



## Grade 3 Sample Lesson Plan: Body System and Drugs

### **Description**

Please see attached handout for a lesson submitted by a Virginia teacher

### **Handout**

The next page includes a handout for the lesson. The handout is designed for print use only.



**GRADE: 3**  
Lesson 2

**Department of Teaching and Learning**  
**ATOD Health Education**

**TIME:**  
30 minutes



**LESSON FOCUS:**

Students identify the main body systems and describe how drugs and alcohol can affect these systems.

**STATE STANDARD:**

- 3.1. i Identify body systems affected by the use of alcohol, tobacco, inhalants, and other drugs.
- 3.3. e Describe the effects of nicotine, alcohol, and other drugs on body systems.

**DESCRIPTIVE STATEMENT:**

Drugs and alcohol affect the body in different ways. Students will identify the different body systems affected by the use of alcohol, tobacco, inhalants, and other drugs and the specific effects on them.



**LEARNING TARGET:**

I can identify the effects and side effects of drugs and medicines on the body systems.



**KEY TERMS:**

- Side effects
- Body systems
- Inhalant
- Depressant
- Stimulant



**MATERIALS NEEDED:**

- Documents appear at the bottom of the learning plan. Copies for Chromebooks can be found in Schoology. Documents needed include:
  - Graphic Organizer
  - Matching Side Effects to Body Systems
  - Exit ticket 3-2-1
- Strategies for lesson listed in **red** within the lesson. All strategy procedures listed at the bottom of the learning plan.
- Google Slides – “Alcohol, Tobacco, Vapor Products, and Inhalants” <http://bit.ly/2BrgnPD>



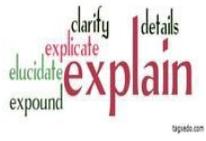
## LINK (activate prior knowledge/lesson intro)

### Think/Pair/Share

Teacher asks students to get a partner and name body systems related to the components of fitness they have learned in physical education (students will list muscular system, respiratory system, cardiovascular system). Then ask the students if they know the names of any other body systems they could add to the list.

Students are asked to generate with their partner, a list of drugs and medications they have seen around the house or on TV or the internet.

Teacher introduces the lesson for the day and gives the learning target: I can identify the effects and side effects of drugs and medicines on the body systems.



## ENGAGE AND EXPLAIN (direct instruction/guided practice):

### Graphic Organizer

Teacher distributes the graphic organizer and opens slide deck “Alcohol, Tobacco, Vapor Products, and Inhalants”: <http://bit.ly/2BrnPD>

Have students fill out their graphic organizer while providing facts about alcohol, tobacco, and inhalants.

Handout is listed at the bottom of the learning plan.

**(Slide 1)** Say to students: A drug is a substance that changes the way our minds and bodies work. All drugs effect our bodies when we take them. We learned that medicine is one type of drug but there are many other types of drugs. Alcohol, nicotine, which is in tobacco, and inhalants are also drugs.

Drugs can have short-term and long-term effects on body systems. Short-term effects are things that are temporary such as change of mood or behavior, loss of balance, nausea, and sleepiness. Long-term effects are things such as asthma, alcoholism, or cancer. On your graphic organizer, list the effects of the drugs as we discuss them on the various body systems and on behavior.

**(Slide 2)** Say to students: Let’s look at how various drugs effect the body, beginning with alcohol. Alcohol is a depressant. Depressants are drugs that slow down the way your body functions and impairs judgement. What characteristics do you see when someone drinks too much?

When a person drinks alcohol they may feel happy or excited at first but eventually that feeling changes. Alcohol is a mind-altering drug. It can affect a person by forgetting things that happened while drinking or it may cause them to make bad decisions. It can cause high blood pressure and a person’s heart to beat differently. Alcohol can also cause people to injure themselves because they lose their balance, blur vision, they may become nauseous, or even vomit from too much alcohol. If someone drinks alcohol too much it could lead to long-term effects such as alcohol addiction or alcoholism, liver damage, or even death.

On your graphic organizer, which of the body systems are affected by the use of alcohol? Allow students to share and point out that all four body systems are affected by the use of alcohol.

**(Slide 3)** Say to students: Nicotine is a stimulant. It is the substance found in cigarettes and is highly addictive. The actual heating of the nicotine creates tar, which leads to cancer and heart and lung disease. Nicotine travels through the body in the bloodstream and heads straight for the brain. Nicotine causes a

rush of adrenaline in the body that can cause short-term effects such as an increase in blood pressure and heart rate and difficulty breathing. The long-term effects can affect the heart, lungs, and arteries; causing heart attacks, heart disease, lung disease, and cancer.

Turn to a shoulder partner and identify the body systems effected by the use of tobacco? Allow students to share and point out the body systems effected by nicotine and tobacco use.

(Source: U.S. Department of Defense: Quit Tobacco; UCanQuit2.org  
<https://www.cdc.gov/tobacco/campaign/tips/quit-smoking/index.html>)

**(Slide 4)** Say to students: Vapor products produce an aerosol by heating a liquid such as e-cigarettes. E-liquids that are heated to create aerosol contain glycerol and propylene glycol that is found in antifreeze. These products require batteries that may explode.

**(Slide 5)** Say to students: Who can tell us what an inhalant is? Inhalants are items that contain gases that people can breathe in or inhale. Inhalants can be found in many household items such as paints, hair spray, gasoline, art and office supplies, and whipped cream dispensers. Inhalants starve the body of oxygen and force the heart to beat irregularly and more rapidly.

One of the unique things about inhalants is that they can cause serious damage to the body even on the first use. The short-term effects of an inhalant is similar to alcohol and other mind-altering drugs. People may have a feeling of happiness, dizziness, loss of balance, and maybe even experience hallucinations (seeing things that aren't really there). The long-term effects include damage to nerve fibers and brain cells, which can cause permanent difficulty with basic things like walking and talking and even cause sudden brain damage or death.

Which of the body systems displayed are impacted by the use of inhalants? Allow students to share and point out the body systems effected by the use of inhalants.



### **ACTIVE LEARNING (collaborative learning/work):**

Put students in groups of 3 or 4 and give them the handout, "Matching Side Effects to Body Systems".

**Handout is listed at the bottom of the learning plan.**

Students will look at the side effects listed at the bottom and match them to the different body systems on the handout. Students can use the information in their graphic organizers.

Discuss with the class the groups' different answers.



### **REFLECTION (individual work):**

Saying no to the use of alcohol, tobacco, inhalants or other drugs is a lifesaving refusal skill. You are in charge of the decisions you make when pressured to use alcohol, tobacco, inhalants or other drugs. What refusal skills would you use to say NO to risky situations where alcohol, tobacco, inhalants, and other drugs are involved?



### **LESSON CLOSURE:**

Discuss ways to say NO when pressured to use alcohol, tobacco, inhalants or other drugs. Examples include:

- Say “no” in a firm voice
- Give reasons why you are saying “no”
- Stay away from people who use drugs
- Tell your parents or a trusted adult if someone tries to pressure you
- Help your friends say “no” to things that may hurt them

**Exit Ticket: 3, 2, 1:** (This can be done with a partner or written out.)

- 3 body systems we discussed today
- 2 facts about drugs
- 1 question they still have from today’s lesson

**Handout is listed at the bottom of the learning plan.**

### **Strategies:**

#### **Think/Pair/Share**

- Pose a problem or question
- Provide individual think time
- Pair -- Tell students to discuss answers with partners.
  - Set a time limit
  - Consider having a stop signal
- Share -- Have students use active participation to share answers

#### **Graphic Organizers**

Good notes are the product of good listening or reading. Graphic organizers help students rank the importance of various elements contained in the lecture or text. The student learns to recognize the main ideas and details that generate meaning. A judgment can then be made by the student concerning how much detail to record in light of the assigned or expected outcome of the lecture or reading. In this way, the student gains control and becomes more efficient in the learning process. This strategy moves the student from a passive reader or listener to one actively involved with print or language. Note-taking is a link between thinking, comprehension, and long-term memory.

#### **3 - 2 - 1 (Exit Ticket):** (students write)

- 3 body systems we discussed today
- 2 facts about drugs
- 1 question they still have from today’s lesson

**Handouts:**

**Graphic Organizer**

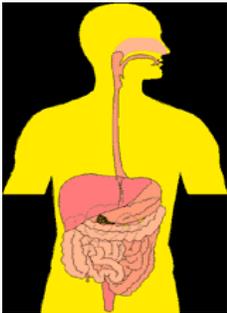
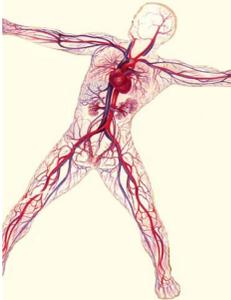
Type of Drug ↓	Effects on Body Systems				Effect of drug on Behavior ↓
	Nervous System	Muscular System	Circulatory System	Digestive System	
Alcohol					
Tobacco (nicotine)					
Inhalants and vapor products					
Opioids					

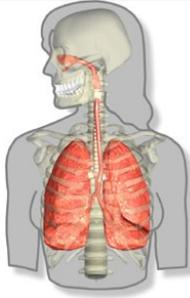
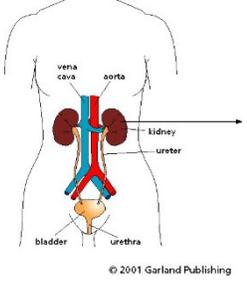
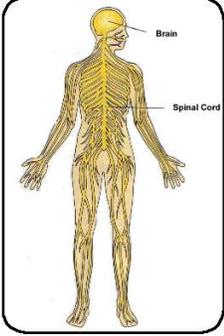
## Graphic Organizer Key

Type of Drug ↓	Effects on Body Systems				Effect of drug on Behavior ↓
	Nervous System	Muscular System	Circulatory System	Digestive System	
Alcohol					
Tobacco (nicotine)					
Inhalants and vapor products					
Opioids					



**Match the side effects listed at the bottom to the body systems.**

BODY SYSTEM	FUNCTION	Possible Drug Side Effects
Skeletal	 <p><u>Main Function:</u> Supports and protects the body</p> <p>HINT: movement</p>	
Muscular	 <p><u>Main Function:</u> Helps the body move</p> <p>HINT: muscular strength and endurance</p>	
Digestive	 <p><u>Main Function:</u> Breaks down food to make energy for the body</p> <p>HINT: energy balance</p>	
Circulatory	 <p><u>Main Function:</u> Carries O<sub>2</sub> and CO<sub>2</sub>, through the body</p> <p>HINT: Cardio endurance</p>	

Respiratory		<p>Function: takes in oxygen and removes carbon dioxide</p> <p>HINT: breathing</p>	
Excretory		<p>Function: removes waste from the body</p> <p>HINT: perspiration/hydration</p>	
Nervous		<p>Function: controls ALL the activities of the body</p> <p>HINT: decision-making</p>	

Match the side effects to **BODY SYSTEMS** above.

**Drowsiness**

**Frequent Urination**

**Loss of Balance**

**Difficulty Breathing**

**Muscular Pain**

**Weakness**

**Dizziness**

**Stomach ache**

**Sweating**

**Difficulty Thinking**

**Diarrhea**

**Rapid heartbeat**

**EXIT TICKET: 3, 2, 1**

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**3 body systems we discussed today:**

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**2 facts about drugs:**

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**1 question you still have from today's lesson:**

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