|--|---|---|---|
| 1. Smoking tends to increase the appetite.                                 | T | F | ? |
| 2. Smoking irritates the throat.   | T | F | ? |
| 3. Inhaling permits the smoker to absorb more nicotine.                    | T | F | ? |
| 4. Smoking is a cause of lung cancer.                                      | T | F | ? |
| 5. Filters on cigarettes prevent the absorption of nicotine into the body. | T | F | ? |
| 6. The use of tobacco may cause a shortness of breath.                     | T | F | ? |
| 7. The risk of lung cancer is less for non-smokers than for smokers.       | T | F | ? |

FOR THE FOLLOWING QUESTIONS ENCIRCLE INCREASES, DECREASES, OR NONE:

- |  |           |           |      |
|--|-----------|-----------|------|
| 8. What effect does smoking have on the heart rate?      | Increases | Decreases | None |
| 9. What effect does smoking have on the skin temperature | Increases | Decreases | None |
| 10. What effect does smoking have on the blood pressure? | Increases | Decreases | None |

FROM THE FOLLOWING LIST ENCIRCLE THREE SUBSTANCES FOUND IN TOBACCO SMOKE WHICH ARE KNOWN TO HAVE A HARMFUL EFFECT ON THE BODY:

- |                        |             |           |                    |
|------------------------|-------------|-----------|--------------------|
| 11. a. carbon monoxide | b. nicotine | c. oxygen | d. sodium chloride |
| e. carbon dioxide      | f. tar      |           |                    |

CONCEPTUAL STATEMENT III

- |   |   |   |   |
|---|---|---|---|
| 1. Smoke from tobacco may be annoying and unpleasant to other persons         | T | F | ? |
| 2. Smoking does not create a fire hazard                                      | T | F | ? |
| 3. The cost of cigarettes for the average smoker would be about \$50 per year | T | F | ? |
| 4. The law forbids persons under 21 to have cigarettes in their possession    | T | F | ? |
| 5. Some insurance companies give lower rates to non-smokers                   | T | F | ? |

- |             |            |     |      |               |      |      |
|-------------|------------|-----|------|---------------|------|------|
| ANSWERS: I. | 1. F       | II. | 1. F | 6. T          | III. | 1. T |
|             | 2. F       |     | 2. T | 7. T          |      | 2. F |
|             | 3. T       |     | 3. T | 8. Increases  |      | 3. F |
|             | 4. F       |     | 4. T | 9. Decreases  |      | 4. T |
|             | 5. a, c, d |     | 5. F | 10. Increases |      | 5. T |
|             |            |     |      | 11. a, b, f   |      |      |

## SAMPLE STUDENT QUESTIONNAIRE

Mark each of the following items to show the relationship of the information to your smoking practices.

X Influenced me to begin

O Influenced me not to begin

N Had no influence

- Friends
- Older brothers and sisters
- Parents
- Seems the "thing to do"
- Seems out of place for my age
- Friends may think me "chicken"
- Friends respect me more for not smoking
- Makes me feel grown up
- Makes me look foolish
- Nothing wrong about smoking
- It is against the law
- Not enough proof on its harmful effects
- Evidence indicates harmful effects on many parts of the body
- To satisfy my curiosity
- I observed the undesirable results
- Because I was told I couldn't
- I'm not interested in sports
- I want to take part in sports or music
- Radio, TV, and magazine advertising
- Health instruction in school

## SELECTED VOCABULARY LIST

Alveoli:	tiny air sacs in the lungs where exchange of oxygen and carbon dioxide takes place
Bronchi:	two principal branches of the windpipe, or trachea
Bronchitis:	inflammation or irritation of lining of bronchial tubes
Cancer:	any malignant tumor or growth
Capillary:	smallest blood vessels
Carbon dioxide:	gaseous waste material given off by body through the lungs
Carcinogen:	cancer causing substance or agent
Carcinoma:	tumor which is malignant; a cancer
Cardiovascular:	pertaining to the heart and blood vessels
Cell:	unit of structure of living matter
Chronic:	continuing or persisting for a long time
Cilia:	tiny, hair-like processes that help to move fluid and foreign material, as in the lungs
Circulatory system:	pertaining to the circulation, or movement of the blood through the vessels of the body
Diaphragm:	muscular partition between abdominal cavity and chest cavity which aids in breathing
Emphysema:	disease of respiratory system; characterized by over-inflation of alveoli, or air sacs, and some destruction of walls of air sacs
Exhale:	to breathe out
Filter:	porous material used to remove impurities; as in cigarettes to help remove tars and other harmful substances from smoke
Habit:	a way of behaving that has become fixed through constant repetition
Lymph:	clear watery fluid found in the lymph vessels
Lymph node:	gland-like structures in lymph system that make lymphocytes and filter the lymph
Lungs:	two organs of breathing in which the blood releases carbon dioxide and receives oxygen
Mucus:	Sticky liquid secreted by mucous glands

- Nicotine: poison found in tobacco leaves and responsible for some of the harmful effects of smoking
- Oxygen: colorless, odorless gaseous element constituting about one-fifth of the atmosphere and essential to life
- Physiology: concerned with functioning of the human body
- Poison: substance which destroys life if introduced into living organism
- Respiratory: pertaining to breathing
- Surveys: general or comprehensive view or examination of the chief features of anything
- Tars: thick, brownish-black substances, sources of many chemical substances; contained in tobacco smoke as a result of combustion
- Trachea: windpipe, or tube from larynx to lungs
- Tumor: a new growth of cells or tissues; growing independently and having no physiological use

## BIBLIOGRAPHY

BOOKS

- ANNUAL REPORT ON TOBACCO STATISTICS, 1965. U.S. Department of Agriculture, Consumer and Marketing Service. Bulletin No. 372. Washington, D.C.: Government Printing Office, April, 1966
- Bauer, W.W., and others. THE NEW HEALTH AND SAFETY. Chicago: Scott, Foresman and Company, 1966
- Bernard, H.W., TOWARD BETTER PERSONAL ADJUSTMENT. New York: McGraw-Hill Book Co., 1957
- Brecher, Ruth, and others. THE CONSUMERS UNION REPORT ON SMOKING AND THE PUBLIC INTEREST. Mount Vernon, New York: Consumers Union, 1963
- THE CELL, Life Science Library Series
- INTRODUCTION TO RESPIRATORY DISEASES. (Book) Available from Washington Tuberculosis Assn.
- Johns, Edward B. HEALTH FOR EFFECTIVE LIVING. Basic health science text for college students. New York: McGraw-Hill Book Company, 1966
- Mausner, Bernard, and Platt, Ellen S. BEHAVIORAL ASPECTS OF SMOKING. Health Education Monographs. A Conference Report, Supplement No. 2, 1966. Society of Public Health Educators, 104 E. 25th. Street, New York, 10010
- Otto, James H., and others. MODERN HEALTH. Holt, Rinehart, and Winston, Inc., 1963
- Packard, Vance. THE HIDDEN PERSUADERS. New York: Pocket Books, Inc. 75¢
- Packard, Vance. THE PYRAMID CLIMBERS. New York: Pocket Books, Inc. 75¢ (McGraw-Hill 1962)
- Packard, Vance. THE WASTE MAKERS. New York: Pocket Books, Inc. David McKay & Co. 1960
- SMOKING AND HEALTH: Report of the Advisory Committee to the Surgeon General of the Public Health Service. Washington, D.C.: Government Printing Office, 1964
- SMOKING AND HEALTH: Report of the Royal College of Physicians, New York: Pitman Publishing Corporation, 1962
- Shryock, Harold. MIND IF I SMOKE? Mountain View, California: Pacific Press, 1965
- THE HEALTH CONSEQUENCES OF SMOKING: Public Health Service Review #1696. Government Printing Office, Washington D.C. 20402. 60¢
- TOBACCO AND AMERICANS, Heimann, R.R. New York: McGraw-Hill 1960

Periodicals

- "All 92 Victims Smoked," SCIENCE NEWS (LETTER). 89:285, April 23, 1966
- Anderson, Kenneth N. "Research Report: Tobacco and Health," Part I. TODAY'S HEALTH.  
July, 1965
- Anderson, Kenneth N. "Research Report: Tobacco and Health," Part II. TODAY'S HEALTH.  
September, 1965
- Anderson, Kenneth N. "Research Report: Tobacco and Health," Part III. TODAY'S HEALTH.  
November, 1965
- Blum, Sam. "An Ode to the Cigarette Code," HARPERS MAGAZINE, 232:60-63, March, 1966
- "Cigarette Advertising," CONSUMER REPORTS. 29:246-250, May, 1964
- "Cigarettes and Atherosclerosis," SCIENTIFIC AMERICAN, 23:40, December, 1965
- "Cigarette Smoking Among High School Students Related to Social Class and Parental  
Smoking Habits," NEW ENGLAND JOURNAL OF MEDICINE. November 13, 1961
- Cousins, Norman, "The Dangers Beyond Smoking," SATURDAY REVIEW. Jan. 25, 1964, p. 22
- "Dogs, Death, and Smoking," TIME, July 15, 1966. pg. 52
- Fieser, L.F., "Story of an Ex-Smoker," READER'S DIGEST, 88:68-72, April, 1966.
- Friedman, Suzanne H. "I Choose Not to Smoke," NURSING OUTLOOK. 12:40-42, March 17, 1964
- Goldstein, Hyman, and others. "Cigarette Smoking and Prematurity" PUBLIC HEALTH  
REPORTS, 79:553-560, July, 1964
- Guthrie, Eugene, "Smoking and Health. . .One Year Later," JOURNAL OF SCHOOL HEALTH.  
25-53:57, February, 1965
- Hammond, Cuyler, "The Effects of Smoking," SCIENTIFIC AMERICAN. 207:39-51, July, 1962  
Reprint available from W.H. Freeman and Co., 660 Market St., San Francisco, Cal. 94104
- Horn, Daniel. "Behavioral Aspects of Cigarette Smoking." JOURNAL OF CHRONIC DISEASES.  
18: 383-395, May, 1963
- "Is There a Best Way to Stop Smoking?" GOOD HOUSEKEEPING. 162:165-167, May, 1965
- Jensen, Lester, and John Thompson. "Report of the 1965 Smoking Survey: Lincoln Public  
Schools--Senior High Schools," JOURNAL OF SCHOOL HEALTH. 25:366-373, October, 1965
- Johnson, Wesley, and others. "Smoking Experience of Seattle High School Students,"  
WASHINGTON EDUCATION, November, 1965.

Periodicals - continued

- "Lung Cancer and Cigarettes - Here Are The Latest Findings." American Cancer Society, Washington Division. (Reprint from Reader's Digest, June, 1962)
- McFarland, J. Wayne. "Lifeline for Ex-Smokers," NURSING OUTLOOK. 12:50-52, July, 1964
- McKeown, Raymond M. "How AMA Research Into Smoking Will Help You," TODAY'S HEALTH, 43:12, August, 1965
- Miller, L. M., and James Monohan. "Reports to Consumers on American Cigarettes," READER'S DIGEST. (Reprint of a series of articles, 1954 to 1964. 25¢)
- "New Tar Derby," NEWSWEEK. 67:85, April, 1966
- "Nicotine Can Stimulate or Depress Smokers," SCIENCE NEWS. 89:292, April 23, 1966
- "Non-smokers Given Lower Life Insurance Rates," SCIENCE NEWS. 89:150, March 5, 1966
- Perkins, James E. "Chronic Respiratory Diseases--The Need For A Coordinated Approach To The Problem," AMERICAN JOURNAL OF PUBLIC HEALTH. 54:1922, 1923, November, 1964
- Rogers, K. D., and Grace Reese. "Smoking and High School Performance," AMERICAN JOURNAL OF DISEASES OF CHILDREN. 108:117-121, August, 1964
- Seltzer, Carl C. "Why People Smoke," ATLANTIC MONTHLY. July, 1963. pp. 41-43
- "Special Issue: Cigarette Smoking," JOURNAL OF CALIFORNIA SCHOOL HEALTH ASSOCIATION. January, 1966. (693 Sutter Street, San Francisco, California, 94102. \$1.00)
- "Smoking and Health," PUBLIC HEALTH REPORTS. 81:215-217, March, 1966
- "The Smoking Women," TIME. 87:54, March 4, 1966
- "Springtime Fresh," TIME. 87:90, April 8, 1966
- Tate, Charles F., Jr. "What Is It About Cigarettes?" NATIONAL TUBERCULOSIS ASSOCIATION BULLETIN, February, 1964
- "Uncle Sam: Tobacco Salesman," CONSUMER REPORTS. 31:135, March, 1966
- Waters, Mark. "The Man Who Wrote His Own Obituary," READER'S DIGEST. 89:81-83, July, 1966



## BIBLIOGRAPHY

Of Recent Magazine Articles Which Do Not Appear In Resources Column

- "How to Stop Smoking" World Conference on Smoking and Health, NEWSWEEK 70:97-8, Sept.25,'67
- "New Warning for Cigarette Smokers" U.S. NEWS AND WORLD REPORT 63:40 Sept. 4, 1967
- "Smoking and Safety" Senate Commerce Subcommittee Hearings to investigate progress of  
research TIME 90:16-17 Spt.1, 1967
- Government pressing toward a safer smoke, SCIENCE NEWS 92:227 Sept. 2, 1967
- Animals Smoke and Die SCIENCE NEWS 92:158-9 August 12, 1967
- Tar, Nicotine & Butts; Government established levels of cigarette tar and nicotine  
content TIME 90:102+ Dec. 8, 1967
- "Your Teen-ager and Smoking" R.H. Roach TODAY'S HEALTH 46:68-70+ January, 1968
- "Out of Business; Strickman filter" NEWSWEEK 71:68 March 11, 1968
- "Breathe, Don't Smoke" F.R. Schreiber and M. Herman SCIENCE DIGEST 63:68-70 March 1968
- "Non-Smoke Signals: Cigarette Sales Decline" NEWSWEEK 71:84 April 8, 1968
- "Burning Questions: Government Analysis of Cigarettes" NEWSWEEK 70:56 December 11, 1967
- "Cigarette Controls; A Sick Joke So Far" Consumer Reports 33:97-103 Feb. 1968
- "What the Cigarette Commercials don't show" H. J. Mooney READERS DIGEST 92:71-4 January, 1968
- "Smokers vs. Non-Smokers; Personality Traits" SCIENCE NEWS 93:113 February 3, 1968
- "Classroom Tested Techniques for Teaching About Smoking" NEA Journal 56:37-50 Dec. 1967
- "Promising New Attack on the Cigarette Hazard; Chemistry of Smoking" H. Fantel SCIENCE DIGEST  
61:50-5 June, 1967
- "FCC Smoke Ruling: Radio and Television Stations must represent antismoking groups  
NEWSWEEK 69:84 June 12, 1967
- "How To Stop Smoking: World Conference on Smoking and Health" NEWSWEEK 70-97-8 Sept. 25, 1967
- "Cigarette Smoking Dogs Get Emphysema in Tests" Science News 90:25 July 9, 1966
- "To the Cigarette Makers: Just the Facts Please" L.M. Miller and J. Monahan READERS DIGEST  
89:61-7 November, 1966

PAMPHLETS (Pamphlets marked with (\*) are available in quantity for students. Contact local or state office for pamphlets prepared by American Cancer Society, American Heart Association, or National Tuberculosis Association. See addresses at conclusion of bibliography for state associations.)

A DO IT MYSELF CHART FOR BREAKING THE CIGARETTE HABIT. Washington Tuberculosis Association.

A LIGHT ON THE SUBJECT OF SMOKING, Washington State Health Department

ANSWERING THE MOST-OFTEN-ASKED QUESTIONS ABOUT . . . CIGARETTE SMOKING AND LUNG CANCER.

American Cancer Society, Washington Division, Inc.

\*ANSWERS TO 101 QUESTIONS ABOUT CANCER. American Cancer Society, Washington Division, Inc.

ANSWERS TO SOME OF THE MORE REASONABLE STATEMENTS MADE BY PERSONS CLAIMING THAT

CIGARETTES ARE NOT HARMFUL. American Cancer Society, Washington Division, Inc.

Bauer, W.W., and Dukelow, Donald. WHAT YOU SHOULD KNOW ABOUT SMOKING AND DRINKING.

Chicago: Science Research Associates, Inc., 1960

THE BELEAGURED LUNG--CANCER INVADES. Chicago: The World Book Science Annual, Field

Enterprises, 1965

BEST TIP YET (Bookmark). American Cancer Society, Washington Division, Inc.

Blakeslee, Alton. IT'S NOT TOO LATE TO STOP SMOKING CIGARETTES. Pamphlet No. 386.

New York: Public Affairs Committee, April 1966. (Single copy free from local or Washington Tuberculosis Association.)

Brecher, Ruth and Edward. SMOKING - THE GREAT DILEMMA. Pamphlet No. 361. New York:

Public Affairs Committee, 1964. (Single copy free from local or Washington Tuberculosis Association.)

CANCER FACTS AND FIGURES, 1965. American Cancer Society, Washington Division, Inc.

CANCER OF THE LUNG, American Cancer Society, Washington Division, Inc.

CANCER FACTS AND FIGURES, 1968 (Updated Yearly) American Cancer Society, Washington Division, Inc.

THE CANCER QUACKS. Public Health Service Publication No. 559. Washington D.C.:

Government Printing Office, 1963

CARDIOVASCULAR DISEASES IN THE UNITED STATES, 50¢. U.S. Public Health Service.

Pamphlets - continued

- \*CHRONIC BRONCHITIS - THE FACTS. Washington Tuberculosis Association
- \*CHRONIC COUGH - THE FACTS. Washington Tuberculosis Association
- CIGARETTE SMOKING AND CANCER. American Cancer Society, Washington Division, Inc.
- CIGARETTE SMOKING AND HEALTH. American Cancer Society, Washington Division, Inc.
- CIGARETTE SMOKING AND LUNG CANCER. American Cancer Society, Washington Division, Inc.
- CIGARETTE SMOKING, CIGARETTE ADVERTISING, AND HEALTH. Anti-Tuberculosis League of  
King County
- CIGARETTE QUIZ, Washington State Heart Association, 1966
- CIGARETTE SMOKING--THE FACTS. Washington Tuberculosis Association
- CONFERENCE ON SMOKING AND HEALTH. Connecticut Thoracic Society
- Curtis, Lindsay R. SMOKING OR HEALTH? Dallas, Texas: Texas Alcohol Narcotics  
Education, Inc. 2814 Oak Lawn Avenue, Dallas, Texas 75219 (50¢ per copy)
- \*EMPHYSEMA - THE FACTS. Washington Tuberculosis Association
- ENJOY THE PLEASURES OF NOT SMOKING. Washington State Heart Association
- FACTS ABOUT SMOKING. Farmers Insurance Group. 20 pp.
- FACTS FOR TEENAGERS: SMOKING, HEALTH, AND YOU. Children's Bureau Publication No. 424,  
Washington, D.C.: Government Printing Office, 1964 pp.22
- HEART PUZZLE, Washington State Heart Association
- THE FACTS ON TEEN-AGE SMOKING. American Cancer Society, Washington Division, Inc.
- THE FACTS ABOUT SMOKING AND HEALTH, Public Health Service Publication #1712, Washington  
State Department of Health
- \*THE FACTS - SERIES. Anti-Tuberculosis League of King County
- FILTER THE FACTS BEFORE THE SMOKE. Anti-Tuberculosis League of King County
- THE FRAMINGHAM HEART STUDY. American Cancer Society, Washington Division, Inc.  
Hammond, E. Cuyler. THE EFFECTS OF SMOKING (Reprint from Scientific American, July,  
1962. American Cancer Society, Washington Division, Inc.)
- \*HAVE YOU READ THE FACTS? DON'T SMOKE (Bookmark) Washington State Department of Health

Pamphlets - continued

- \*I HAVE A SECRET CURE FOR CANCER. American Cancer Society, Washington Division, Inc.
- \*I'LL CHOOSE THE HIGH ROAD. American Cancer Society, Washington Division, Inc.
- INSURANCE FACTS, 1965. New York: Insurance Information Institute, 110 Williams Street  
New York, N.Y. 10038 (Information on causes of fires)
- \*IT'S UP TO YOU. Washington State Heart Association
- McGrady, CIGARETTES AND HEALTH. Pamphlet No. 220A, New York: Public Affairs Committee,  
1963 (Single copy free from local or Washington Tuberculosis Association)
- NARROWING THE SEARCH. American Cancer Society, Washington Division, Inc.
- \*NO IF'S - NO MAYBE'S - NO BUTTS, Washington Tuberculosis Association
- PROBLEMS OF CHANGING ATTITUDES AND ACTIONS ON SMOKING. Washington Tuberculosis  
Association, 1964 (two articles)
- PICK A PACK OF TROUBLE, Readers Digest, June, 1968, Washington State Health Department
- \*RESPIRATORY CHART. Washington State Tuberculosis Association. (8½ x 11" for students,  
17" x 22" chart for teachers)
- Salber, Eva J. FACTS ABOUT SMOKING AND HEALTH. SRAGuidance Service Series Booklet.  
Chicago: Science Research Associates, Inc., 259 East Erie Street, Chicago, Ill. 60611
- \*SHALL I SMOKE? American Cancer Society, Washington Division, Inc.
- \*SHORTNESS OF BREATH - THE FACTS. Washington Tuberculosis Association
- Sister Mildred Marie, ANTI-CIGARETTE SMOKING CAMPAIGN. (Mimeographed report of project  
in DeSales High School, Walla Walla, Washington)
- SMOKE BRAKE. Anti-Tuberculosis League of King County (Available in quantity only  
in King County)
- SMOKE SIGNALS. American Temperance Society
- \*SMOKING AND HEART DISEASE. Washington State Heart Association
- SMOKING AND LUNG CANCER. U. S. Department of Health, Education and Welfare, Public  
Health Serv Washington D.C.: Government Printing Office
- SMOKING: FACTS YOU SHOULD KNOW. Chicago: American Medical Association, 1964.

Pamphlets - continued

SMOKING, HEALTH AND YOU - FACTS FOR TEENAGERS. Children's Bureau, Publication No. 424,  
Washington D.C.: Government Printing Office.

\*SMOKING IS FOR SQUARES. National Periodical Publications, Inc. 1964. American Cancer  
Society, Washington Division, Inc.

STATEMENT OF AMERICAN CANCER SOCIETY ON CIGARETTE SMOKING. American Cancer Society,  
Washington Division, Inc.

TEN LITTLE SMOKERS, Washington State Department of Health

TEEN-AGE CIGARETTE PURCHASING AND SMOKING HABITS IN THE U.S.A. Gilbert Youth Research,  
235 East 42nd. Street, New York, N.Y.

TEENAGERS AND CIGARETTES. Reprint from CHANGING TIMES, Kiplinger Magazine, 1729 H St.,  
N.W., Washington 6, D.C. March, 1962.

THERE'S A KILLER AMONG US. American Cancer Society, Washington Division, Inc.

10 LITTLE SMOKERS. Minneapolis: Imagination, Inc., 4032 Maryland Ave., No. Minneapolis,  
27 Minnesota. (Satire in cartoons showing how smoking is harmful to health.)

TO SMOKE OR NOT. The Sante Association, 53 Newell Drive, Bloomfield, New Jersey

\*TO SMOKE OR NOT TO SMOKE? American Cancer Society, Washington Division, Inc. 1964

\*TOO MANY CIGARETTES. Washington Tuberculosis Association

\*U.S. GOVERNMENT WANTS YOU TO KNOW. Washington Tuberculosis Association, 1966

WHAT IS IT ABOUT CIGARETTES? Washington Tuberculosis Association Reprint

WHAT TO TELL YOUR PARENTS ABOUT SMOKING. Washington State Heart Association

WHERE THERE'S SMOKE (Comic Book) American Cancer Society, Washington Division, Inc.

WHY NICK THE CIGARETTE IS NOBODY'S FRIEND. Children's Bureau Pub.# 447, Washington  
State Department of Health.

YOU CAN QUIT SMOKING, Children's Bureau, Publication No. 433, Washington State Health  
Department.

YOUR HEALTH AND CIGARETTES. American Cancer Society, Washington Division, Inc.

YOUTH LOOKS AT CANCER. American Cancer Society, Washington Division, Inc.

POSTERS

- A DO IT MYSELF CHART FOR BREAKING THE CIGARETTE HABIT. Washington Tuberculosis Assn.
- BEST TIP YET! DON'T START. American Cancer Society, Washington Division, Inc.
- CIGARETTES SHORTEN LIVES. Washington Tuberculosis Association
- DARE TO BE DIFFERENT - DON'T SMOKE! Anti-Tuberculosis League of King County
- DON'T START. Washington State Heart Association
- EASY TO START - HARD TO STOP - WHY SMOKE? Anti-Tuberculosis League of King County
- EMPHYSEMA. American Temperance Society
- I DON'T SMOKE CIGARETTES (Series of 4 posters - 3 sports figures and 1 singer).  
American Cancer Society, Washington Division, Inc.
- MORE CIGARETTES, MORE LUNG CANCER. American Cancer Society, Washington Division, Inc.
- QUIT SMOKING? NEVER STARTED (Series of 4 posters). Anti-Tuberculosis League of  
King County
- RESPIRATORY SYSTEM. National Tuberculosis Association
- TEACHERS' GUIDE (Posters on cigarette smoking and health) American Cancer Society,  
Washington Division, Inc.
- U.S. GOVERNMENT WANTS YOU TO KNOW. Washington Tuberculosis Association
- YOU GOT THIS FAR WITHOUT SMOYING - WHY START? Anti-Tuberculosis League of King County

**FILMS** (Check your school district audio-visual library before ordering films from agencies; ask for discussion pamphlet for each film.)

**BREAKING THE HABIT** (sound, color, 6 minutes) Senior high and older. American Cancer Society Washington Division, Inc.

**BREATH OF AIR** (sound, color, 21 minutes) Junior and Senior High and older. American Cancer Society, Washington Division, Inc.

**CANCER BY THE CARTON** (sound, color, 30 minutes) American Temperance Society, 1958. (Physicians present evidence as well as personal testimony regarding dangers of smoking.) Senior high and teachers or parents. Available through Washington State Department of Health.

**EMBATTLED CELL, THE** (sound, color, 21 minutes) Senior High and older. American Cancer Society, Washington Division, Inc.

**NO SMOKING** (sound, color, 10 minutes) Sid Davis Production, 1964. (Presents facts on why one should not smoke. Fire and health hazard emphasized). Elementary and junior high. Available through Washington State Department of Health.

**ONE IN 20,000** (sound, color, 25 minutes) Metropolitan Films, Inc. Available through Washington State Department of Health.

**PHONY FOLKS, THE** (sound, color, 10 minutes) Elementary school. Washington State Department of Health

**POINT OF VIEW** (sound, black and white, 18 minutes) National Tuberculosis Association, 1965. (Visitors from outer space mimic behavior of earth men and women. Ends on you and your point of view). Available through local and state Tuberculosis Association and Washington State Department of Health. Ninth grade and older.

**SMOKE, ANYONE?** (sound, color, 9 minutes) Columbia University Press, 1964. (Presents message on what you do now will decide your future) Elementary grades. Available through Washington State Department of Health.

**SMOKING AND HEART DISEASE** (sound, color, 10 minutes) Elementary and older. Washington State Health Dept. and Washington State Heart Association

FILMS - continued

- SMOKING AND YOU (sound, color, 11 minutes) Ministry of Health, Scottish Health and Home, 1964. (Shows common unglamorous situations associated with smoking and the health hazard which smoking creates). All levels. Available from Washington State Department of Health. (Elementary only until more copies are available.)
- TIME PULLS THE TRIGGER (sound, color, 23 minutes) American Temperance Society, 1961. (Graveyard scene at start followed by doctor talking to patients at veteran's hospital. Animated section of film showing effects on body is good). Available through Washington State Department of Health
- TIME FOR DECISION, A. (sound, color, 16 minutes) Directed to community leaders encouraging them to take action regarding smoking and health education. American Cancer Society, Washington Division, Inc. 1967.
- TIME TO STOP IS NOW (sound, color, 8 minutes) American Cancer Society. (Harmful effects on the body systems emphasized) Available through American Cancer Society, Washington Division, Inc. and Washington State Health Department.
- TORACCO AND THE HUMAN BODY (sound, black and white, 15 minutes) Encyclopedia Britannica, 1961. (Brief history of smoking followed by factual presentation of substances in smoke and their effect on the body) Junior and senior high school. Available through Washington State Department of Health
- TOO TOUGH TO CARE (sound, color or black and white, 18 minutes) Marin County, California (Excellent satire on advertising industry). Junior and senior high school Available through American Cancer Society, Washington Division, Inc. and Washington State Department of Health.
- UP IN SMOKE (sound, color, 23 minutes) (Satire on tobacco industry advertising) Junior or senior high school. Available through Washington State Department of Health
- WHO, ME? (sound, color, 22 minutes) American Cancer Society. (Effective testimonials and approach to stopping the smoking habit) Available through American Cancer Society, Washington Division, Inc.



FILM STRIPS

CANCER CHALLENGE TO YOUTH (sound, color, 15 minutes) American Cancer Society,  
Washington Division, Inc.

I'LL CHOOSE THE HIGH ROAD (sound, color, 15 minutes) American Cancer Society.

(Explores future opportunities and challenges and points out health aspects of  
smoking. Reasons why persons are led to smoke are presented) Elementary grades.

Available through American Cancer Society, Washington Division, Inc.

TO SMOKE OR NOT TO SMLKE (sound, color, 25 minutes) American Cancer Society.

(Presents evidence of link between smoking and lung cancer. Designed for  
discussion to follow) Junior High school. Available through American Cancer  
Society, Washington Division, Inc.

SLIDES

SMOKING AND HEALTH SLIDES - Set of 42 slides with accompanying "Illustrated Speaker  
Manual on Smoking and Health.

GUIDES

THE HEALTH HAZARDS OF SMOKING. Division of Health Education, Cleveland Public Schools, Cleveland, Ohio, 1965.

HEALTH HELPS--SMOKING AND HEALTH (Set of posters) Anti-Tuberculosis League of King County.

WHY DO THEY START (The psychology of adolescent smoking).

I DON'T SEE IT (Objections to smoking facts).

I DON'T SMOKE, THEY SAY (Hints for anti-smoking teaching).

WHY KEEP THE HABIT (The motivations to continue).

Philadelphia Smoking and Health Project. Castor and Lycoming Avenue, Philadelphia, Pennsylvania. 19124.

A CATALOG OF 120 SLIDES DEPICTING HEALTH HAZARDS OF CIGARETTES.

SAMPLE PRESENTATIONS ON SMOKING AND HEALTH (Prepared talks for teen-agers and for adult audiences).

LIVE WITHOUT CIGARETTES; THANKS! I'VE QUIT (Discussion of why people continue to smoke and how to live without cigarettes).

SMOKING AND HEALTH RESOURCES BOOKLET, 1965 (Prepared jointly with Pennsylvania Department of Public Health).

Roswell Park Memorial Institute, New York State Department of Health, 666 Elm Street, Buffalo, New York, 14203.

EDUCATIONAL MATERIALS ON SMOKING (contains samples of posters which can be ordered).

EN-GARDE: CURRICULUM ON SMOKING AND HEALTH.

SMOKING AND DISEASE: A TEACHER REFERENCE. State of Maine - Department of Health and Welfare, Division of Cancer Control and State of Maine - Department of Education, 1964-65.

SMOKING AND LUNG CANCER: TEACHING REFERENCE GUIDE, 1963. by Phyllis Busch. New Jersey State Department of Health, New Jersey State Department of Education, American Cancer Society, New Jersey Division.

GUIDES (continued)

SMOKING AND THE HEALTH OF YOUTH: A RESOURCE UNIT. Department of Public Instruction and Department of Health, Harrisburg, Pennsylvania, 1963.

SMOKING AND YOUTH: LEADERS' MANUAL, Washington State Department of Health, 1965.

SMOKING AND YOUTH: RESOURCE MANUAL FOR STUDENTS AND TEACHERS. Washington State Department of Health, 1965.

Spokane Public Schools, TEACHING GUIDE - SMOKING UNIT. Supplements published to keep guide up-to-date. George Werner, Director, Physical Education, Spokane, Washington

Stark County Tri-Agency Health Education Council, Instructional Materials for Education About Smoking and Health. Stark County Units of American Cancer Society, Heart Association, and Tuberculosis and Health Association, Canton, Ohio

(A kit of materials which is for sale includes the following publications)

SMOKING EDUCATION CURRICULUM GUIDE, Grade VI. Stark County Schools.

SMOKING EDUCATION CURRICULUM GUIDE, Grades VII, VIII, and IX. Stark County Schools.

WILL YOUR STUDENTS SMOKE? Ohio Smoking and Health Committee, 1965.

TEACHERS GUIDE ON SMOKING AND HEALTH; Grades five through eight in elementary schools; Grades seven through twelve in junior and high schools. California Interagency Council on Cigarette Smoking and Health.

TEACHERS GUIDE ON SMOKING AND HEALTH, Grades 5-12. Rhode Island Interagency Council on Smoking, 1965. Department of Health, State Office Building, Providence, Rhode Island.

TEACHING ABOUT SMOKING AND HEALTH. State of Illinois, Office of the Superintendent of Public Instruction and Department of Health, 1964.

ADDRESSES OF SELECTED ORGANIZATIONS PROVIDING MATERIALS  
ON SMOKING AND HEALTH\*

AMERICAN CANCER SOCIETY  
Washington Division, Inc.  
123 West Harrison Avenue  
Seattle, Washington 98119

WASHINGTON STATE HEART ASSOCIATION  
3121 Arcade Building  
Seattle, Washington 98101

WASHINGTON TUBERCULOSIS ASSOCIATION  
230 Securities Building  
Seattle, Washington 98101

WASHINGTON STATE MEDICAL ASSOCIATION  
1800 Terry  
Seattle, Washington

WASHINGTON STATE DEPARTMENT OF HEALTH  
Public Health Building  
Olympia, Washington 98501

AMERICAN MEDICAL ASSOCIATION  
535 North Dearborn Street  
Chicago, Illinois 60610

NATIONAL CLEARINGHOUSE ON SMOKING AND HE LTH  
U. S. Public Health Service  
Washington, D. C.

\*It is recommended that you contact the local unit or state unit rather than writing directly to the national office when requesting information on materials.