

TOBAC-NO! A GRADE SIX SMOKING PREVENTION UNIT

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A GRADE SIX SMOKING PREVENTION  
CURRICULUM UNIT  
BY  
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A Project  
Submitted to the School of Graduate Studies  
in Partial Fulfilment of the Requirements  
for the Degree  
Master of Science (Teaching)

McMaster University

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MASTER OF SCIENCE (TEACHING) (1994)  
(Human Biodynamics)

McMASTER UNIVERSITY  
Hamilton, Ontario

TITLE: Tobac-no! A Grade Six Smoking Prevention Curriculum Unit

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NUMBER OF PAGES: v, 39

## ABSTRACT

Smoking is still the leading cause of death and illness in Canada today (Wong, 1990). The process of addiction begins for many as early as 12 years of age (Health Canada, Canadian Association for School Health, Canadian Council on Smoking and Health, Heart and Stroke Foundation, 1991), and currently, only 3% of people ever begin smoking beyond their teens. King and Coles (1992) established that by age 15, 22% of males and 29% of females are occasional or regular smokers. These and other statistics clearly establish that smoking is a major health care concern. In order to effectively reduce or eliminate this problem, the root causes or determinants of smoking behaviour must first be recognized. The various demographic, socioeconomic, personality and biologic factors (Flay, d'Avernas, Best, Kersell & Ryan, 1983) must be addressed by comprehensive strategies which include the goals of promotion, prevention, intervention and support. These goals should be achieved by means of appropriate instruction, social support, support services and physical environmental intervention (Council for a Tobacco-Free Ontario [CTFO], 1991; Garcia, d'Avernas & Best, 1988).

The focus of this paper is instruction, which is defined to include a well developed curriculum, relevant teaching and learning materials and appropriate teacher preparation. The principles of a Social Influences Approach are applied to the development of TOBAC-NO!, a grade six smoking prevention curriculum unit for the Hamilton Board of Education.



## ACKNOWLEDGEMENTS

I would sincerely like to acknowledge the individual contributions of those who were instrumental in helping me complete this project. My supervisors, Digby Elliott and Leslie Van Dover, provided invaluable direction and continued support throughout the development of the project. The Hamilton Board of Education writing team: Darlene Baker, Tara Gasparik, Stella Gibson, Darelene Murray and Anne Washington, brainstormed ideas and piloted potential teaching strategies. Nghiem Ba Ha, a gifted art student from Sir John A. Macdonald, helped create the name, "TOBAC-NO!" and the logo for the curriculum unit. Finally my colleague, Bob Gillie, spent countless hours helping me edit and layout the text. I am truly grateful for all their help.

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## INTRODUCTION

## INTRODUCTION

Few educators would argue that substance abuse is a major health care issue. But, are we, as a society, recognizing some of the most obvious drug problems? Some insight into this question is revealed in journal entries which the author developed last year as part of a graduate curriculum course. This process of journal writing was inspired by Connelly and Clandinin (1988) who wrote Teachers as Curriculum Planners. Their progressive view of curriculum encourages educators to use such tools of reflection to uncover and make meaning of their own "personal curriculum" in order to more effectively understand their students' curriculum.

January 1993,

As I walked through the school's front entrance I could no longer ignore the offensive greeting I receive every morning. Clouds of cigarette smoke choked me as I tried to reach the main doors. Rain or shine, morning, noon and break-time, they are out there. Through the haze I recognized Pam; bright, athletic, popular and only fourteen. She realized I had seen her and she turned her back quickly to avoid eye contact. I thought of saying something to her but I avoided the confrontation and carried on. As I climbed the stairs to my classroom I started to review my day's lessons. But, I kept being distracted by the scene I had just left downstairs. Somehow French verb tenses seemed trivial in comparison.

When I left work that afternoon, the students had cleared out of the smoking area but the smell of stale smoke still lingered. Cigarette butts littered the ground, a constant reminder of the substance abuse that goes on right under our noses.

March 1993,

I am in a state of shock. I attended a professional development workshop on substance abuse today. It was obvious that a great deal of time and money was invested in training the workshop leaders and in preparing the materials. They dealt with drugs such as cocaine, crack and LSD but, when I asked what approach should be taken with tobacco, my question was basically dismissed. Have we normalized this form of substance abuse or am I overreacting to the severity of the problem?

April 1993,

Bea (a colleague) noticed a research article on smoking prevention on my desk. She commented on what an important issue it was and how she nearly lost it when she saw one of our students about eight months pregnant puffing away out in the smoking area! (McKinty, 1993)

Before reflecting on the content of these passages it would be useful to review Connelly and Clandinin's overall framework for curriculum. They present a model for

curriculum which focuses on the general terms "experience" and "situation". "The general idea is that curriculum is something experienced in situations. People have experiences. Situations are made up of people and their surrounding environment" (Connelly & Clandinin, 1988, p.6). The key people are identified as the teacher and the students. The things are texts, seating, computers, etc. The processes include teaching and learning strategies. None of these components exist in isolation but rather interact dynamically on an ongoing basis.

Connelly and Clandinin also emphasize the temporal profile of these situations. Every situation is influenced by past events in the classroom and in the lives of the persons (teacher and students) involved. The significance of past events is also supported by Pinar (1975). Researchers such as Larsson (1984), and Olson (1981), concentrate their studies on the concept of the present. Like Lampert (1985), Elbaz (1983), and Janesick (1982), Connelly and Clandinin's picture of curriculum is also forward moving, with a sense of having a future. What has happened in the past and present will logically influence situations in the future, a future that is seen as directional, moving toward a certain end. This end is often interpreted by some as specific elements such as goals, objectives, learning outcomes and so forth. Others interpret directionality more generally or philosophically in terms of a rationale or a personal set of beliefs and values that shape the direction of a person's life.

The concepts of present, past and directional future are further interconnected in the authors' following explanation:

The past shapes the future through the medium of a situation, and the future shapes the past through the stories we tell to account for and explain our situation. Where we have been and where we are going interact to make meaning of the situations in which we find ourselves. (Connelly & Clandinin, 1988, p.9).

The authors encourage the reader to create a visual "picture" of the dynamic, interactive process of curriculum rather than a traditional, concrete definition such as "course of study". What is also powerful about Connelly and Clandinin's approach is that they place a strong emphasis on the teacher. Their premise is that if teachers understand what makes up their own personal curriculum, they will better understand the difficulties, whys and wherefores of their students' curriculum. In essence, the authors believe that a teacher's curriculum is a metaphor for understanding the student's curriculum. This emphasis on the idea of a "personal" curriculum incorporates an "emotional" element to the visual "picture" of curriculum.

In broad terms, Connelly and Clandinin define a teacher's curriculum as the personal, practical knowledge (both subjective and objective) that teachers uncover by reflecting on their actions and practices. The tools recommended for reflection include journal writing, story telling, biography, letter writing, and document analysis, among others. The educators' interpretations of their curricula bring meaning to their practice and translate into their personal philosophy, principles and values. Educators, in turn, govern their behaviour and teaching according to these fundamental principles. The idea

that teachers' value systems influence their approach to curriculum may seem obvious to some. Connelly and Clandinin would, however, suggest that teachers often neglect to reflect on their experiences and actions in order to truly define the value system that guides their practices. The following notes confirm this suggestion.

When I originally enrolled in this graduate course on curriculum, I thought I would study how to develop a formal course of study. To my surprise, we were asked to investigate Connelly and Clandinin's approach to curriculum. This involved investigating ourselves. Initially, I did not accept their philosophy and I was hesitant to delve into my personal history through narratives, journaling and so forth. Perhaps I was afraid of what I would uncover! Perhaps I was too caught up in the pace of daily teaching activities to really question or reflect on the bigger picture. Reluctantly I began the exercise of journaling. My original entries were fairly inhibited. Eventually, however, I warmed up to the activity and I came to recognize its merit.

As I reviewed and reflected on my writing, I recognized a recurring theme, my concern over the "Smoking" issue. Seeing it in writing made it difficult to ignore. Although it sounds somewhat cliché, I really did start to question my own principles and values. If my role was to help young people develop into confident, healthy, productive members of society, how could I ignore such a serious issue? How could I dismiss the fact that a large number of our students were engaging in



a potentially fatal form of substance abuse. Instead of becoming productive citizens these students could likely go on to become a burden to society.

So began my acknowledgment of and involvement in the area of smoking prevention. In reflecting on and finding meaning in my personal curriculum, I was able to identify an area where I could potentially make a difference. (McKinty, 1993)

## A FRAMEWORK

This paper presents the process engaged in to arrive at a product, a grade six smoking prevention unit developed for the Hamilton Board of Education (see Appendix A). Initially, a sound rationale which establishes smoking as a major health care problem is presented. In order to solve any problem it is essential to identify and address its root causes. These are identified as the demographic, socioeconomic, personality and biological determinants which influence an adolescent's decision about smoking. Also, smoking onset occurs in a sequence of stages beginning with anticipation /preparation, initiation, experimentation and progressing on to regular use (Flay et al., 1983; Flay & Conrad, 1989).

These potentially negative determinants must be countered by the positive influences of a comprehensive approach to smoking prevention which includes the goals of promotion, prevention, intervention and support. These comprehensive goals are achieved by specific means which include instruction, support services, social support and physical environment (CTFO, 1991; Garcia, d'Avernas & Best, 1988; Glynn, 1989). The positive effects of such a comprehensive program would ideally counter the negative influences and ultimately enable adolescents to make the choice to remain or become non-smokers.

Although all of the means outlined are equally important, it is beyond the scope of this paper to thoroughly investigate each of them. A specific means, that of instruction, is focused on and a theoretical model for instruction, the social influences approach to smoking prevention, is presented. The principles of this model are applied to the development of TOBAC-NO! (see Appendix A), a curriculum unit prepared for the

Hamilton Board of Education, which contains relevant teaching and learning materials for the grade six level. In addition, suggestions for adequate teacher preparation are made to ensure the successful implementation of this curriculum.

## RATIONALE

## RATIONALE - RECOGNIZING A REAL DRUG PROBLEM

Cigarette smoking is the single most important cause of preventable illness and premature death in Canada (Wong, 1990). More specifically, tobacco use is clearly linked to premature death, disability, and diseases such as bronchitis, emphysema, lung cancer, and other respiratory diseases. It also aggravates existing respiratory conditions (U.S. Department of Health and Human Services [USDHHS], 1984). About thirty percent of all cancer and coronary heart disease deaths, and about eighty-five percent of all chronic obstructive lung disease deaths are attributable to tobacco use (Wigle, 1989). Smoking during pregnancy increases the risk of low birth weight. Babies born to smoking mothers are at an increased risk of perinatal and neonatal death and long-term health and developmental problems (USDHHS, 1980).

Second, no cigarette or level of smoking is safe. A major report by the U.S. Department of Health and Human Services concluded that there is no safe level of tobacco consumption. Many smokers are opting for low yield cigarettes which contain lower tar and nicotine levels. These consumers often compensate for decreased nicotine delivery by inhaling more often, more deeply, for longer duration and by smoking more cigarettes. Also, the carbon monoxide uptake appears to be the same, or greater because of design factors such as non-porous paper (USDHHS, 1989).

Third, tobacco causes more deaths in Canada than the total number of deaths caused by drug use, AIDS, murder, suicides, and car accidents all combined (Wigle,

1988). About 38,000 Canadians die yearly from smoking related illnesses; in excess of 100 people daily. This death rate has been likened to a jumbo jet leaving every four days and never returning.

Fourth, the average age at which young people take up smoking has dropped from 16 to 12 years of age. Currently, only 3 percent of people ever begin smoking beyond their teens (Health Canada et al., 1991). Although the past thirty years have seen a significant decline in smoking addiction, the risk to Canadian young people still remains unacceptably high. In 1991, an estimated 600,000 teen smokers spent over \$452,000,000 annually on cigarettes (National Clearing House on Tobacco and Health [NCHTH], 1993). A Health and Welfare Canada study conducted in 1989-1990, as part of a World Health Organization Initiative, indicated that by age 13, 14% of boys and 20% of girls are occasional or regular smokers. By age 15 these percentages reach 22% for males and 29% for females (King & Coles, 1992). This reflects another real concern, which is the growing number of teen female smokers relative to past trends.

Fifth, nicotine is just as addictive as heroin, cocaine and alcohol (Kozlowski, 1989; USDHHS, 1988). Given our current knowledge about the effects of tobacco, if it were to be invented today, the membership of the National Action on Tobacco Coalition believes that it would be classified as an illegal drug and no government would allow its sale. It is also the only legal product on the market today that is lethal when used exactly as intended by the manufacturers (Ontario Council on Smoking and Health [NCSH], 1991).

Finally, tobacco is considered a "gateway" drug and research suggests that preventing smoking could reduce the potential for other forms of drug abuse (USDHHS, 1988). There is a link between the level of tobacco use and the use of illicit drugs such as cocaine and marijuana (Henningfield, Clayton & Pollin, 1990). It has been suggested that this association involves three components (Keegan, 1991). First, nicotine can produce central nervous system changes similar to those produced by cocaine and morphine. These brain centre alterations are considered to predispose a nicotine user to use other drugs. Second, the learned behaviour of inhaling can make the delivery of other inhaled drugs more effective and efficient. Third, when individuals use nicotine to regulate their mood and behaviour, they may be more inclined to use other drugs for the same purpose. In this sense, tobacco is seen as a potential "stepping stone" or "gateway" to other forms of drug abuse.

This information firmly establishes smoking as a major health problem that begins at a relatively young age. Collectively, these facts constitute a strong argument in support of implementing strategies to address the problem. This view is supported by the Ontario Ministry of Training and Education (1993) which mandates tobacco education from kindergarten to OAC level. Implementing preventive measures is also consistent with the current trends in health care reform toward greater health promotion and disease prevention.

## DETERMINANTS OF SMOKING ONSET



## DETERMINANTS OF SMOKING ONSET

The preceding section clearly establishes that smoking is a significant problem. In order to effectively reduce this problem it is essential to identify the root causes of smoking. Preventive measures may then be suggested to address these causes.

It has been suggested that the onset of cigarette smoking is a rather complex process that involves several progressive stages (Flay et al., 1983). The initial stage of preparation and anticipation is followed by initiation, experimentation and eventually progresses to regular smoking. Preparation and anticipation are the stages during which adolescents form their attitudes and beliefs about the utility of smoking. Initiation, the trying stage, is when adolescents smoke their first few cigarettes. This is followed by the experimental stage, when adolescents smoke repeatedly but irregularly. Finally, some adolescents move on to regular smoking.

These stages are considered to have several influencing factors or determinants (Flay et al., 1983). Social environment antecedents such as parental smoking (Chassin, Presson, Sherman, Montello & McGrew, 1986; Croft, Hunter, Webber, Watson, & Berenson, 1985); sibling smoking (Alexander et al., 1983; Ary & Biglan, 1988); peer smoking (Ary & Biglan, 1988; Chassin et al. 1986); and media influences (DiFranza et al., 1991; Pierce et al., 1991), in conjunction with demographic determinants such as socioeconomic status, gender and geographic location appear to influence the initial stages of smoking onset such as preparation, anticipation and experimentation.

Adolescents tend to model the smoking behaviours of their parents and siblings in order to feel grown up, mature and independent. Young people also imitate their peers in hopes of gaining a feeling of acceptance and belonging. So, if their family and friends smoke, an adolescent is more likely to engage in the initial stages of smoking onset (USDHHS, 1994). How well adolescents have bonded with family and peers and how these significant others react to adolescent smoking also influence smoking behaviour (Flay & Conrad, 1989). Media influences also significantly affect a young person's decisions. Tobacco companies spend billions of dollars annually targeting adolescents by portraying women and men in the images that many young people want to emulate. In their advertising, women are characterized as thin, healthy, popular and independent, while men are pictured as rugged, athletic, risk-takers.

As experimentation with smoking develops, the influencing factors become more personality based. More rebellious, risk-taking adolescents are more inclined to continue experimenting with tobacco. Not long after, the biological determinants are more likely to influence the youth toward continued, regular smoking. Because nicotine is so addictive, behaviour that many adolescents thought would end at experimentation progresses quickly to regular, long-term smoking (USDHHS, 1994).

The link just described, between determinants and stages of smoking onset, is somewhat oversimplified. In reality, this relationship can become quite complex. It does serve, however, to highlight how some of these factors can negatively affect a young person's decisions about smoking. It also provides some basis from which to structure some prevention strategies.

## A COMPREHENSIVE APPROACH TO SMOKING PREVENTION

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With a sound rationale in place, and an understanding of the major determinants of smoking onset, some potential solutions or strategies to address this problem will be examined.

A recent report titled "Smoke Free Schools: Better Policies, Healthier Schools: A Report Card and Planning Guide" was prepared by a committee which included representatives from The Canadian Association for School Health, The Canadian Council on Smoking and Health, The Heart and Stroke Foundation of Canada and Health and Welfare Canada (1991). The document was prepared to assist in the development and implementation of effective school policies on smoking within a comprehensive approach to reducing tobacco use. The operative term here is comprehensive. The report suggests that a comprehensive approach to school-based smoking prevention should include a wide variety of activities, policies, programs and services, which extend beyond the school and into the surrounding community. The goals of such a comprehensive approach include the following areas:

**PROMOTION** - to promote health and wellness;

**PREVENTION** - to prevent tobacco use;

**INTERVENTION** - to intervene to assist students and staff who may have started to use tobacco products;

**SUPPORT** - to support staff and students who wish to cease smoking.

The strategies or means by which these goals are to be achieved include the following:

**INSTRUCTION:** includes a comprehensive health curricula which contains a well-planned smoking prevention program, adequate teacher preparation and relevant teaching/learning materials.

**SUPPORT SERVICES:** includes referral procedures to agencies outside the school which can assist smokers in quitting.

**SOCIAL SUPPORT:** includes the use of programs to involve families, inform the media, develop public policy and mobilize self-help and community organizations.

**PHYSICAL ENVIRONMENT:** includes a no-smoking policy in schools.

The report also stresses that the development and implementation of a comprehensive school-based approach necessitates the involvement of students, families, school boards, health professionals, other agencies, community organizations and government departments from education, health and social services.

Although listed separately, these means are not mutually exclusive. There may be significant overlap and interaction among them. For example, well planned instructional programs are rarely developed without the input from support services and outside agencies such as The Lung Association, The Canadian Cancer Society, etc. It would also appear contradictory to implement a well developed instructional program on tobacco education but then to ignore the physical environment by providing designated smoking areas on school grounds for students who are not even old enough to legally purchase

subsection of which prohibits smoking on school grounds (Ontario Ministry of Health, 1994).

An exhaustive discussion about all of the means previously defined is beyond the scope of this paper. It is, however, important to recognize their significance. The primary focus of the remainder of this project is restricted to the area of instruction.

## INSTRUCTION

## INSTRUCTION

In this section, a theoretical model for instruction, The Social Influences Approach to smoking prevention is analyzed. The principles of this model are applied to the development of TOBAC-NO!, a grade six curriculum unit prepared for the Hamilton Board of Education. Relevant teaching and learning materials are presented and suggestions for adequate teacher preparation are made to ensure the successful implementation of the curriculum.

### The Social Influences Approach:

A substantial amount of research has been published in the area of smoking prevention curricula (Best et al., 1988; Bruvold, 1993; Flay, 1985a; Schaps, Dibartolo, Moskowitz, Palley & Churgin, 1981; Thomson, Santi, Smith & Brown, K., 1988). Both qualitative and quantitative reviews of prevention programs suggest that the Social Influences Model is effective in reducing the onset of smoking among young people. Flay theorizes that such programs provide a form of "social inoculation" to the young against the pressures or influences to smoke. He believes that:

Social inoculation is analogous to biological inoculation whereby a person is exposed to a small dose of an infectious agent in order to develop antibodies, thereby reducing susceptibility to subsequent exposure. This model applied to smoking posits that resistance to persuasion will be greater if one has developed



arguments with which to counter social pressures to smoke. According to the theory, the development of counterarguments would inoculate one against social influences in real life situations in a manner analogous to biological inoculation increasing resistance to the disease inoculated against. (Flay, 1985b, p. 69.)

Although this approach is widely accepted, some of the research studies which support this approach have been criticized for methodological weaknesses. Consequently, some critics remain unconvinced of the superiority of the social influences approach over traditional information based approaches (Kozlowski, Coombs, Ferrence, & Adlaf, 1989). However, a recent meta-analysis focusing on the efficacy of school-based prevention programs recognized the methodological weaknesses of existing studies and it was designed to meet the following five criteria outlined by Cook et al. (1992).

- 1) comprehensively covering a defined set of evaluation studies spanning a specified time period;
- 2) systematically screening out studies with weaker research methodology;
- 3) systematically coding the program orientation of the studies analyzed;
- 4) employing a defensible meta-analytic strategy for calculating study effect size; and
- 5) employing appropriate statistical techniques for the quantitative meta-analysis.

#### Program Classification:

The meta-analysis evaluated 94 separate intervention studies published in the 1970s and 1980s. These were classified according to Battjes' (1985) fourfold typology which is based on the work of prominent theorists in the field of drug prevention.

Table 1 summarizes the orientation, approach, focus and typical methods used in each of the categories.

**Table 1**

Orientation	Approach	Focus	Typical Methods
Rational	Information	Provide factual information about drugs, their effects and consequences.	Lecture; questions and answers; displays of substances.
Developmental	Affective Education	Increase self esteem and self-reliance; decrease alienation; development of decision making skills and/or interpersonal skills; usually includes minimal or no focus on drugs per se.	Lecture; discussion; group problem solving; minimal role playing.
Social Norms	Alternatives	Reduce alienation; increase self-esteem and/or reduce boredom; usually includes minimal or no focus on drugs.	Participation in community improvement projects; vocational training; tutoring; recreational activities.
Social Reinforcement	Social Pressure	Develop abilities to recognize social pressure to use drugs; develop special skills in resisting pressures; identify immediate social and physical consequences of drug use.	Discussion; behaviour modelling; role playing; extended practice; public commitment not to use.

Source: Adapted from Batijes p. 1116, Copyright 1986 Marcel Dekkar Inc.

Because many of the intervention programs were considered "eclectic" in orientation, all lessons or sessions were carefully analyzed. For each program, the major program orientation was given a score of 2 while secondary orientations received scores of 1. Absent component were scored as 0. Coding of program orientation was conducted by two independent researchers and any discrepant codes were resolved by discussion and by rechecking curriculum descriptors.

#### Method Criteria:

The studies were screened for methodological rigor and major analysis focused on those with more defensible methodology. Each study was independently evaluated on five methodology characteristics, using a three category code in which a rating of 1 was "exemplary", 2 was "defensible" and 3 was "unacceptable". Forty-eight of the 94 studies received methodology ratings of 1 or 2 for all five characteristics and therefore the cumulative results of these studies went on to form the major findings of the meta-analysis.

#### Meta Analytic Procedures:

Study effect sizes were computed for behaviour, attitude and knowledge measures. These calculations reflect whether students who participated in a particular prevention program demonstrated greater knowledge about and a more negative attitude toward smoking than did a control group that did not participate in such a prevention program.

Study effect size also reflects whether program participants exhibited more smoke-free behaviours than did the control groups. The formula used to compute effect sizes was  $(Me - Mc)/SDc$ , where Me is the mean of the experimental group, Mc is the mean of the control group and SDc is the standard deviation of the control group.

#### Results:

The results indicated that effect sizes were largest for interventions with a social reinforcement orientation, moderate for interventions with either a developmental or social norms orientation, and small for interventions with the traditional rational orientation. Attitude effect sizes followed the same pattern, but knowledge effect sizes were similar across all four categories. The authors concluded that because behavioural effect represents the fundamental objective of prevention programs, programs should adopt interventions with a social reinforcement, social norms or developmental orientation (Bruvold, 1993).

The evidence is now compelling enough to include this approach (social influences/reinforcement) in the new, mandatory core program guidelines for Public Health Units in Ontario (Mandatory Health Programs and Services, 1989). In addition, the Council for a Tobacco-Free Ontario has made presentations to the Ministry of Health and Education to encourage widespread dissemination of these programs (CTFO, 1991).

### Content of the Social Influences Approach:

Although the content of various programmes that have adopted the social influences approach may vary somewhat, most include the following components:

- 1) Information about the physical and social consequences of smoking;
- 2) Correction of misperceptions about smoking;
- 3) Information about the social influences to smoke (peers, family, media);
- 4) Decision making skills;
- 5) Development of refusal skills that help to resist the pressures to smoke;
- 6) Making a private or public commitment not to smoke (Best et al., 1988; Flay, 1985; Glynn, 1989; CTFO, 1991).

The following section elaborates on each of these components.

#### 1) Consequences of Smoking:

In order to facilitate making an informed decision, students are introduced to the potential consequences of smoking. The long term effects such as cancer, cardiovascular disease and respiratory diseases are severe, life threatening and important to acknowledge. Young people, however, have a sense of being somewhat invincible and tend to take their health for granted (Quadrel, Fischhoff & Davis, 1993). As a group, they tend to be present oriented and, consequently, are not as strongly influenced as adults might be by potentially fatal long term physical consequences. Youth tend to be more concerned with what have been termed social consequences, such as stained teeth and fingers, bad breath, smelly clothes and hair, less spending money, etc. Because, at this age, they are so

concerned with their physical appearance and their acceptability to one another, the negative social consequences relating to appearance tend to have more impact on them.

## 2) Correcting Misperceptions:

Young people often have many misperceptions about smoking. They may overestimate the smoking rate and sometimes do not recognize that smokers are a minority (CTFO, 1991). Their need to "fit in" and be accepted by their peers is very strong. If they perceive that most teenagers smoke, that misperception could have a significant influence on their decisions. Other misperceptions such as: light cigarettes are safer; quitting is easy if you have not smoked for long and nicotine is not very addictive could also negatively affect their decisions.

## 3) Awareness of Social Influences:

One type of information that facilitates making a decision about smoking is knowledge of what influences young people to begin smoking in the first place. Many students are aware of the direct pressure that they receive from peers. They are less aware of the more subtle, indirect pressures from their parents and siblings through the modelling effects. Students also need to recognize the power of the media through, for example, magazine ads that project the cool, popular, independent image of the smoker.

#### 4) Decision Making Skills:

Ultimately, smoking behaviour results from a young person's final decision, whether conscious or subconscious, to experiment with the drug. By acquiring higher level thinking skills (e.g., problem solving/decision making) adolescents are able to consciously identify alternatives and use evaluative criteria to make a clear decision about smoking. The preceding topics, acquiring information about the consequences of smoking, correcting misperceptions and understanding what influences a person to begin smoking provide a solid knowledge base from which to make an informed decision about whether or not to smoke. The scope and sequence section identifies decision making skills as the primary focus for the grade 5 smoking curriculum. Therefore, students should ideally arrive in grade 6 with some foundation in these higher level thinking skills.

#### 5) Making a Private or Public Commitment:

Once students have made decisions to abstain from smoking, these decisions may be reinforced and validated by having students make a private or public statement about their intention.

#### 6) Refusal Skills:

After having affirmed their intention not to smoke, it is critical for students to develop a repertoire of refusal skills that will enable them to resist the ongoing pressures to smoke. By imitating positive role models and by practising role plays that simulate real

life pressure situations, students become better equipped to resist these negative influences. Students learn how to be assertive and adopt their own style of saying "no".

In reviewing the content of the social influences approach, it is also important to note how the key concepts of this program are consistent with the more general "Living Skills" set out by the recent Ontario Ministry of Education and Training Policy Guidelines for Health Education (in press). These Living Skills are also more generally stated in the current Ministry Common Curriculum document (1993) and include: self-awareness, self-responsibility, goal setting, decision making, risk taking, behavioural control and assertiveness. It is useful to review these skills in the context of the social influences approach to smoking prevention. Students take "responsibility" for determining their own good health by "setting the goal" of being healthy, productive individuals. By increasing their knowledge base about smoking, learning about facts, statistical trends, consequences, influences and correcting misperceptions, students are then in a position to make an informed "decision" about "taking the risk" of smoking. The decision not to smoke would be consistent with their original goal of being a healthy individuals. Students then develop "assertiveness" skills and "behavioural control" skills such as self monitoring, self evaluation and self reinforcement skills that will enable them to resist the family, peer and media pressures to smoke.



### Scope and Sequence:

The target year for in-depth smoking prevention education is grade 6. This focus year is also to be preceded and succeeded by prevention and intervention measures implemented from kindergarten to the OAC level, with the major emphasis on grades 4 to 7 (Ontario Ministry of Education and Training, 1993).

The intermediate and senior prevention curricula are justified by long-term follow-up of 6th and 7th grade intervention programs that produced little behavioural effect by the time of graduation (Flay, Koepke, Thomson, Santi, Best & Brown, 1989b). This lack of long-term effect would not necessarily be inconsistent with Flay's inoculation theory since biological inoculations require scheduled reimmunizations. Similarly, as students grow, their initial social inoculation must be supplemented with booster sessions at intervals throughout their intermediate and senior years. Therefore, the scope and sequence plan for tobacco education mandated by the Ministry of Education and Training includes formative (K-6), foundation (7-10) and senior (11-OAC) curriculum. The key elements of this curriculum are as follows:

Kindergarten to grade 3: Benefits of non-smoking

grade 4: Knowledge of tobacco

grade 5: Decision making skills

grade 6: Social Influences to smoke and Resistance skills

grade 7: Social Influences to Smoke and Resistance skills

grades 8-10: Booster sessions

grades 11-12: Booster sessions

### Relevant Teaching and Learning Materials:

The previous section reviewed the theoretical basis for applying the principles of the social influences approach to the development of an effective smoking prevention program. The second element of the instructional component is the availability of relevant teaching and learning materials. Although the scope and sequence indicates the need for materials at all grade levels, the resources highlighted in this section will focus on grade six, the target year (see Appendix A). A brief introduction to the writing team will be followed by a discussion about the principles of Outcome-Based Education. The section, Program at a Glance, will then highlight the key elements of TOBAC-NO!, the actual curriculum unit.

### Writing Team:

The writing team was selected by the coordinator of Physical and Health Education for the Hamilton Board of Education. The group initially included the author, a secondary school teacher, the coordinator, three elementary school teachers, and a consultant from the Lung Association. These team members acted mainly as consultants who assessed and suggested modifications for the materials produced by the author. The appointed writing team met formally once a month and corresponded informally as required.

As the project evolved, the group grew to include several additional stakeholders. A class of grade six students from Chedoke Middle School piloted many of the suggested

activities . A secondary student from Sir John A. Macdonald developed the title, Tobacco! and the logo for the unit (see appendix A). The Ministry of Health, The Addiction Research Foundation, The National Clearing House for Tobacco and Health, The Hamilton-Wentworth Department of Public Health Services, The Lung Association, The Heart and Stroke Foundation, The Cancer Society, The Hamilton-Wentworth Council on Smoking and Health and McMaster University all provided valuable input to the project.

At our initial meeting in the fall of 1993, the group brainstormed ideas about how to effectively and efficiently proceed with the development of a unit on smoking prevention aimed at the grade six level. Three key points were made during our first meeting. First, it was established that components of the unit should be based on sound research (presented in a previous section). Secondly, the group acknowledged that there were several existing prevention programs such as the Waterloo "Keep It Clean" and the "Smoke Free 2000" programs. Consequently, there was some concern about "reinventing the wheel". It was therefore agreed that these programs would be reviewed and used as models to stimulate ideas for our unit of study. The third important point was that any instructional unit developed would have to comply with the recent Common Curriculum mandated by the Ministry of Education and Training for students from grades one to nine. The curriculum applies principles and methods that allow schools to "accommodate the various abilities, needs, and interests, as well as the differing racial and ethnocultural backgrounds, of all students in the community" (OMTE, 1993, p. 1).

The principles and methods of this common curriculum revolve around outcome-based education which is a student-centred, results-oriented, standard reference system premised on the belief that all individuals can learn. In this system:

1. What a pupil is to learn is clearly identified;
2. each pupil's progress is based on the pupil's demonstrated achievement;
3. each pupil's needs are accommodated through multiple instructional strategies and assessment tools; and
4. each pupil is provided time and assistance to realize his or her potential. (Fried, Shallhorn & Shaw, 1992).

Taking the preceding information into consideration, a grade six smoking prevention curriculum unit was developed. It consists of seven core lessons which cover the suggested content of the Social Influences approach and three optional lessons which provide an opportunity for students to explore other smoking related issues that might interest them. The key concepts, specific learning outcomes, teaching/learning strategies and performance indicators are summarized in Appendix A (pp 4 - 6). The ideas presented in this table are fully explained in Appendix 1. Other resources are also provided for the instructors in order to help broaden their base of knowledge in this area. These additional resources could also be used by the students for completion of their independent study suggested in lessons eight through ten.

### Adequate Teacher Preparation:

Even when a great deal of research and effort is invested in producing a useful curriculum package, this does not ensure that the program will be delivered effectively. Teachers are busy people who often find it difficult to find the time to preview and familiarize themselves with new materials. Even if they do explore new documents, they often have questions and concerns that need to be addressed. An appropriate forum for introducing new curriculum materials and for providing adequate teacher preparation is during professional development days.

A professional development workshop will be offered in order to acquaint the Board's health educators with TOBAC-NO! This will ensure that all teachers receive a consistent introduction to the materials and it will also assist in developing the educators' enthusiasm for and commitment to the program. Although the format is subject to change, it would likely include many of the components of this paper. Initially, a sound rationale for smoking prevention programs would be established. The determinants and stages of smoking onset would be reviewed, followed by a description of a comprehensive approach to smoking prevention. As in this report, the focus would turn to the instructional component and a brief background of the social influences approach would be covered. The instructors would then be guided through the lessons and given the opportunity to preview the films and video clips. They would also benefit from watching or participating in a role play, which is a learning strategy employed in the program.

Ideally the workshop would be delivered by members of the writing team and it would be particularly advantageous to include resource people from outside agencies such

as the Lung Association, Health Unit or Cancer Society. The presence of these individuals could help motivate educators to develop a firm commitment to the issue of smoking prevention and to recognize that we must tackle this health care problem as a united front.

## CONCLUSION

## CONCLUSION

This paper established that smoking is a significant health care problem. Statistical trends and facts relating to morbidity, mortality, early age of onset, as well as, the addictive and "gateway" properties of this drug were presented in order to highlight the magnitude of the problem. The major demographic and socioeconomic determinants of smoking onset such as family, peers and media were examined. A comprehensive approach to smoking prevention was suggested to address these major influences. Although the approach was multifaceted, the area of instruction was addressed in detail. A grade 6, target year, curriculum unit was developed using the principles of the Social Influences Approach, which helps students acquire the knowledge, refusal skills and values that enable them to remain or become non-smokers. This instructional unit is not a panacea to be implemented in isolation. It is meant to complement a detailed scope and sequence of smoking prevention instruction, adequate support services, and the establishment of a clean, smoke-free environment for our youth. In terms of curriculum development, the ideas found in Appendix A must be piloted, evaluated and modified on an ongoing basis. The strategies must remain consist with those validated by current research in the area of smoking prevention.

We regularly hear about "The War on Drugs". It is, however, somewhat ironic that perhaps the deadliest of drugs is one that we often dismiss. Along with alcohol and caffeine, it is the only one that is legal, which makes the war against tobacco that much



more challenging. Progress in the area of smoking prevention has recently been threatened by cigarette tax cuts. These lower cigarette prices significantly affect our youth, making tobacco products much more accessible to them. Destructive moves such as these underline the need to make smoking prevention a priority in terms of disease prevention and health promotion. Educators must heighten their awareness and commitment to this issue and collaborate with outside agencies to remediate this problem.

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## APPENDIX A



# TOBAC-NO!

GRADE SIX  
SMOKING PREVENTION CURRICULUM

HAMILTON BOARD OF EDUCATION





## LEARNING OUTCOMES



TOBAC-NO!

### UNIT REPORTING OUTCOME

THE STUDENTS WILL ACQUIRE THE *KNOWLEDGE, SKILLS* AND *VALUES* THAT WILL *ENABLE* THEM TO REMAIN OR BECOME NON-SMOKERS.

## LEARNING OUTCOMES



TOBAC-NO!

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**SPECIFIC LEARNING OUTCOMES*****KNOWLEDGE:***

Students will:

1. Know some basic facts and statistics about cigarette smoking.
2. Correct some misperceptions they may have about smoking.
3. Identify and describe the major parts of the circulatory and respiratory systems as they relate to the body's needs and functions.
4. Identify and classify the physical and social effects of smoking.
5. Recognize the major determinants of smoking onset (family, peers, media).

***SKILLS:***

Students will:

1. Critically appraise information about smoking (facts, effects, influences, etc.) and apply this knowledge to improve their decision making about smoking.
2. Enhance the skills (e.g. assertiveness, behavioural control) that will enable them to resist peer and family pressure to smoke.
3. Analyse tobacco advertising strategies and refute these media influences.
4. Enhance their self-directed learning skills.

***VALUES:***

Students will:

1. Demonstrate that they value their health.
2. Respect the rights and health of other members of society.

## PROGRAM AT A GLANCE



TOBAC:NOI

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### PROGRAM AT A GLANCE:

The program consists of six core lessons with suggestions for additional lessons titled "Other Issues". The following table is a brief outline of the major activities from each lesson.

There are several additional resources included for the instructor. These fact sheets and references will enable the teachers to broaden their knowledge base about tobacco before introducing the unit.

## PROGRAM AT A GLANCE



TOBAC-NO!

## TOBAC-NO!

UNIT REPORTING OUTCOME	KEY CONCEPT	SPECIFIC LEARNING OUTCOME	SUGGESTED STRATEGIES AND ACTIVITIES	PERFORMANCE INDICATORS
The students will acquire the <i>knowledge, skills, and values</i> that will enable them to remain or to become non-smokers.	<b>LESSON 1</b> TOBACCO STATS AND FACTS	STUDENTS WILL:  know some basic facts and correct some misperceptions about cigarette smoking.	i) facts and stats quiz on tobacco ii) "Swimmers" video clip iii) ARF handout	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• attempt to complete quiz</li> <li>• enter significant new knowledge in journals</li> <li>• complete cross-word with 80% accuracy</li> </ul>
	<b>LESSON 2</b> CIRCULATORY AND RESPIRATORY SYSTEMS	STUDENTS WILL:  identify & describe the major parts of the respiratory system.	i) breathing activity ii) heart and lungs questions and/or iii) heart and lungs fill in the blanks and/or iv) label anatomy diagrams and/or v) pulse activity vi) cilia worksheet	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• unscramble the path of oxygen with 100% accuracy;</li> <li>• label a diagram of the cardio-respiratory system with 100% accuracy</li> </ul>
	<b>LESSON 3</b> PHYSICAL AND SOCIAL CONSEQUENCES OF SMOKING	STUDENTS WILL:  1. identify & classify effects of smoking;  2. demonstrate that they value their health and that of others	i) Ministry "quick time" video & brainstorm consequences ii) classifying effects activity and/or iii) illustrating effects activity iv) drinking straw activity v) simulated lungs activity	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• produce a list of 10 effects of smoking</li> <li>• classify a list of effects with 80% accuracy</li> <li>• design a warning message for cigarette packages and/or</li> <li>• make a private statement in their journals not to smoke</li> </ul>

continued ...

## PROGRAM AT A GLANCE



TOBAC-NO!

**TOBAC-NO!**

UNIT REPORTING OUTCOME	KEY CONCEPT	SPECIFIC LEARNING OUTCOME	SUGGESTED STRATEGIES AND ACTIVITIES	PERFORMANCE INDICATORS
	<b>LESSON 4</b> INFLUENCES AND PRESSURES TO SMOKE	STUDENTS WILL:  identify the pressures that influence them to start smoking.	i) candy game & discussion ii) guest panel iii) smokes & ladders	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• participate in game and contribute to post game and panel discussion</li> <li>• describe one example of direct pressure and one example of indirect pressure to smoke that they have experienced (journal activity)</li> </ul>
	<b>LESSON 5</b> REFUSAL SKILLS	STUDENTS WILL:  enhance their skills of assertiveness and behavioural control in order to resist the pressures to smoke	i) modelled role play of refusal skills ii) Discussions of refusal strategies iii) role play scenarios	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• identify a minimum of three refusal strategies;</li> <li>• apply refusal strategies to a simulated role play;</li> <li>• identify their personal refusal style (journal entry).</li> </ul>
	<b>LESSON 6</b> MEDIA INFLUENCES	STUDENTS WILL:  analyse tobacco advertising strategies and refute these media influences.	i) advertising strategies discussions ii) ad analysis activity	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• make an anti-smoking poster or ad.</li> </ul>

continued ...

## PROGRAM AT A GLANCE



TOBAC-NO!

## TOBAC-NO!

	<b>LESSON 7</b> UNIT EVALUATION	STUDENTS WILL:  demonstrate that they have acquired the knowledge, skills, and values that will enable them to remain or become non-smokers.	i) Unit test	STUDENTS WILL:  complete test with 80% accuracy.
	<b>LESSON 8 - 10</b> OTHER ISSUES	STUDENTS WILL:  enhance their self-directed learning skills	i) independent study	STUDENTS WILL:  <ul style="list-style-type: none"> <li>• choose a smoking issue;</li> <li>• select specific strategies for investigation of the issue;</li> <li>• present their findings in an original and creative format.</li> </ul>



KEY CONCEPT

## TOBACCO FACTS

## LESSON 1



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## LESSON 1

**SPECIFIC LEARNING OUTCOME:**

Students will know some basic facts and correct some misperceptions about cigarette smoking.

**RESOURCES:**

- Quiz
- Ministry video "Swimmers"
- ARF (Addiction Research Foundation) booklets
- Journal title pages (optional)

**STRATEGIES:****1. TOBACCO FACTS AND STATS - QUIZ:**

- Ask students if they can identify some of the major causes of death and sickness in our country.
- From the ones listed by the class, ask if they can identify the leading (preventable) cause of death and sickness (smoking).
- Ask students to complete the FACTS AND STATS QUIZ on tobacco
- and then take it up with the class.
- Based on the information obtained from the quiz, help students understand the rationale for participating in smoking prevention curriculum and targeting the grade six level.
- Emphasize some of the misperceptions students may have had about smoking (e.g. overestimating the % of smokers, believing that it easy to quit, etc.)



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## 2. WHAT'S IN TOBACCO

### MINISTRY ANTI-SMOKING VIDEO "SWIMMERS":

- Ask students if they have seen the "SWIMMERS" ad developed by the Ministry of Health.
- Even if they have not seen it, ask every student to list, on a piece of paper, any toxic chemicals found in cigarettes. Do not share this with the class yet. Have them do this activity individually as a short pre-test of what they already know about tobacco.
- Present the "SWIMMERS" video clip to the class, asking students to listen carefully to the substances listed in the ad. Tell them to add these to their original list.
- Elicit student reactions to the clip.
- List the toxic substances as a group.

Ask students why the Ministry of Health used this format for the ad. (Ministry wants students to be armed with concrete information in order to more effectively resist the pressure to smoke.)

### 3. ARF (Addiction Research Foundation) Handout:

- The first two pages of this booklet complement activity two.
- Help students grasp a conceptual understanding of the components of tobacco.

e.g. Nicotine - THE HOOK

Carbon Monoxide - THE STRANGLER

Tar - THE KILLER





TOBAC-NOI

*Do not go any further in the booklet during this lesson. These topics will be covered in later lessons.*

#### **4. JOURNAL WRITING:**

- Tell students that they will be asked to make personal entries in their smoking prevention journal on a regular basis throughout the unit.
- A sample journal cover page is included in this curriculum package. Another option would be to ask students to create their own title page.
- The journal questions listed in each lesson are only suggestions and the instructor is encouraged to modify these according to the material covered.

#### **LESSON 1 - JOURNAL ENTRY SUGGESTIONS:**

- Pretend you are a television critic. Comment on the positive and negative aspects of the video clip "Swimmers". Make suggestions for improving this clip.
- What was the most significant new information that you learned about smoking in today's lesson?



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**INDICATORS OF STUDENT ACHIEVEMENT:**

1. Students will demonstrate acquisition of new smoking related information through their personal journal entries.
2. Students will complete a smoking related cross-word puzzle with 80% accuracy. This can be completed as an introductory activity for lesson 2.

## FACTS AND STATS



TOBAC-NO!

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**TOBACCO FACTS AND STATS QUIZ**

1. How many Canadians does tobacco kill every year? \_\_\_\_\_
2. How many Ontarians does tobacco kill every year? \_\_\_\_\_
3. These deaths are like a jumbo jet crashing every \_\_\_\_\_ days.
4. Approximately how many different chemicals are found in cigarette smoke? \_\_\_\_\_
5. How many smokers does it take to pollute an entire building? \_\_\_\_\_
6. At what average age do people start smoking? \_\_\_\_\_
7. What % of Canadian teenage girls smoke? \_\_\_\_\_
8. What % of Canadian teenage boys smoke? \_\_\_\_\_
9. How much money do Canadian teens spend on cigarettes every year? \_\_\_\_\_
10. How old must you be to buy cigarettes legally? \_\_\_\_\_

**TRUE OR FALSE**

11. Tobacco kills more Canadians than car accidents, suicide, murder, aids, and drugs combined. \_\_\_\_\_
12. Most smokers do not want to quit. \_\_\_\_\_
13. Nicotine is not as addictive as heroine or cocaine. \_\_\_\_\_
14. People from Hamilton smoke more than other Canadians. \_\_\_\_\_
15. It can take only one cigarette to get hooked. \_\_\_\_\_

## FACTS AND STATS



TOBAC-NO!

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**TOBACCO FACTS AND STATS QUIZ**

1. How many Canadians does tobacco kill every year? **38,000**
2. How many Canadians does tobacco kill every year? **13,000**
3. These deaths are like a jumbo jet crashing every **4** days.
4. Approximately how many different chemicals are found in cigarette smoke? **4,000**
5. How many smokers does it take to pollute an entire building? **1**
6. At what average age do people start smoking? **12**
7. What % of Canadian teenage girls smoke? **29%**
8. What % of Canadian teenage boys smoke? **22%**
9. How much money do Canadian teens spend on cigarettes every year? **≈\$500,000,000**
10. What is the legal smoking age in Ontario? **19**

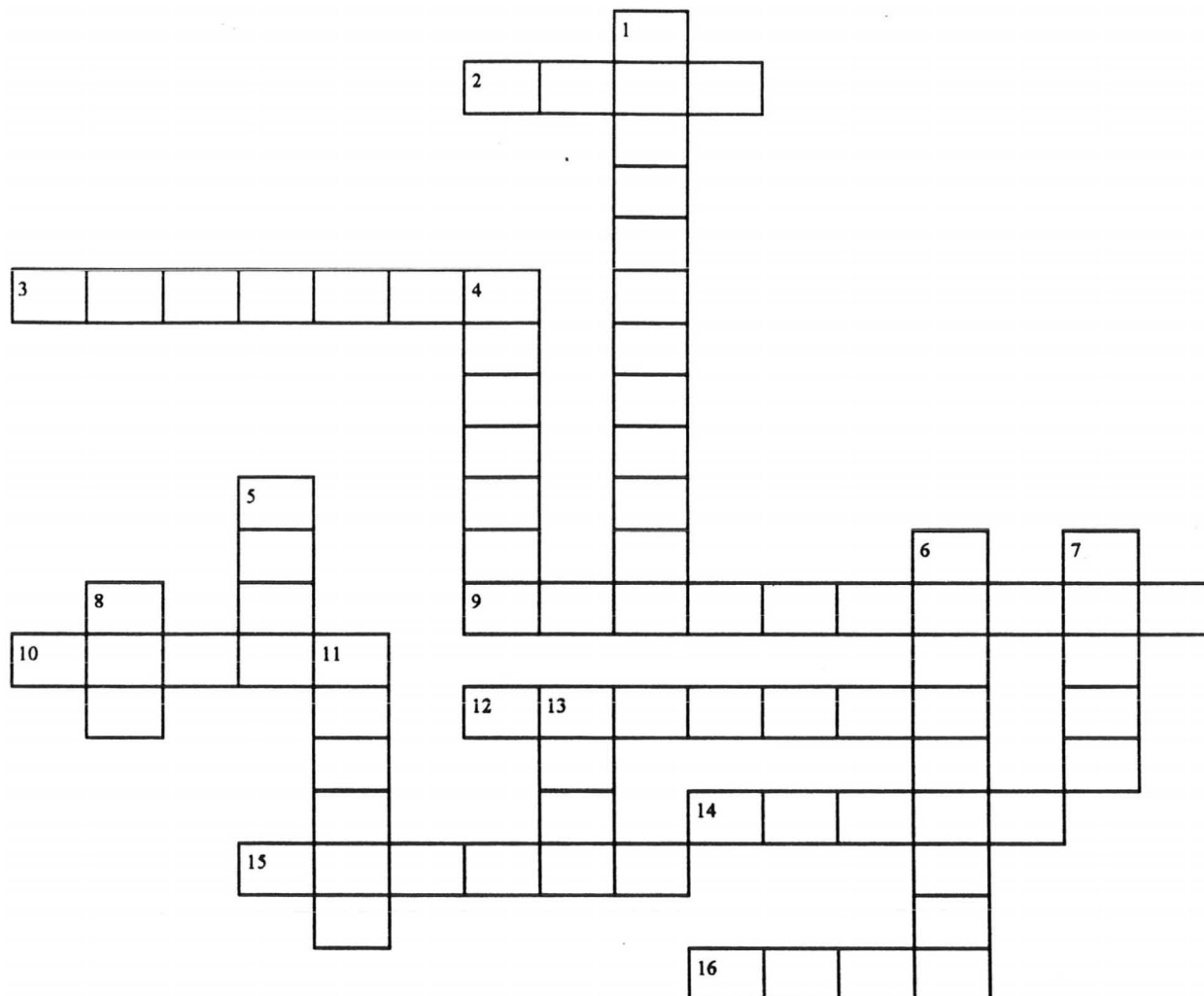
**TRUE OR FALSE**

11. Tobacco kills more Canadians than car accidents, suicide, murder, aids, and drugs combined. **T**
12. Most smokers do not want to quit. **F**
13. Nicotine is not as addictive as heroine or cocaine. **F**
14. People from Hamiklton smoke more than other Canadians. **T**
15. It can take only one cigarette to get hooked. **T**

## FACTS AND STATS



TOBAC-NO!



## ACROSS CLUES

2. Nicotine is also called the \_\_\_\_\_.
3. A poison used to kill weeds and insects
9. Most smokers started in \_\_\_\_\_ school.
10. Tobacco is the leading cause of preventable \_\_\_\_\_ in Canada.
12. \_\_\_\_\_ is used in fertilizer, explosives, and cleaning fluid.
14. Tobacco kills more Canadians than all other \_\_\_\_\_ combined.
15. Tar, the sticky, black substance is also known as the \_\_\_\_\_.
16. There are about \_\_\_\_\_ thousand chemicals found in tobacco.

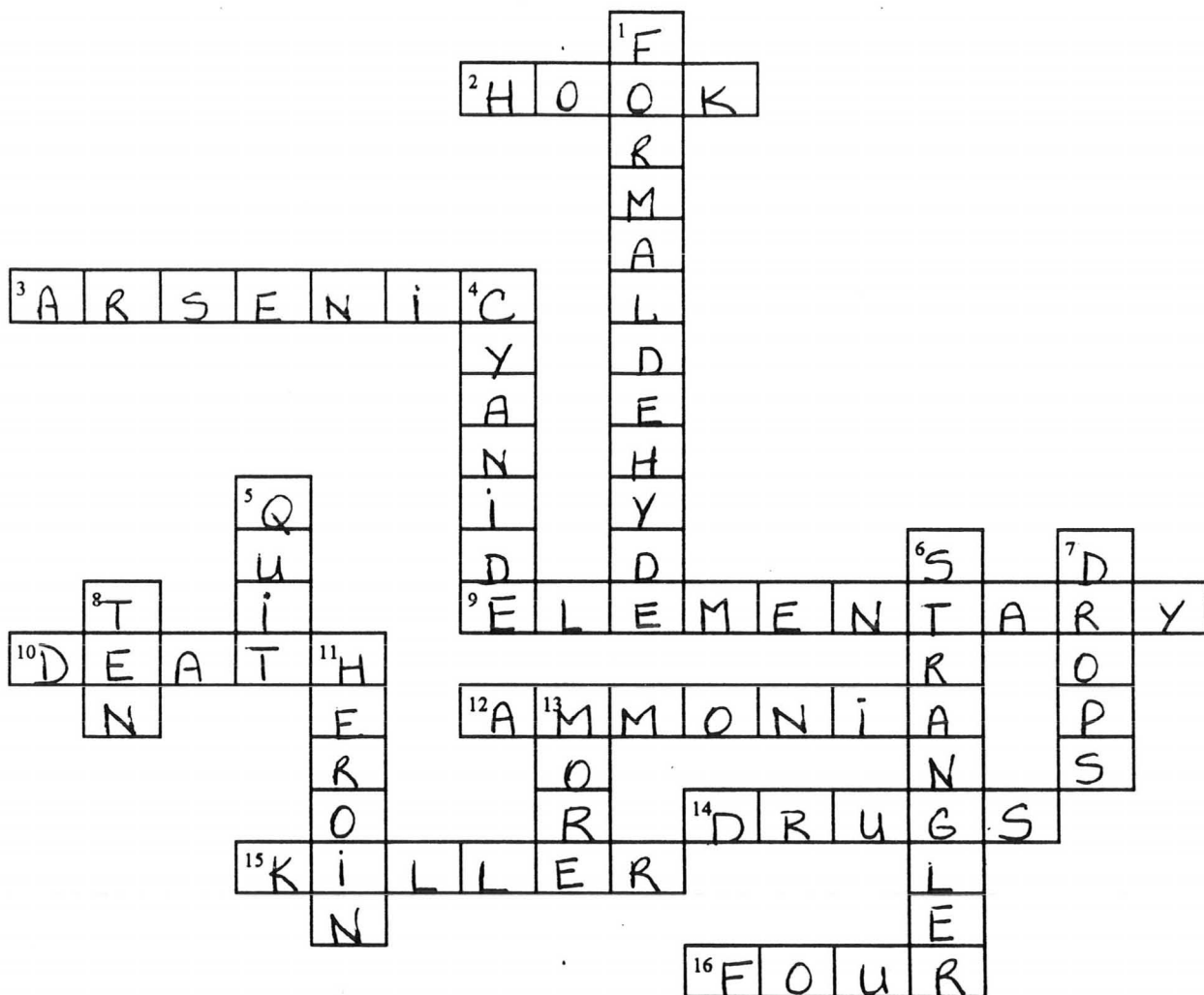
## DOWN CLUES

1. A poison used to preserve dead animals.
4. A poison used by many murderers in many detective stories.
5. Most smokers would like to \_\_\_\_\_.
6. Carbon monoxide, a poison that takes the place of oxygen in the blood is also known as the \_\_\_\_\_.
7. Just a few \_\_\_\_\_ of nicotine can kill you.
8. Each cigarette can shorten your life by as much as \_\_\_\_\_ minutes.
11. Nicotine is as addictive as \_\_\_\_\_.
13. Teenage girls smoke \_\_\_\_\_ than teen age boys.

## FACTS AND STATS



TOBAC-NO!



## ACROSS CLUES

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KEY CONCEPT

## CIRCULATORY AND RESPIRATORY SYSTEMS

## LESSON TWO



TOBAC-NO!

### LESSON TWO

#### SPECIFIC LEARNING OUTCOMES:



Students will identify and describe the major parts of the circulatory and respiratory systems as they relate the body's needs and functions.

#### RESOURCES:

- Copies of lesson 1 cross-word puzzle (see indicators of students achievement)
- Heart and Lungs Play Ball video
- Copies of Heart and Lungs question sheet
- Copies of Heart and Lungs fill in the blanks activity sheet
- Copies of anatomy diagram

#### STRATEGIES:

##### 1. TOBAC-NO! CROSS-WORD:

As an indicator of student achievement for Lesson 1, ask students to complete the cross-word puzzle.

##### 2. INTRODUCTION

Ask the students the following question:

If a friend said he had a sore knee and you wanted to see if anything looked abnormal about it, what could you do?

## CIRCULATORY AND RESPIRATORY SYSTEMS

### LESSON TWO



TOBAC-NO!

ANSWER: Compare the sore knee to the healthy knee to see if one was red, swollen, etc.(compare the abnormal to the normal).

From this you are trying to impress on the students that it is important to understand the normal structure and function of the cardio-respiratory systems in order to appreciate the abnormal effects caused by smoking.

#### 3. BREATHING ACTIVITY:

Ask students to hold their breath and see what happens. They will describe their discomfort and this is a good lead-in to talking about how the lungs deliver oxygen and get rid of carbon dioxide.

Students could also quickly do the activity where they breathe in holding their rib cage. They should notice the movement of their chest and abdomen.

#### 4. HEART AND LUNGS PLAY BALL - VIDEO:

Tell the students that they are going to watch a video which explains how the circulatory and respiratory systems work together to help us function on a daily basis. The video is about a young girl who is trying out for her local baseball team. The heart and lungs are animated characters who interject regularly during the story to describe themselves and explain how they work hard to deliver oxygen to the baseball players' muscles as they swing at the ball and run hard to get to the bases.

There are several possible follow-up activities for this video:

- i) Heart and Lungs Play Ball question sheet



## CIRCULATORY AND RESPIRATORY SYSTEMS

## LESSON TWO



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and/or

ii) Heart and Lungs Play Ball fill in the blank activity

and/or

iii) Cardio-respiratory Anatomy Diagram

and/or

iv) Pulse activity

i) QUESTION SHEET

or

ii) FILL IN THE BLANK ACTIVITY

Distribute activity sheet i) or ii) to the students prior to viewing the video.

- Ask them to pre-read the activity and to find the answers while watching the film.
- For the fill in the blank activity it would be useful to watch the section that covers the path of oxygen twice.
- Pause on occasion to verify that students are following and understanding.
- Students could be asked to complete this as a partner activity before taking it up with the class as a group.

iii) ANATOMY DIAGRAMS:

Distribute the anatomy diagram and ask students to:

- label the parts of the cardio-respiratory system.
- trace the path of oxygenated blood using a red arrow and trace the path of deoxygenated blood using a blue arrow.

## CIRCULATORY AND RESPIRATORY SYSTEMS

### LESSON TWO



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- There are several anatomy overheads included in the package. These could be used to reinforce some of the respiratory anatomy.

#### iv) PULSE ACTIVITY:

- Review how to take a pulse.
- Place the middle finger of their right hand lightly on the left wrist - on their thumb side. Ask the children if they can feel the pulsation on their finger tips.
- Have the students sit still for one minute so that their pulse settles down to a steady beat.
- Using a clock or watch that shows seconds, record the number of times the pulse beats in a minute.
- Run on the spot for three minutes and then take their pulse again.
- Rest for a few minutes and take their pulse again.

Have student recall the effect of exercise on the heart beat (pulse). Discuss that it increases because the heart has to work faster and harder to bring oxygen to different parts of the body.

#### 4. CILIA:

This topic is not covered in the video, but it is important to introduce it to the students. Explain the following:

- The trachea and bronchioles are lined with millions of microscopic CILIA.

## CIRCULATORY AND RESPIRATORY SYSTEMS

### LESSON TWO



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- The CILIA are like fine hairs
- The CILIA beat back and forth, 10 times a second, 24 hours a day.
- The beating of the CILIA keeps the mucus moving inside the trachea and bronchioles.
- The MUCUS traps dirt, dust, smoke, etc.. so that it can be removed from the lungs.
- The MUCUS flows to the throat where it can be swallowed.
- the CILIA sweep our respiratory system clean.
- Reinforce this information by asking students to complete the fill in the blanks activity sheet on CILIA.

#### 5. CILIA ACTIVITY:(optional)

- Sprinkle some salt onto the desks of several students.
- Tell them to think of this as the dust that enters their trachea.
- Ask them to use a part of their body or a classroom object to simulate the action of the cilia.
- A simple solution would be to wiggle their fingers and brush the salt away with their finger tips.
- This demonstrates the sweeping action of the cilia.

#### INDICATORS OF STUDENT ACHIEVEMENT

1. Students will label the diagram of the cardio-respiratory system with 90% accuracy.
2. Students will complete the activity "Unscramble the Path of Oxygen" with 100% accuracy (see lesson 3).



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## HEART AND LUNGS PLAY BALL

- Name the major team members of the respiratory and circulatory systems.
- Which body part acts most like the team coach?
- How many chambers are in the heart?
- What parts of the respiratory system are like branches? like grapes?
- What is oxygen used for in the body?
- Which cells in the blood act like postmen?
- What is the role of the blood vessels?
- What machine could you compare the heart to?
- How do the heart and lungs work together?
- How do healthy living and physical activity help these systems work better?

CIRCULATORY AND  
RESPIRATORY SYSTEMS

LESSON TWO



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## HEART AND LUNGS PLAY BALL

The strongest muscle in your body is the \_\_\_\_\_. On average, it beats \_\_\_\_ times per minute.

Your lungs breathe in air that contains \_\_\_\_\_ or  $O_2$ , which fills up little \_\_\_\_\_ in the lungs. Then oxygen passes from the air sacs into small \_\_\_\_\_ in the lungs where \_\_\_\_\_ pick it up and take it to the heart.

The heart has \_\_\_\_\_ chambers. The two lower chambers are called \_\_\_\_\_. They do the \_\_\_\_\_. The two upper chambers, called \_\_\_\_\_, \_\_\_\_\_ the blood. The oxygen rich blood comes from the lungs into the \_\_\_\_\_. Then, the blood passes down a one way valve into the extra strong \_\_\_\_\_ which pumps the blood all over the body carrying oxygen to every cell.

The largest artery in the body is called the \_\_\_\_\_. The blood goes through the aorta to smaller arteries which carry it to tiny blood vessels called \_\_\_\_\_. \_\_\_\_\_ use up the oxygen to burn up food which produces energy so you can run, jump, play and think. This process produces \_\_\_\_\_ or  $CO_2$ . Since our body does not need  $CO_2$ , it is a waste product and our bodies get rid of it.

The \_\_\_\_\_ bring the  $CO_2$  back to the heart into the \_\_\_\_\_. \_\_\_\_\_ and then it goes into the \_\_\_\_\_ and back to the lungs. Then your lungs breathe out the  $CO_2$ . You then inhale fresh  $O_2$  and the process begins again.



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## HEART AND LUNGS PLAY BALL

The strongest muscle in your body is the heart. On average, it beats 75 times per minute.

Your lungs breathe in air that contains oxygen or  $O_2$ , which fills up little air sacs in the lungs. Then oxygen passes from the air sacs into small vessels in the lungs where red blood cells pick it up and take it to the heart.

The heart has 4 chambers. The two lower chambers are called ventricles. they do the pumping. The two upper chambers, called atria, receive the blood. The oxygen rich blood comes from the lungs into the left atrium. Then, the blood passes down a one way valve into the extra strong left ventricle which pumps the blood all over the body carrying oxygen to every cell.

The largest artery in the body is called the aorta. The blood goes through the aorta to smaller arteries which carry it to tiny blood vessels called capillaries. Muscle cells use up the oxygen to burn up food which produces energy so you can run, jump, play and think. This process produces carbon dioxide or  $CO_2$ . Since our body does not need  $CO_2$ , it is a waste product and our bodies get rid of it.

The veins bring the  $CO_2$  back to the heart into the right atrium and then it goes into the right ventricle and back to the lungs. Then your lungs breathe out the  $CO_2$ . You then inhale fresh  $O_2$  and the process begins again.

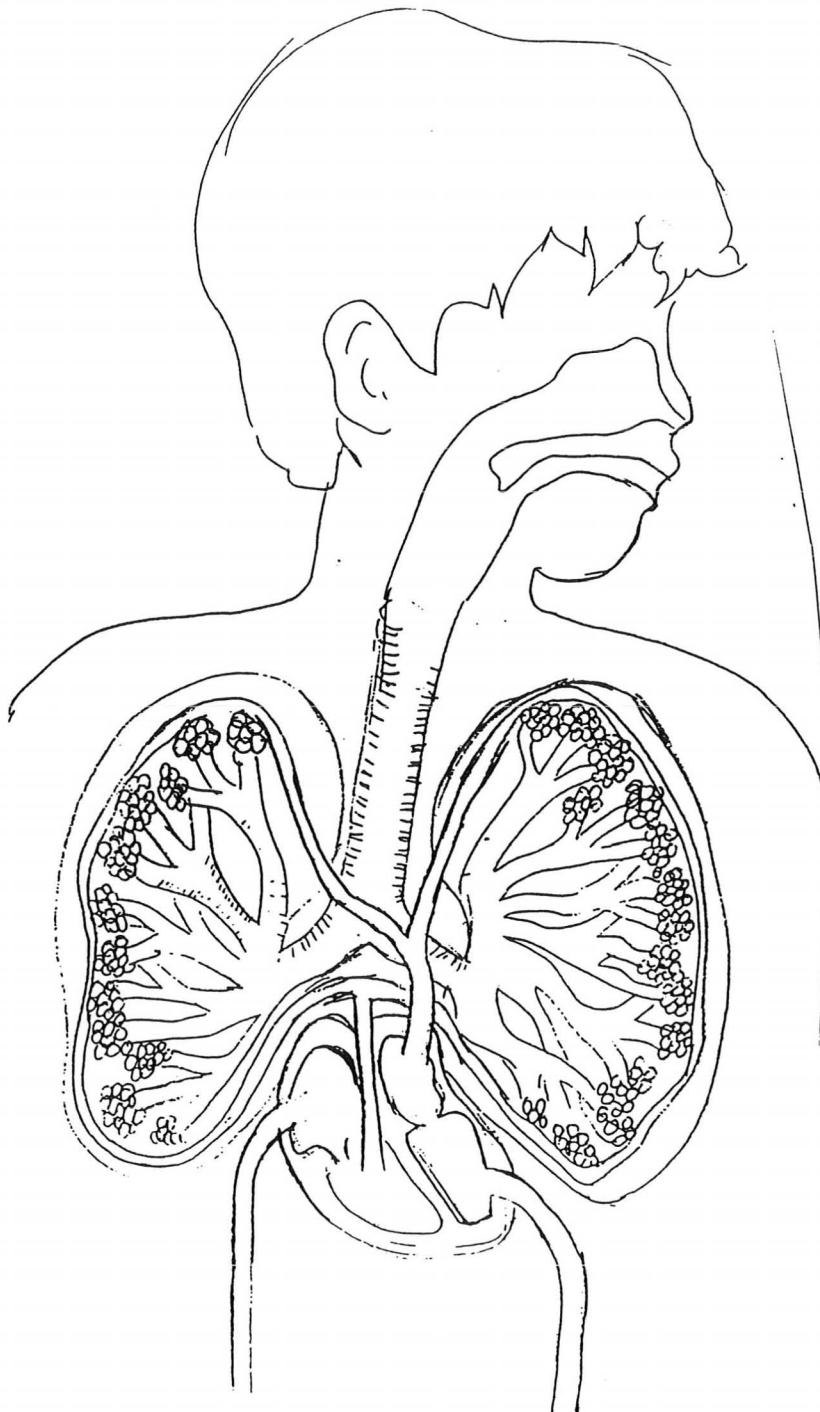
CIRCULATORY AND  
RESPIRATORY SYSTEMS

LESSON TWO



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LABEL THE PARTS OF THE RESPIRATORY AND CIRCULATORY SYSTEMS.

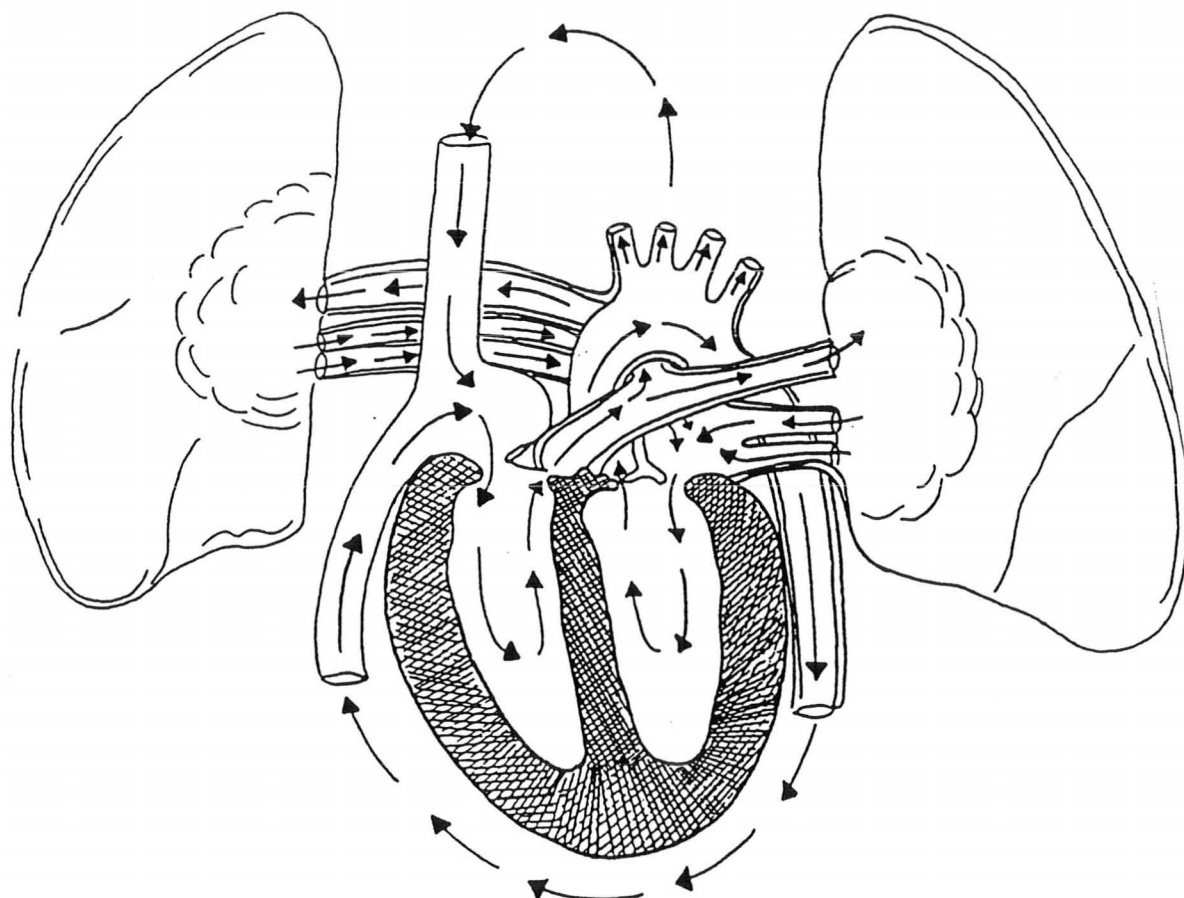


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RESPIRATORY SYSTEMS

LESSON TWO



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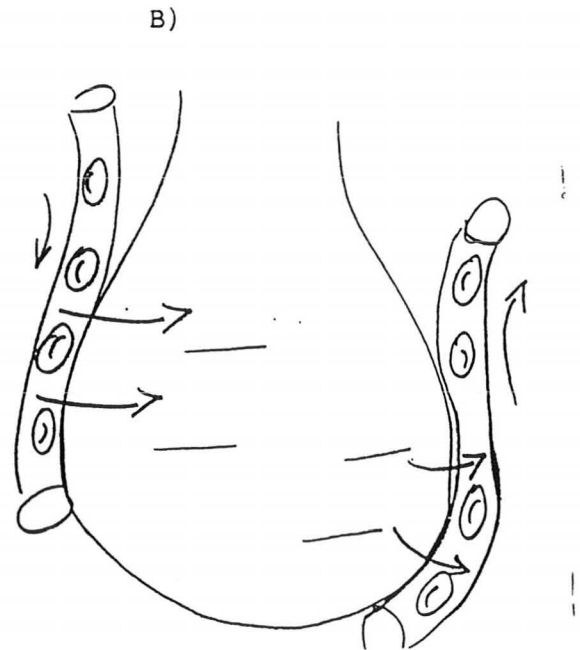
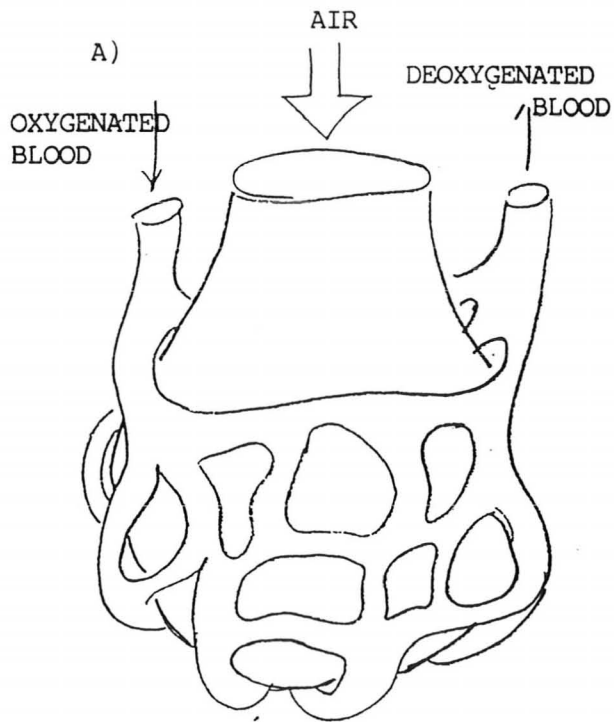
# CIRCULATORY AND RESPIRATORY SYSTEMS

## LESSON TWO



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HERE IS A CLOSE UP VIEW OF 2 ALVEOLI SURROUNDED BY CAPILLARIES.  
IN DIAGRAM B) IDENTIFY THE WASTE PRODUCT THAT ENTERS THE ALVEOLI.  
IDENTIFY THE GAS THAT EXITS THE ALVEOLI.



CIRCULATORY AND  
RESPIRATORY SYSTEMS

## LESSON TWO



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Cilia

Fill in the blanks.

1. The \_\_\_\_\_ and \_\_\_\_\_ are lined with millions of microscopic cilia.
2. The cilia are like fine \_\_\_\_\_.
3. The cilia beat \_\_\_\_\_ and \_\_\_\_\_, 10 times a second.
4. The beating of the cilia keeps the mucus moving.
5. The mucus traps \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ so that it can be removed from the lung.
6. The mucus flows to the throat where it can be \_\_\_\_\_.
7. The cilia \_\_\_\_\_ our respiratory system clean.

## Cilia

Fill in the blanks.

1. The trachea and bronchioles are lined with millions of microscopic cilia.
2. The cilia are like fine hairs.
3. The cilia beat back and forth, 10 times a second.
4. The beating of the cilia keeps the mucus moving.
5. The mucus traps dirt, dust, and smoke so that it can be removed from the lung.
6. The mucus flows to the throat where it can be swallowed.
7. The cilia sweep our respiratory system clean.



KEY CONCEPT

## PHYSICAL AND SOCIAL CONSEQUENCES OF SMOKING

### LESSON THREE



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### LESSON THREE

#### SPECIFIC LEARNING OUTCOMES:



1. Students will identify and classify the physical and social effects of smoking.
2. Students will demonstrate that they value their health and that of others.

#### RESOURCES:

- Copies of Unscramble the Path of Oxygen activity sheet
- Ministry video "Quick Time"
- ARF booklets
- Cancer Society pictures of healthy and diseased lungs
- Plastic straws
- Cancer Society simulated lungs
- Stop watch or clock with second hand

#### STRATEGIES:

##### 1. UNSCRAMBLE THE PATH OF OXYGEN:

As an indicator of student achievement for lesson 2, distribute the activity sheet titled Unscramble the Path of Oxygen. Ask students to complete the activity individually, in order to demonstrate that they have grasped the concepts of the cardio-respiratory system.

PHYSICAL AND SOCIAL  
CONSEQUENCES OF SMOKING

LESSON THREE



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2. QUICK TIME VIDEO CLIP:  
PREVIEWING ACTIVITY

- Explain to students that their knowledge of the circulatory and respiratory systems will help them understand the negative effects of smoking on the body.
- Briefly discuss the concept of physical (short-term and long-term) and social consequences. Discuss why young people are not usually too concerned about long-term consequences.
- Inform students that they will watch another short video clip, "Quick Time", where a young girl inhales cigarette smoke and transforms before their eyes. Many of the changes are not visible from the outside. Ask what students think is happening inside the girl's body.

FOLLOW-UP OPTIONS:

- a) brainstorm consequences as a class.
- b) brainstorm consequences in pairs or groups.
- c) use the section from the ARF booklet "WHAT IT DOES" to get students started with their list of consequences.

3. CLASSIFYING ACTIVITY:

- Once a comprehensive list has been compiled, ask students (again as a class, in groups or individually) to classify according to physical short-term, physical long-term and social effects.
- The outcome of the classification activity should resemble the

PHYSICAL AND SOCIAL  
CONSEQUENCES OF SMOKING

LESSON THREE



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following:

SHORT TERM CONSEQUENCES:

- lungs receive less oxygen
- faster breathing
- faster heart beat
- increased blood pressure
- increased muscle tension
- tar deposits in lungs (slows down cilia action)
- irritated throat - coughing
- decrease in skin temperature
- stuffy nose

LONG TERM CONSEQUENCES:

- difficulty breathing
- chronic cough
- increased risk of lung diseases such as emphysema
- increased risk of cancers (bladder, lung, mouth, oesophagus, throat)
- increased risk of heart disease and strokes
- frequent colds
- slower healing ability
- decreased sense of smell and taste
- premature wrinkling of skin

## PHYSICAL AND SOCIAL CONSEQUENCES OF SMOKING

### LESSON THREE



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#### SOCIAL CONSEQUENCES:

- smelly hair and clothing
- bad breath
- yellow teeth and fingers

When discussing the long-term effects it could be effective to show students actual pictures comparing healthy lungs and hearts to diseased organs (see Cancer Society resources).

Briefly discuss which effects concern teenagers compared to the effects that might concern an older person.

#### 4. ILLUSTRATE THE EFFECTS OF SMOKING:

This activity can be done in place of the preceding classifying activity. Ask students to sketch a smoker and to include as many of the effects of smoking as they can. As in the video, many of the effects will be difficult to represent visually. Perhaps they could make their sketch transparent so that some of the internal changes could be highlighted.

#### 5. EXPERIMENTS:

Tell students that they will now attempt some experiments to simulate some of the physical effects of smoking. The class can complete one or more of these activities depending on time available.

## PHYSICAL AND SOCIAL CONSEQUENCES OF SMOKING

### LESSON THREE



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#### i) SMALL DRINKING STRAW ACTIVITY:

Ask students if they know what it feels like to have trouble breathing.

Hand out small drinking straws (an alternative is to make a fist and breathe through the "tiny airway").

Have students jog on the spot while holding their nose and breathing through the straw (for one minute).

When they stop jogging on the spot and their breathing returns to normal, ask the students what happened when they did this. Discuss that while jogging their hearts beat faster and stronger, and their respirations increase. This is also what smoking does to their heart and lungs. So, if they add exercise (by just having to walk up stairs or hurry across the street) and if their lungs are damaged from smoking, it always feels like they are breathing through the small straw.

#### ii) CANCER SOCIETY SIMULATED LUNGS:

The Cancer Society provides a kit which includes a simulated healthy and diseased lung. Students can use their straws to blow into these lungs and compare the lung volume.

#### 4. JOURNAL ENTRY SUGGESTIONS:

Design a cigarette package which includes a warning message to smokers. Use your knowledge of physical effects to help you.

In your own words, make a promise to yourself not to become a smoker. Here is an example.

I, Jason, want to stay healthy and I promise to stay smoke-free!



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## HEART AND LUNGS PLAY BALL

Can you place in the *correct order* the path of oxygen through the body?

1. Oxygen enter the alveoli. \_\_\_\_\_
2. Vessels carry carbon dioxide to the heart. \_\_\_\_\_
3. Oxygen enters the nose and mouth. \_\_\_\_\_
4. Vessels carry oxygen to the heart. \_\_\_\_\_
5. Oxygen enters the trachea. \_\_\_\_\_
6. Vessels carry oxygen to all cells of the body. \_\_\_\_\_
7. Carbon dioxide enters the right side of the heart. \_\_\_\_\_
8. Oxygen enters the bronchioles. \_\_\_\_\_
9. Oxygen enters the left side of the heart. \_\_\_\_\_
10. Vessels carry carbon dioxide to the lungs. \_\_\_\_\_
11. Oxygen enter the bronchi. \_\_\_\_\_
12. Carbon dioxide exits through the respiratory system. \_\_\_\_\_





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## HEART AND LUNGS PLAY BALL

1. Oxygen enter the alveoli. 5
2. Vessels carry carbon dioxide to the heart. 9
3. Oxygen enters the nose and mouth. 1
4. Vessels carry oxygen to the heart. 6
5. Oxygen enters the trachea. 2
6. Vessels carry oxygen to all cells of the body. 8
7. Carbon dioxide enters the right side of the heart. 10
8. Oxygen enters the bronchioles. 4
9. Oxygen enters the left side of the heart. 7
10. Vessels carry carbon dioxide to the lungs. 11
11. Oxygen enter the bronchi. 3
12. Carbon dioxide exits through the respiratory system. 12

### INDICATORS OF STUDENT ACHIEVEMENT

1. Students will produce a minimum list of 10 consequences of smoking.
2. Students will classify a list of effects with 80% accuracy.
3. Students will design a warning message for cigarette packages.
4. and/or
5. Students will make a private statement, not to smoke, in their journals.



KEY CONCEPT

## INFLUENCES AND PRESSURES TO SMOKE


## LESSON FOUR



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### LESSON FOUR

#### SPECIFIC LEARNING OUTCOMES:

-  1. Students will identify the major determinants of smoking onset (family, peers, media).

#### RESOURCES:

- Potato chips
- Smokes and Ladders Board Game
- Guest panel

#### STRATEGIES:

##### 1. POTATO CHIP GAME

- Conduct a brief discussion with the students about the topic of peer pressure.
- Tell them that they will participate in a game that simulates a pressure situation.
- In this role playing game, students are sitting in groups of 6 with a bowl of potato chips in the centre of each group. Each student receives instructions which only he/she will see.
- Tell them that they are to make up whatever response they can think of that follows their instructions.
- The game will go on for 5-10 minutes unless the instructors feels that the time frame should change.
- Encourage the students to be spontaneous in their responses and

## INFLUENCES AND PRESSURES TO SMOKE

### LESSON FOUR



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remind them that there are no right or wrong answers.

- This game gives the instructor a good chance to informally assess the students' assertiveness skills, which will direct the amount of time spent on the follow-up lessons (refusal skills).

For a synopsis of roles refer to Potato Chip Game Student Roles activity sheet.

The roles for each group should be assigned as follows:

- Do Not eat any chips - 1 student
- Do Not eat any chips ... at first - 1 student
- Take a chip now and then - 3 students

#### 2. POST GAME DISCUSSION:

Ask students some of the following questions:

- What did players feel at different stages of the game?
- How did others react to them?
- What responses worked?
- What did not work?
- What if you replaced the chips with cigarettes?
- Use this discussion as lead-in to what influences young people to take up smoking (peers, family, media, etc.). Also introduce and discuss the difference between direct and indirect pressures.

## INFLUENCES AND PRESSURES TO SMOKE

## LESSON FOUR



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### 3. GUEST PANEL:

- Invite a panel of high-school students (smokers and non-smokers) to address your class.
- The students could speak about what influenced their decision to take up smoking or not. They could also express how they have been affected by smoking and what their future plans are regarding cessation.

### 4. SMOKES AND LADDERS:

If time permits students could play this version of Snakes and Ladders developed by the Addiction Research Foundation.

### 5. JOURNAL ENTRY SUGGESTIONS:

Describe one form of direct pressure and one form of indirect pressure to smoke that you have experienced.

INFLUENCES AND PRESSURES  
TO SMOKE

LESSON FOUR



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POTATO CHIP GAME: STUDENT ROLES

Ensure that there are at least 5 or 6 students per group. Cut out the roles and distribute one to each student .



**DO NOT EAT ANY CHIPS**

***DO NOT*** let anyone else talk you into taking a chip. Your goal is to finish the game without eating any chips. Don't give in.



**DO NOT EAT ANY CHIPS .....AT FIRST**

Let the others know that you might try a chip, but don't take one right away.  
Finally, after a few minutes, give in, and have some chips. Now try very hard to convince anyone who isn't eating chips to have some. Don't let up! Your goal is to have everyone eating chips by the end of the game.

INFLUENCES AND PRESSURES  
TO SMOKE

LESSON FOUR



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**DO NOT EAT ANY CHIPS .....AT FIRST**

Let the others know that you might try a chip, but don't take one right away.

Finally, after a few minutes, give in, and have some chips. Now try very hard to convince anyone who isn't eating chips to have some. Don't let up! Your goal is to have everyone eating chips by the end of the game.



**TAKE A CHIP NOW AND THEN**

Try to convince anyone who isn't eating chips to have some. Use whatever arguments you can think of to convince them. Your goal is to have everyone eating chips by the end of the game. *Don't let up!*



**TAKE A CHIP NOW AND THEN**

Try to convince anyone who isn't eating chips to have some. Use whatever arguments you can think of to convince them. Your goal is to have everyone eating chips by the end of the game. *Don't let up!*

INFLUENCES AND PRESSURES  
TO SMOKE

LESSON FOUR



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**TAKE A CHIP NOW AND THEN**

Try to convince anyone who isn't eating chips to have some. Use whatever arguments you can think of to convince them. Your goal is to have everyone eating chips by the end of the game. *Don't let up!*



**TAKE A CHIP NOW AND THEN**

Try to convince anyone who isn't eating chips to have some. Use whatever arguments you can think of to convince them. Your goal is to have everyone eating chips by the end of the game. *Don't let up!*

INFLUENCES AND PRESSURES  
TO SMOKE

LESSON FOUR



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**INDICATORS OF STUDENT ACHIEVEMENT**

1. Students will participate willingly in the potato chip game and will contribute to the post-game and panel discussion.
2. Students will describe, in their journals, one example of direct pressure and one example of indirect pressure to smoke that they have experienced.





KEY CONCEPT

## REFUSAL SKILLS

## LESSON FIVE



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## LESSON FIVE

## KEY CONCEPT- REFUSAL SKILLS

## SPECIFIC LEARNING OUTCOMES:



1. Students will enhance their skills of assertiveness and behavioural control in order to resist the pressures to smoke.

## RESOURCES:

- Copies of the role-play scenarios

## STRATEGIES:

## 1. PEER ROLE PLAY:

- Discuss with students that not only is it important to understand what influences people to start smoking, it is critical to know how to resist these pressures.
- Remind students of the Potato Chip Game they played last class and ask them to watch the role playing to see if they can identify any refusal techniques.
- ask students from a senior class (grade 7 or 8)

Following the role play briefly list and discuss the refusal strategies. The list could



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include some of the following strategies which will be reviewed again in later grades.

- No Thanks Technique
- Giving A Reason Or Excuse Technique
- Broken Record Technique
- Walk Away Technique
- Avoiding The Situation Technique
- Cold Shoulder Technique
- Changing The Subject Technique
- Reversing The Pressure Technique
- Strength In Numbers Technique

***Emphasize that not everyone is comfortable saying no the same way.*** Certain strategies suit particular personalities. The important thing is to figure out how you are most comfortable saying no.

## 2. PEER ROLE-PLAY EXAMPLE:

Ask students from a senior class (grade 7 or 8) to role play the following scenario.

Your friend has invited you and another friend to sleep over at his/her place for the weekend. Your friend's parents leave to go out for dinner and your friend gets out a package of cigarettes.

You choose not to smoke.



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## 2. ROLE-PLAYS:

- Ask students how they could best prepare themselves for the time when someone offers them a cigarette and they want to say no.
- Some student may come up with the idea of role playing.
- Tell students that this is a very effective technique and introduce them to the **three basics** of role playing:
  - a) Concentrate on your role.
  - b) Use your body (appropriately) as well as your mouth.
  - c) Know when to stop.

Divide class into groups of 3 and distribute some of the sample scenarios or make up some role plays on your. Assign one person the role of **abstainer** and the other two students can act as **persuaders**.

## 3. JOURNAL ENTRIES:

- If a member of your family offered you a cigarette what would you say?
- Describe your personal refusal style?



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**INDICATORS OF STUDENT ACHIVEMENT**

1. Students will identify a minimum of three refusal strategies.
2. Students will apply refusal strategies to a simulated role-play.
3. Students will identify their personal refusal style in their journals.



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**ROLE PLAY SCENARIO - REFUSAL SKILLS**

You really look up to your older brother and sister. They are quite popular and always seem to be having fun. You sometimes feel hurt because they don't pay much attention to you.

One day, when your parents are out, they ask you if you would like to learn how to smoke and be cool like them. You say okay and take your first few drags. Suddenly you start to cough, your eyes and throat burn and the taste in your mouth is awful. Then you start to feel dizzy. Your brother and sister laugh and say it only feels that way at first. They urge you to keep trying.

You choose to say no.

**ROLE PLAY SCENARIO - REFUSAL SKILLS**

Your mother is always on your back. You get into an argument about not doing your homework or cleaning your room. She says you're grounded for the next week. You go to school and tell your friends how angry you are. Your friends say they have the same problems. One of them says she knows how to get back at parents. She suggests buying some cigarettes and smoking behind their backs. She says that will show our parents just how much they can control us.

You choose not to smoke.



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**ROLE PLAY SCENARIO - REFUSAL SKILLS**

You are meeting your friends at the mall. You are really excited to see Jason there. He is in grade eight and you have had a crush on him all year. Suddenly he comes over to talk to you.

You are having a great time until Sarah comes over and starts flirting with Jason. She tells Jason that she has some cigarettes and wants him to teach her how to blow smoke rings.

Jason is flattered and says sure. He asks if you want to learn how too. You know that if you refuse, he could start to ignore you.

You choose not to smoke.

**ROLE PLAY SCENARIO - REFUSAL SKILLS**

You are on your way home from school. You meet up with two older kids who are smoking. The older kids tease you and call you a chicken if you don't try it.

You choose not to smoke.



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**ROLE PLAYING SCENARIO - REFUSAL SKILLS**

You are a new kid in the school and you feel really out of place and alone. A group of classmates are walking home together and they ask you to come along. On the way home they start to smoke and offer you one. You say you don't smoke. They tell you that they can teach you. You really want to be accepted but...

You choose not to smoke.

**ROLE PLAY SCENARIO - REFUSAL SKILLS**

You are on the school basketball team. Your team wins the championship game and everybody wants to celebrate. The captain of your team pulls out a pack of cigarettes and offers one to you and your best friend. You can't believe your eyes. Doesn't he know that smoking could affect the team's performance? And what would the coach say or do if he found out?

You choose not to smoke.



KEY CONCEPT

## MEDIA INFLUENCES


## LESSON SIX



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## LESSON SIX

**SPECIFIC STUDENT OUTCOMES:**

-  1. Students will analyse tobacco advertising strategies and they will refute these media influences.

**RESOURCES:**

- Copies of magazine cigarette ads

**STRATEGIES:****1. ADVERTISING DISCUSSION:**

Discuss cigarette advertising by asking questions such as:

- Is tobacco advertising legal in Canada?
- No ... other impending legislation, federal, provincial, local.
- How, then, are Canadians exposed to advertising?
- (We are exposed to American magazines which contain a great deal of advertising. Also, Canadian companies advertise indirectly by sponsoring sporting and cultural events.)
- What strategies are used in ads?
- (Visual imagery and pictures of health and vitality often in pure pristine surroundings are used.)
- How are young smokers targeted?
- (Themes of ads are independence, autonomy, adventure. These appeal to adolescents who are trying to assert their autonomy. Characters such Old Joe (Camels) are also used.)





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## 2. AD ANALYSIS ACTIVITY:

Provide sample ads or ask students to find ads in magazines and analyze them. Ask students to:

- Describe the picture.
- Tell what the ad says about cigarettes.
- Who is the ad aimed at?
- What is the underlying message?

## 3. ANTI-SMOKING POSTER:

Ask students to develop an anti-smoking poster to refute the media influences.

One suggestion would be to take an ad and change it to truly represent what smoking stands for.

### INDICATORS OF STUDENT ACHIVEMENT

1. Students will successfully identify the message in 2 or more magazine ads.
2. Students will complete an anti-smoking poster.



KEY CONCEPT

## UNIT EVALUATION

## LESSON SEVEN



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**LESSONS SEVEN****SPECIFIC LEARNING OUTCOMES:**

- Students will demonstrate that they have acquired the knowledge, skills, and values that will enable them to remain or become non smokers.

**RESOURCES:**

- Unit test

**STRATEGIES:**

This test is not the only assessment tool that should be used to evaluate student achievement. Indicators of student achievement have been outlined for each lesson.



TOBAC-NO!

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**TOBACCO TEST**

a) Match the columns by writing the correct letter in space provided.

- |                    |       |                                     |
|--------------------|-------|-------------------------------------|
| 1. carbon monoxide | _____ | a. cleaning fluid                   |
| 2. cyanide         | _____ | b. killer                           |
| 3. nicotine        | _____ | c. preserves animals                |
| 4. arsenic         | _____ | d. strangler                        |
| 5. tar             | _____ | e. weed killer                      |
| 6. formaldehyde    | _____ | f. hook                             |
| 7. ammonia         | _____ | g. poison used in detective stories |

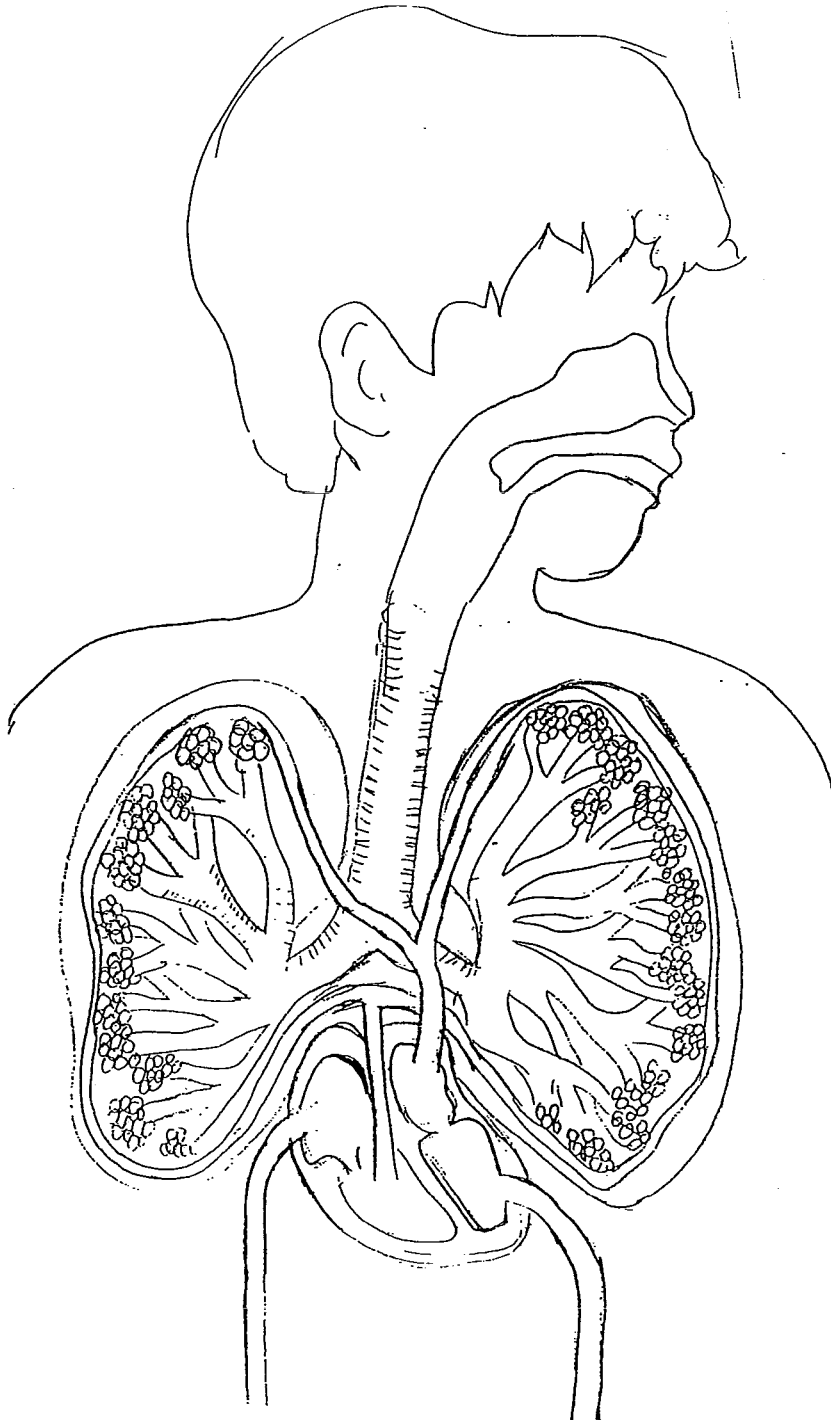
b) Fill in the blanks.

1. Tobacco kills \_\_\_\_\_ canadians every year.
2. There are about \_\_\_\_\_ chemicals in smoke.
3. People start smoking, on average, at age \_\_\_\_.
4. \_\_\_\_\_ % of teenage girls smoke.
5. It can take \_\_\_\_\_ cigarette(s) to get hooked.



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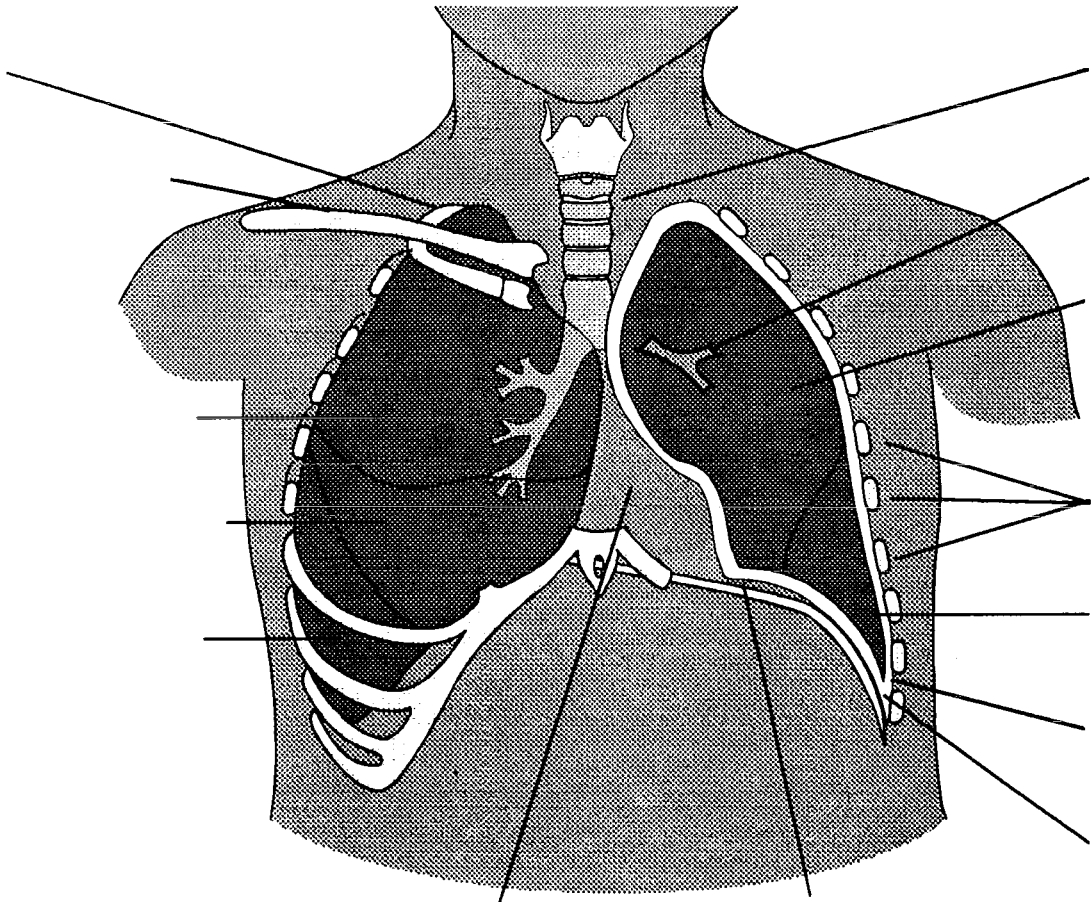
c) Label this diagram of the circulatory and respiratory systems.





TOBAC-NO!

c) Label this diagram of the circulatory and respiratory systems.



UNIT EVALUATION

LESSON SEVEN



TOBACCO

d) Write a health warning for a cigarette package. In your warning list 10 negative health effects of smoking.

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## UNIT EVALUATION

## LESSON SEVEN



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e) You are at a dance and the boy/girl you really like is there. At intermission you all go outside for air and the person you like pulls out a cigarette and offers you one. What would you say to turn it down?

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Even though you refuse, this person still pressures you. What could you say?

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Finally there are only 3 of you not smoking. Now more people are encouraging you to smoke. What could you say or do?

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## UNIT EVALUATION

## LESSON SEVEN



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f) Study the cigarette ad on the next page and answer the following questions:

1. What age group is this ad aimed at? what made you come to this conclusion?

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2. What is this ad trying to say about cigarettes?

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3. Change the ad by drawing or adding words to reveal the real truth about cigarettes.





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**INDICATORS OF STUDENT ACHIEVEMENT**

Students will complete the test with 80% accuracy.



KEY CONCEPT

## OTHER TOBACCO ISSUES

LESSON EIGHT,  
NINE and TEN

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## LESSON EIGHT, NINE, and TEN

**SPECIFIC LEARNING OUTCOMES:**

- Students will enhance their self directed learning skills.

**RESOURCES:**

- Various resources such as pamphlets, booklets, posters available from the Cancer Society, ARF, Lung Association, Heart and Stroke Foundation, etc.,

**STRATEGIES:**

If teachers have additional time available for this unit, they could use the last few lessons for students to choose from a list of ***OTHER ISSUES***. Students could do a short research/independent study in a particular area of interest. This could be done individually, in groups or perhaps using the jigsaw method. Some possible topics in ***other issues*** could be as follows:

- Second Hand Smoke
- Women And Smoking
- Pollution
- Smoking Policy
- Societal Issues
- Chewing Tobacco
- Major Smoking Related Diseases



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**INDICATORS OF STUDENT ACHIEVEMENT**

1. Students will choose a smoking related issue to research.
2. Students will select specific strategies for investigation of the issue.
3. Students will present their findings in an original and creative format.