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**Law and Justice Committee**  
**9/28/2009**  
**Alcohol and Drug Use by Minors**

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**Funding for Alcohol and Drug Use Prevention:**

- State General Fund: 0
- Federal: \$1,059,000 for 2009-2010 school year  
Source: U.S. Department of Education  
Safe and Drug Free Schools and Communities  
Issue: Proposed to be eliminated by Congress under reauthorization of the No Child Left Behind Act, effective October 2010

**Educational Resources for 2008-2009**

Traffic Education:

- 129 of 132 programs used the OPI model curriculum, which included the alcohol/drug use section: *Operator Fitness- Aggressive, Drowsy, Distracted, Alcohol, Drugs.*
- 9,115 students completed traffic education; 12, 901 high school students were eligible.
- Funded by a portion of driver's license fees. Revenue is estimated at \$800,000-900,000 for the 09-11 biennium.
- In 2009 schools were reimbursed \$77 per student; average program cost is \$419.

Safe and Drug Free Schools and Communities:

- \$1,059,000 distributed to 180 school districts for substance abuse and safety purposes
- Allowable expenses include professional development, substance and violence prevention programs, school resource officers, and other approaches that support safe school environments.

*The Montana Office of Public Instruction provides vision, advocacy, support  
to ensure that all students meet today's challenges and*

Law & Justice Interim Committee Meeting  
September 28 & 29, 2009

Exhibit #7

<b>Alcohol and Other Drug Use</b>	<b>1997</b>	<b>1999</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
<b>Percentage of students who . . .</b>							
Had at least one drink of alcohol during their life	84.3	86.1	82.9	81.1	77.8	77.8	75.7
Had first drink of alcohol before age 13	38.8	33.4	35.1	30.4	27.8	25.9	24.0
Had at least one drink of alcohol during the past 30 days ("current")	59.0	57.6	54.1	49.5	48.6	46.5	42.8
Had five or more drinks of alcohol in a row during the past 30 days ("binge drink")	44.1	43.6	41.4	37.3	34.4	32.7	30.1
Among current users of alcohol, the percent who usually got the alcohol they drank from someone who gave it to them during the past 30 days						38.9	37.9
Had at least one drink of alcohol on school property during the past 30 days	8.4	7.2	6.9	6.7	6.4	5.7	5.1
Used marijuana during their life	45.1	45.0	46.7	43.9	41.7	39.1	42.2
Tried marijuana before age 13	9.7	11.8	12.3	11.0	11.2	9.5	9.7
Used marijuana during the past 30 days ("current")	26.9	25.5	27.1	23.1	22.3	21.0	23.1
Used marijuana on school property during the past 30 days	8.9	7.5	7.7	6.4	6.1	5.0	5.8
Used any form of cocaine during their life	9.6	9.8	9.4	8.7	9.5	8.3	7.2
Used any form of cocaine during the past 30 days ("current")	4.1	4.0	4.0	3.8	4.0	2.9	2.8
Used inhalants during their life	20.8	16.5	15.0	13.8	15.4	16.2	14.2
Used heroin during their life		2.8	4.0	3.2	3.6	2.5	3.0
Used methamphetamines during their life		13.5	12.6	9.3	8.3	4.6	3.1
Used ecstasy during their life				6.1	6.3	6.0	7.3
Took steroid pills or shots without a doctor's prescription during their life	4.2	4.1	5.3	4.7	4.4	2.8	3.9
Used a needle to inject any illegal drug into their body during their life	2.8	2.4	2.7	2.6	3.6	2.0	3.7
Were offered, sold, or given an illegal drug on school property during the past 12 months	34.6	30.0	29.5	26.9	25.3	24.9	20.7



**Alcohol and Other Drug Use**

The percent of students who . . .	MT High School	Male	Female
Had at least one drink of alcohol on one or more days during their life	75.7	75.5	75.8
Had their first drink of alcohol other than a few sips before age 13	24.0	27.8	20.0
Had at least one drink of alcohol on one or more of the past 30 days	42.8	42.9	42.8
Had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days	30.1	30.2	30.0
Currently use alcohol and usually got the alcohol they drank from someone who gave it to them during the past 30 days	37.9	32.7	43.8
Had at least one drink of alcohol on school property on one or more of the past 30 days	5.1	6.1	3.9
Used marijuana one or more times during their life	42.2	43.1	41.3
Tried marijuana for the first time before age 13	9.7	11.2	8.2
Used marijuana one or more times during the past 30 days	23.1	23.7	22.5
Used marijuana on school property one or more times during the past 30 days	5.8	7.1	4.5
Used any form of cocaine, including powder, crack, or freebase one or more times during their life	7.2	9.5	4.7
Used any form of cocaine, including powder, crack, or freebase one or more times during the past 30 days	2.8	4.5	1.0
Sniffed glue, breathed the contents of aerosol cans, or inhaled any paints or sprays to get high one or more times during their life	14.2	12.8	15.7
Used heroin one or more times during their life	3.0	4.1	1.8
Used methamphetamines one or more times during their life	3.1	3.9	2.2
Used ecstasy one or more times during their life	7.3	9.1	5.2
Took steroid pills or shots without a doctor's prescription one or more times during their life	3.9	5.0	2.5
Used a needle to inject any illegal drug into their body one or more times during their life	3.7	4.6	2.8
Were offered, sold, or given an illegal drug on school property by someone during the past 12 months	20.7	24.5	16.4



## YRBS Trend Data – National and Montana

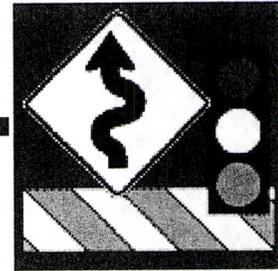
The Youth Risk Behavior Survey (YRBS) monitors priority health risk behaviors that contribute to the leading causes of death, disability, and social problems among youth and adults in the United States. The YRBS is conducted every two years during the spring semester and provides data representative of 9<sup>th</sup> through 12<sup>th</sup> grade students in public and private schools.

Selected Behaviors – Percentage of Students	Site	1995	1997	1999	2001	2003	2005	2007
		National Montana	21.7 31.9	19.3 32.0	16.4 23.1	14.1 19.8	18.2 17.8	10.2 13.9
Rarely or never wore a seat belt when riding in a car								
Drove when drinking alcohol during the past 30 days	National	15.4	16.9	13.1	13.3	12.1	9.9	10.5
	Montana	27.4	26.7	22.7	21.8	20.4	18.5	16.0
Rode with a driver who had been drinking alcohol during the past 30 days	National	38.8	36.6	33.1	30.7	30.2	28.5	29.1
	Montana	48.1	46.6	43.1	39.3	36.9	34.4	32.9
Carried a weapon (gun, knife, or club) during the past 30 days	National	20.0	18.3	17.3	17.4	17.1	18.5	18.0
	Montana	22.6	23.8	20.3	21.4	19.4	21.4	22.1
Did not go to school because they felt unsafe at school or on their way to or from school	National	4.5	4.0	5.2	6.6	5.4	6.0	5.5
	Montana	2.8	4.4	3.0	5.5	3.4	4.2	4.2
Attempted suicide during the past 12 months	National	8.7	7.7	8.3	8.8	8.5	8.4	6.9
	Montana	8.5	8.4	6.7	10.4	9.7	10.3	7.9
Current cigarette use (smoked cigarettes during the past 30 days)	National	34.8	36.4	34.8	28.5	21.9	23.0	20.0
	Montana	34.8	38.1	35.0	28.5	22.9	20.1	20.0
Current smokeless tobacco use (used dip or chewing tobacco during the past 30 days)	National	11.4	9.3	7.8	8.2	6.7	8.0	7.9
	Montana	22.8	21.0	18.2	15.7	13.2	14.8	12.9
Current alcohol use (drank alcohol during the past 30 days)	National	51.6	50.8	50.0	47.1	44.9	43.3	44.7
	Montana	58.2	59.0	57.6	54.1	49.5	48.6	46.5
Binge drinking (5 or more drinks within a couple hours during the past 30 days)	National	32.6	33.4	31.5	29.9	28.3	25.5	26.0
	Montana	43.1	44.1	43.6	41.4	37.3	34.4	32.7

Selected Behaviors – Percentage of Students	Site	1995	1997	1999	2001	2003	2005	2007
		National	25.3	26.2	26.7	23.9	22.4	20.2
Current marijuana use (used marijuana during the past 30 days)	Montana	20.1	26.9	25.5	27.1	23.1	22.3	21.0
Lifetime methamphetamine use	National	NA	NA	9.1	9.8	7.6	6.2	4.4
	Montana	NA	NA	13.5	12.6	9.3	8.3	4.6
Lifetime inhalant use	National	20.3	16.0	14.6	14.7	12.1	12.4	13.3
	Montana	20.9	20.8	16.5	15.0	13.8	15.4	16.2
Ever had sexual intercourse	National	53.1	48.4	49.9	45.6	46.7	46.8	47.8
	Montana	47.0	45.9	42.5	43.9	43.6	43.6	45.7
Had sexual intercourse with four or more persons during their life	National	17.8	16.0	16.2	14.2	14.4	14.3	14.9
	Montana	15.4	15.5	12.1	13.8	14.0	13.1	13.7
Used a condom during last sexual intercourse (among sexually active)	National	54.4	56.8	58.0	57.9	63.0	62.8	61.5
	Montana	53.9	48.6	56.6	57.5	59.6	61.3	63.3
Ate fruits and vegetables five or more times per day	National	NA	NA	23.9	21.4	22.0	20.1	21.4
	Montana	NA	NA	19.5	19.4	16.7	17.0	17.1
Watched television 3 or more hours per day	National	NA	NA	42.8	38.3	38.2	37.2	35.4
	Montana	NA	NA	24.4	23.5	25.3	26.3	22.2
Attended physical education classes daily	National	25.4	27.4	29.1	32.2	28.4	33.0	30.3
	Montana	34.3	32.7	35.8	31.3	32.6	34.0	32.8
Were obese (at or above the 95 <sup>th</sup> percentile for body mass index)	National	NA	NA	10.7	10.5	12.1	13.1	13.0
	Montana	NA	NA	10.8	11.3	11.6	12.8	13.3



## **Module 17 Lesson Plan**



### **Effect of Emotions, Disabilities and Alcohol and Drugs on the Driving Task**

#### **Content**

##### **Essential Knowledge and Skills 31-34**

- **SENSES USED WHILE DRIVING**
- **EMOTIONS**
- **PHYSICAL DISABILITIES**
- **ALCOHOL AND DRUGS' EFFECT ON THE BODY**
- **BLOOD ALCOHOL CONCENTRATION**
- **OTHER DRUGS**
- **EFFECT OF ALCOHOL AND DRUGS ON THE DRIVER**
- **ALCOHOL RELATED CRASHES IN MONTANA**
- **AVOID IMPAIRED DRIVERS ON THE ROAD**
- **ASSIGNMENT**
- **ASSESSMENT**

Instructional Topic	Content	Slide
<p>◆ <b>Effect of Alcohol on the Teen Brain</b></p>	<p>Tasks requiring divided attention (e.g. watching for oncoming traffic and changing traffic lights at the same time) are most sensitive to alcohol effects</p> <ul style="list-style-type: none"> <li>• Impairment of these tasks has been observed at blood alcohol levels of 0.02 percent, a blood alcohol level below that which would occur after consumption of a single standard drink for many people</li> </ul> <p>Alcohol can disrupt the adolescent brain's ability to learn life skills</p> <ul style="list-style-type: none"> <li>• Not only can heavy drinking during this time get the adolescent into trouble through behavior such as risk taking or drinking and driving, but it can also make the brain less able to learn important life skills that can help one avoid trouble as an adult</li> <li>• The brain goes through dynamic change during adolescence, and alcohol can seriously damage long- and short-term growth processes</li> </ul> <p>A teen's brain development and the refinement of pathways and connections continue until age 16, and a high rate of energy is used as the brain matures until age 20</p> <ul style="list-style-type: none"> <li>• Damage from alcohol at this time can be long-term and irreversible</li> <li>• In addition, short-term or moderate drinking impairs learning and memory far more in youth than adults</li> <li>... Adolescents need only drink half as much to suffer the same negative effects</li> <li>• New research indicates that teenagers who drink too much may lose as much as 10 percent of their brainpower—the difference between passing and failing in school and in life</li> </ul> <p>The American Medical Association (AMA) reports the following</p> <ul style="list-style-type: none"> <li>• Adolescent drinkers scored worse than non-users on vocabulary, general information, memory, memory retrieval and at least three other tests</li> <li>• Verbal and nonverbal information recall was most heavily affected, with a 10 percent performance decrease in alcohol users</li> <li>• Adolescent drinkers perform worse in school, are more likely to fall behind and have an increased risk of social problems, depression, suicidal thoughts and violence</li> <li>• Alcohol affects the sleep cycle, resulting in impaired learning and memory as well as disrupted release of hormones necessary for growth and maturation</li> <li>• Alcohol use increases risk of stroke among young drinkers</li> </ul>	<p>T17-26</p> <p>T17-27</p> <p>T17-28</p> <p>T17-29</p>
<p>◆ <b>Amount of Alcohol in Drinks Vary</b></p>	<p>Scientific evidence suggests that even modest alcohol consumption in late childhood and adolescence can result in permanent brain damage</p> <ul style="list-style-type: none"> <li>• All alcohol beverages have one thing in common: they contain alcohol</li> </ul> <p>The alcoholic content of some beverages is stated in terms of proof, a number which is actually double its alcoholic content</p>	

Instructional Topic	Content	Slide
<p>◆ Amount of Alcohol in Drinks Vary (Cont.)</p>	<ul style="list-style-type: none"> <li>• For example: if the proof is listed as 86, the alcohol content is 43 percent</li> <li>• For beer, the average alcohol content is 4.5 percent but it may vary from 2.1 percent to 5.2 percent</li> <li>• Crunch the numbers and know alcohol content</li> </ul>	<p>T17-30</p> <p>T17-31</p>
	<p>Table wines usually have an alcohol content of 12 percent but it can also range from 10 percent to 18 percent</p> <ul style="list-style-type: none"> <li>• A wine having an alcohol content greater than 18 percent is a fortified wine meaning that more alcohol was added</li> <li>• Wine coolers have an alcohol content which can vary from 4.9 percent to 6.0 percent</li> </ul>	<p>T17-32</p>
	<p>Know that not all drinks contain equal amounts of alcohol</p>	<p>T17-33</p>
	<ul style="list-style-type: none"> <li>• The alcoholic content of any one drink depends upon both the type and amount of liquor it contains</li> <li>• Some drinks, such as manhattans and martinis, contain two ounces of liquor</li> <li>• Some mixed drinks contain only one ounce of liquor</li> <li>• Drinks mixed by a host or hostess at a private party can be even stronger</li> <li>• Beer has the same effect as straight scotch</li> </ul>	<p>T17-34</p>
	<p><b>BLOOD ALCOHOL CONCENTRATION</b></p>	<p><b>Introduce, model, practice and discuss</b></p> <p>Blood Alcohol Concentration (BAC) is the ratio between alcohol and blood</p>
<p>The drinking driver is the number one cause of fatal traffic crashes nationally</p> <ul style="list-style-type: none"> <li>• Nearly 50 percent of all fatal collisions in the nation are alcohol related</li> <li>• All 50 states and the District of Columbia have laws defining drinking and driving as a crime to drive with a blood alcohol concentration (BAC) at or above a prescribed level, usually 0.08 percent</li> <li>... All but three states use 0.08 percent as the illegal level of intoxication for driving; the other three states use 0.10 percent</li> </ul>		<p>T17-36</p>
<p>Blood Alcohol Concentration (BAC), which may also be referred to as Blood-Alcohol Level (BAL), is a measure of the amount of alcohol in a person's blood expressed as a percent by volume</p> <ul style="list-style-type: none"> <li>• For example, if an individual has a BAC of 0.08 percent BAC (8/100 of 1 percent alcohol), this means that there is 8/10 of a drop of alcohol for every 1000 drops of blood in a person's body</li> <li>• BAC can be determined by testing a person's blood, breath, urine, or saliva</li> <li>... However, testing the breath is the quickest, least complicated and most frequently used test to determine BAC</li> </ul>		<p>T17-37</p>
<p>Tasks affected by BAC</p> <ul style="list-style-type: none"> <li>• Divided attention</li> <li>• Complex reaction time</li> <li>• Tracking and steering</li> <li>• Information processing</li> </ul>		<p>T17-38</p>

Instructional Topic	Content	Slide
◆ Factors Affecting BAC	<p><b>There are five factors that affect BAC</b></p> <ol style="list-style-type: none"> <li>1. Number of standard drinks</li> <li>2. Body weight</li> <li>3. Gender</li> <li>4. Time</li> <li>5. Food</li> </ol>	T17-39
◆ Number of Drinks	<p>Each drink consumed within an hour increases the BAC level</p> <ul style="list-style-type: none"> <li>• The more a person drinks in a fixed period of time, the higher the BAC will register</li> <li>• The faster a person drinks, the more quickly alcohol is available to be absorbed into the bloodstream</li> </ul> <p>... Beverages which contain more alcohol are usually absorbed more quickly and, thus, increase BAC</p>	T17-40
◆ Body Weight	<p>The heavier the person, the more alcohol it takes to raise the BAC</p> <ul style="list-style-type: none"> <li>• This is a factor because larger persons have more blood and other fluids than smaller persons and therefore alcohol will be more diluted in larger persons</li> <li>• If a smaller person tries to drink as much as the larger person, the BAC increases faster and the drinks will have a quicker effect</li> </ul> <p>Body fat also affects how quickly alcohol is absorbed</p> <ul style="list-style-type: none"> <li>• A person with more body fat will show signs of intoxication before a person with low body fat</li> <li>• For a 200 pound male (240 pound female) each drink raises the blood alcohol level by 0.016 percent; each hour reduces the blood alcohol level by about the same amount (0.015 percent)</li> <li>• For people of this weight, one drink per hour will result in little or no increase in their BAC</li> <li>• For a 100 pound male (120 pound female) each drink raises the BAC by 0.032 percent but each hour still reduces it by only 0.015 percent</li> </ul>	
◆ Gender	<p>Women generally have less water and more body fat per pound of body weight than men</p> <ul style="list-style-type: none"> <li>• Alcohol does not go into fat cells as easily as other cells, so more alcohol remains in the blood of women</li> <li>• This accounts for the fact that if a man and a woman of the same weight drink the same number of drinks, the woman's BAC would be higher</li> </ul>	
◆ Time	<p>Drinking three drinks in one hour will affect a person more than drinking three drinks in three hours</p> <ul style="list-style-type: none"> <li>• This happens no matter what the person weighs or what kind of alcoholic beverage is consumed</li> <li>• When alcohol is consumed over longer periods of time, the BAC rate also slows</li> </ul>	

Instructional Topic	Content	Slide
◆ Food	<p>Food in the stomach when alcohol is consumed causes alcohol to be absorbed more slowly, thus slowing down the rate and the amount of intoxication</p> <ul style="list-style-type: none"> <li>• Food means a good meal in the stomach (not a few potato chips) before drinking begins</li> <li>• The BAC can be about 75 percent of that which will result when drinking on an empty stomach</li> </ul>	
◆ Other Factors Affected by Alcohol	<p>There are other factors that influence a person's subjective experience of the effects of alcohol</p> <ul style="list-style-type: none"> <li>• <u>Mood</u>: a person who is depressed may feel the effects more quickly</li> <li>• <u>Tolerance</u>: a person who drinks regularly may show less outward effects because they learn to compensate for some of the effects of alcohol</li> <li>• <u>Fatigue</u>: a person who is tired may feel the effects of alcohol more quickly</li> <li>• <u>Experience</u>: How long and how much a person has been drinking</li> </ul>	T17-41 T17-42
◆ Elimination Rate	<p>The body disposes of most alcohol through oxidation (burning) in the liver</p> <ul style="list-style-type: none"> <li>• The oxidation takes place at a constant rate and nothing can be done to slow down or accelerate the process</li> <li>• It continues until all of the alcohol has been burned; in other words, only time will "sober" up a person</li> <li>• When alcohol reaches the liver, it immediately begins to be oxidized ... Alcohol is eliminated from the body at the rate of about one drink per hour</li> </ul> <p>The simplest way to think about blood alcohol levels is to compare the drinking process to filling a sink</p> <ul style="list-style-type: none"> <li>• You can run the tap as fast or as slow as you want, but the sink drain (in this case a very small drain), will allow it to empty only so fast</li> <li>• The "blood alcohol sink" will drain only at the rate of 0.015 percent BAC per hour</li> <li>• Only time can sober a person who has been drinking and it is a slow process</li> </ul>	T17-43 T17-44 T17-45 T17-46 T17-47 T17-48 T17-49 T17-50
EFFECT OF DRUGS ON THE BODY	<p>There are many types of drugs, legal and illegal, that can effect the ability to drive with reduced risks</p> <ul style="list-style-type: none"> <li>• Drug types are over-the-counter, prescription, stimulants, depressants or hallucinogens</li> </ul> <p>Driving after taking drugs can be just as deadly as alcohol</p> <ul style="list-style-type: none"> <li>• Drugs may cause a person to become sleepy and affects thinking or acting appropriately</li> </ul>	

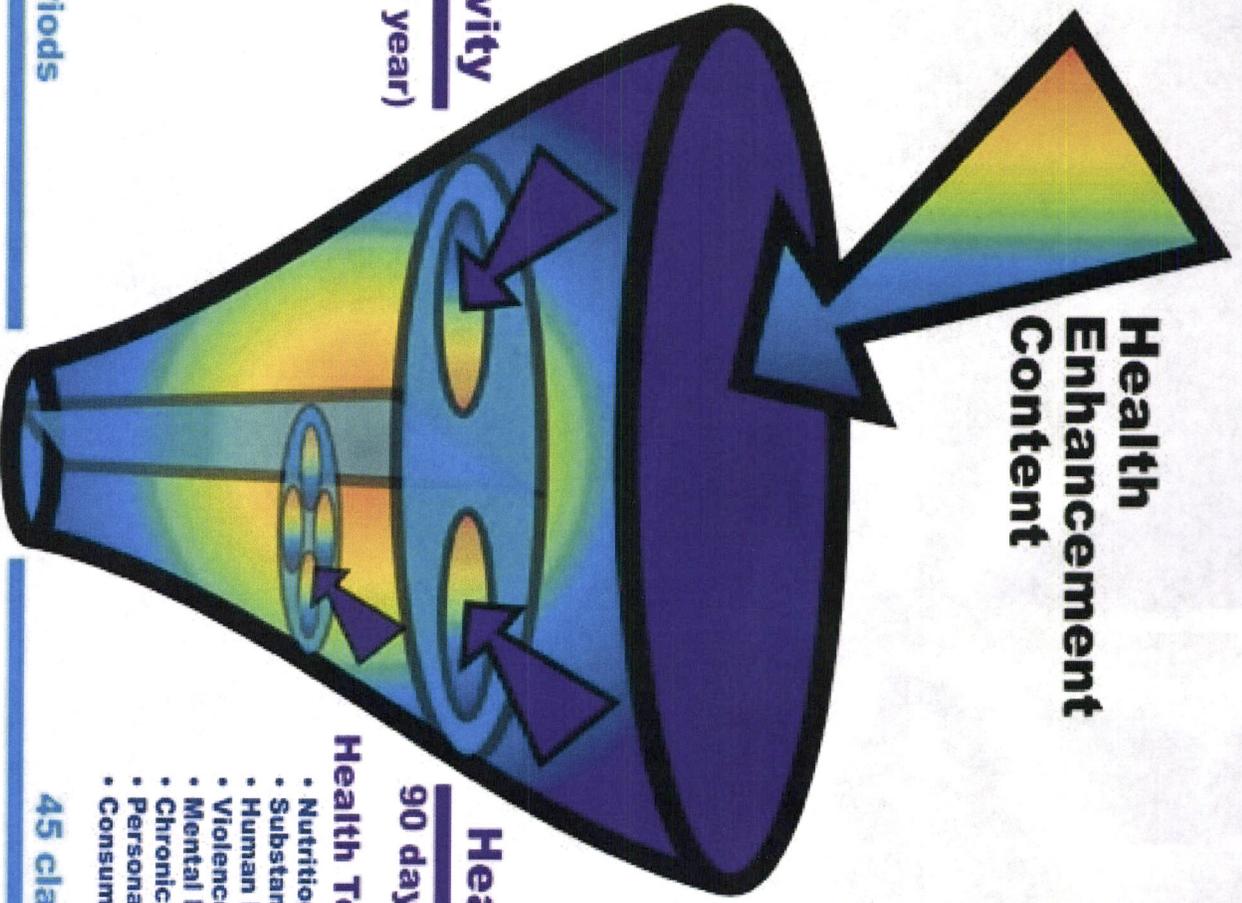
**Academic Requirements for Health Enhancement**  
(for a "typical" school... which does not exist)

	<i>Elementary</i>	<i>Junior High</i>	<i>High School</i>
<b>Grades</b>	K-6 (middle school 5-8)	7-8	9-12
<b>Requirement</b>	Program to enable students to meet the content and performance standards	One-half unit each year	One-half unit each year for two years
<b>Time</b>	No "seat time" requirement	112.5 minutes per week	112.5 minutes per week
<b>Content</b>	<p>The program is to include age-appropriate content in the following areas: physical activity, nutrition, alcohol/tobacco/drug use and abuse, family life and sexuality education, prevention and control of disease, accident prevention and safety, violence prevention, mental and emotional health, personal health, consumer health, community health and environmental health.</p> <p>Health education topic areas would include: nutrition, alcohol, drugs, tobacco, HIV/AIDS, sexuality, asthma, diabetes, cardiovascular disease, sun safety, disease control and prevention, accident and injury prevention, violence prevention (bullying, tolerance, character education, suicide prevention, etc.), mental and emotional health, personal health (oral health, etc.), consumer health (media literacy, health information resources, etc.), community health, and environmental health issues.</p>		
<b>Prioritizing Content (examples)</b>	Physical activity Accident/injury prevention Tobacco prevention Nutrition	Physical activity Tobacco prevention Drug/alcohol prevention Sexuality education	Sexuality education Nutrition education Drug/alcohol prevention Physical activity
<b>"Traditional" Day (examples)</b>	<p>Two-week rotating schedule: Week 1 = MWF for health education, TTH for physical activity Week 2 = MWF for physical activity, TTH for health education Repeat throughout the school year</p> <p>Nine-week rotation: Nine weeks of health education followed by nine weeks of physical activity, then repeat.</p>		
<b>"Typical" School Year (for students)</b>	180 days  No time requirement	180 days  One-half unit equals one-half year which is 90 days which is 90 class periods. If <i>health</i> and <i>PE</i> split the 90 class periods, then each will have 45 class periods in a school year.	180 days  One-half unit equals one-half year which is 90 days which is 90 class periods. If <i>health</i> and <i>PE</i> split the 90 class periods, then each will have 45 class periods in a school year.

Reference: Montana School Accreditation Standards and Procedures ARM 10.55.901-906

December 2003

# Health Enhancement Content



School Year - 180 days

## Physical Activity

90 days (1/2 unit per year)

45 class periods

School Year - 180 days

## Health Education

90 days (1/2 unit per year)

### Health Topics

- Nutrition
- Substance Use and Abuse
- Human Development and Sexuality Education
- Violence Prevention
- Mental Health and Suicide Prevention
- Chronic and Communicable Disease
- Personal, Community and Environmental Health
- Consumer Health (i.e, Media Literacy)

45 class periods

Source: Office of Public Instruction  
Health Enhancement & Safety



[opi.mt.gov](http://opi.mt.gov)

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