

Unit: Understanding the Risks of Substance Abuse – This unit addresses the physical and cognitive risks associated with drug abuse, underage alcohol consumption, and underage tobacco use. Specifically, the activities will highlight the ways in which substance use alters the brain and physical body, and the ways in which short and long-term substance use can lead to lasting negative health effects.

Course Alignment: HOPE-Physical Education (Core) (#3026010) & HOPE- PE Variation (# 1506320)

(☒ - indicates Florida Standards found in both HOPE Core and HOPE PEV)

Alignment to State Statute 1003.42.n: This subject matter falls within the domain of Florida statute 1003.42, section n, which addresses aspects of comprehensive health education and topics around “substance use and abuse.”

Unit Background Information: Understanding the Risks of Substance Abuse

Drug, alcohol, and tobacco use and abuse have long been critical health concerns in the United States. This has been particularly true when it comes to teenage demographics who are often seen as being at higher risk of participating in drug, alcohol, and tobacco use and abuse due to issues of early initiation through peer pressure, media influences, and other factors. Because the human brain is not fully developed until one is 25-27 years old, substance use and abuse during teenage years and early adulthood has been shown to have lasting detrimental effects on brain development and cognitive functioning, which in turn can create impairments in decision-making, self-regulation, mental and emotional health, and physical function in the body.

With this in mind, substance abuse education is essential for Florida’s teenage population. According to the 2017 Florida Youth Risk Behavior Survey (YRBS) data, 27% of Florida high school students report that they currently drink alcohol, and 20% currently use marijuana. Additionally, 17% of Florida high school students report being offered, sold, or given a drug on school property. While these statistics may seem high, there is good news: the majority of the trends around teen alcohol, drug, and tobacco use have improved over the last 10-20 years in Florida. This means that overall use and early initiation have decreased over time (with the exception of marijuana use).

Given the nature of peer pressure, media influences, and other factors that normalize teen drug, tobacco, and alcohol use, teenagers may receive messages that imply that “everyone is doing it”, but the reality in Florida is that much of teen substance use has decreased significantly overtime. These statistics and more from the Florida YRBS will be further explored in the Understanding the Risks of Substance Use and Abuse activity unit, with the intent of helping to dispel the “everyone is doing it” myth and to emphasize that healthy decision-making to abstain from substance use now is critical for health and wellness in the future. In this activity series, students will:

- (a) Identify general parts and functions of the brain; and discuss ways in which substance use and abuse could damage or interfere with normal brain development in teens and young adults

- (b) Examine specific types of substances (including alcohol, tobacco, marijuana, and opioids) and the influence each has on the brain and body
- (c) Discuss influences and reasons why young people might use substances and generate alternative options to promote health and wellness
- (d) Examine the 2017 YRBS data trends regarding substance use and abuse to note decreases in most reports of use in Florida teens in order to dispel the myth of “everybody is doing it” messaging

Lesson 1

My Well-Being: What is your 2017 YRBS knowledge?

Florida Standards

HE.912.B.6.1 Evaluate personal health practices and overall health status to include all dimensions of health.

HE.912.C.2.8[□] Analyze how the perceptions of norms influence healthy and unhealthy behaviors.

HE.912.P.7.2[□] Evaluate healthy practices and behaviors that will maintain or improve health and reduce health risks.

Teacher Instructions

Student Instructions: For this activity, you will be introduced to questions relating to the 2017 Florida Youth Risk Behavior Survey data. The YRBS is given to approximately 6,000 high school students from all over Florida.

Launch: “The Florida Youth Risk Behavior survey (or YRBS) is given every two years to high school students across Florida in order to understand the health choices, risks, and considerations of Florida’s teens today. The information gathered from this survey helps Florida agencies make decisions about what programs and policies might be most helpful in keeping Florida’s youth safe and healthy.”

Explanation of Task: “We are going to explore a few of the survey questions and statistics that deal with the substance abuse including alcohol, tobacco and other illegal/illicit drugs.

As you read through each question, your task is come up with an estimation of the percentage of Florida teens that answered positively or “yes” to the statement in 2017. Write down your best estimation for each statement. After you have thought of your own best answers, compare your answers with a peer.”

After students have written down their best estimations and have discussed their responses with a peer, ask them to consider the following: “Many times people will overestimate the frequency of risky behaviors and underestimate positive or healthy choices. As I tell you the true statistics from the 2017 YRBS data for each question, place a star by the ones that you overestimated or underestimated by 10% or greater.”

Read aloud the 2017 percentages for each question:

Behavioral Health Module – (rounded to nearest whole number)

Note: All statistics are related to Florida High School students.

Alcohol, Tobacco, & Substance Use

1. Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)___%
2. Percentage of students who drove a car or other vehicle when they had been drinking alcohol (one or more times during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)_____%
3. Percentage of students who drank alcohol at least once during the 30 days before the survey _____%
4. Percentage of students who currently were binge drinking (had four or more drinks of alcohol in a row for female students or five or more drinks of alcohol in a row for male students, within a couple of hours, on at least 1 day during the 30 days before the survey) _____%
5. Percentage of students who currently smoke cigarettes at least once during the 30 days before the survey _____%
6. Percentage of students who ever tried cigarette smoking (even one or two puffs)_____%
7. Percentage of students who currently used marijuana at least once during the 30 days before the survey _____%
8. Percentage of students who ever took steroids without a doctor's prescription (pills or shots, one or more times during their life) _____%
9. Percentage of students who were offered, sold, or given an illegal drug on school property during the last 12 months _____%
10. Percentage of students who ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it (counting drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet, one or more times during their life)_____%

2017 stats:

1. 17% 2. 6% 3. 27% 4. 14% 5. 6% 6. 19% 7. 20% 8. 4% 9. 17% 10.

Whole Group Discussion: After reading the 2017 YRBS statistics, give students time to answer the short answer questions on the handout and then conduct a whole group discussion addressing the following questions:

1. Which risk behavior statements did you most overestimate (biggest difference between your estimation and the actual 2017 percentage) regarding Florida's teens?
2. Why do you think it is typical for people to overestimate risky behaviors and/or consequences in teen health? (Think about factors such as peer pressure, media portrayal, societal acceptance, etc.)
3. What do you believe has the greatest impact or influence on behavioral health behaviors on your age group (teens) and why do you think that?
4. How might these statistics relate to the idea of identifying healthy versus unhealthy habits and decisions in Florida's teen population?

* *"Choosing My Own Well-Being" Statistics Check – Module Launch Activity*

What is your 2017 YRBS knowledge?

Student Instructions: For this activity, you will be introduced to questions relating to the 2017 Florida Youth Risk Behavior Survey data. The YRBS is given to approximately 6,000 high school students from all over Florida.

Your task will be to give your best guess for each question and then compare and discuss your answers with a peer. As you talk with your partner, be sure to discuss the following:

- Do you think your percentage guesses are accurate? Why or why not?
- How different are your answers from those of your peers? If you have different guesses, why might this be?
- What additional information might you need to have in order to feel confident in your guesses?

After your teacher has given you the actual percentage answers for each question, circle the questions that you overestimated or underestimated by 10% or more. Then complete the reflection questions.

Reflection

Which percentages were you most surprised by and why do you think this is so?

How might these issues influence the health and well-being of Florida teens in the short-term? Long-term?

Activity 1 (of 3): Your Developing Brain

Activity Description: This activity focuses on the development of the brain during the teenage and young adult years of life. The activity emphasizes the critical functions of the brain and how substance use and abuse can have lasting detrimental effects on cognitive functioning in teens. It is the first of a three-part unit on understanding the risks of substance abuse for Florida teens. This unit has been developed using recent data (2015 & 2017) from the Florida Youth Risk Behavior Survey.

Estimated Time: 25-40 minutes

Special Materials:

- Projection/Computer with internet access for video viewing
- Student Handout (for each student)
- Sticky notes (at least two for each student)
- Screen projection of brain or poster reproduction – (students will place sticky notes on brain projection)

Florida Standards:

HE.912.P.7.1

Analyze the role of individual responsibility in enhancing health.

HE.912.C.1.8

Assess the degree of susceptibility to injury, illness, or death if engaging in unhealthy/risky behaviors.

LAFS.910.SL.1.1

Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

- a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

Student Learning Objectives:

Students will be able to:

- Identify general parts and functions of the brain
- Describe the ways in which substance use and abuse could damage or interfere with normal brain development in teens and young adults

Guiding Questions:

What happens to the brain during the teen and young adult years of life?

Why is it critical to protect your brain from substance use and abuse during your teen and adult years of life?

“Your Developing Brain” Activity:

Launch: The teacher will ask students to reflect on what they know about the brain by saying, “Your brain is essentially the command center of your whole body. Without it, it would be impossible for your body to do anything that it does. Take a moment and think about what you know about the brain. What does it do? Why is it such an important part of the body? Write down some ideas that you have about the brain and then turn to a partner and share your ideas.”

Think-Pair-Share: Students will turn to a seat neighbor after thinking for a minute and will briefly discuss their ideas about what they know about the brain. As the students are discussing in pairs, the teacher should walk around the room and listen to the ideas students are sharing with their partner. After a few minutes of sharing, the teacher will then lead a brief whole-class share-out: “What are some of the things that you know or have heard about the brain that you shared with your neighbor?” (Give students an opportunity to share out to the whole group).

Building on student ideas: Say, “The brain is one of the most necessary and critical organs in the body. It is responsible for allowing us to think, breathe, move, feel, and speak. The brain acts as a control center for every other aspect of our body. Information from both inside-like heart rate and body temperature- and outside of the body-like what our eyes see and our sense of touch feels- makes its way to the brain. The brain receives this information, then processes it and integrates it so that the body can survive and function under all kinds of changing circumstances and learn from experience. The brain is always working, even when you’re sleeping!”

There are different parts of the brain that work together as a team, and each part has a specific and important job to do. But did you know that these parts of the brain are still developing even through your 20s? Much like when you were a little kid, your brain is still learning new things and developing strong neural pathways that will help you now and as you get older. But when drugs enter the brain, they interfere with its normal processing and can lead to changes that can harm the way your brain functions overtime. In many cases, drug use can lead to addiction, which is a devastating brain disease that keeps people taking drugs even when they really want to stop and even after it causes terrible consequences to their health and other parts of their lives.”

Video & Discussion: To introduce the video say, “Because the teenage brain is still under construction, it is essential that young people should know the facts about what drugs can do to their brain. Let’s watch this short video about the developing brain. While you are

watching, think about how the information might be connected to the potential risks of substance use and abuse for teenagers.”

Discovery News – The Teenage Brain: Under Construction

<https://www.youtube.com/watch?v=f9Ya0mHslqM>

Discussion Questions after the Video:

- What were some of the things that stood out to you as important or surprising?
- How are teenage and young adult brains different than adult or “grown up” brains?
- Why is it important as a teenager to protect your brain currently?
- How might the information in the video connect with the potential risks of substance use and abuse for teens?

Explanation of Task: After the video discussion, say, “For the next part of this activity, we will explore the different parts of the brain that are “under construction” and what happens to these parts when drugs and/or alcohol enter the brain. Read over the information on your handout about each of the parts of the brain and what they do. Then on the brain diagram, give a brief description in your own words of the function of each part of the brain. Once you have completed the diagram, choose at least two different areas of the brain to focus on – give an example of what might happen if that part of the brain were to be impaired and write those examples on the sticky notes provided. You may discuss your ideas with a classmate.”

Give each student a handout with the Parts of the Brain information, blank Brain Diagram to complete, and two or more sticky notes. Consider projecting the brain or drawing a simple brain on poster paper as a whole-class reference and for whole-class discussion during the closure portion of this activity.

Independent Practice: Students will work individually to read the handout and develop descriptions of the functions of each part of the brain on their handout. The teacher should circulate the room and check in with students throughout this activity. After students have completed their brain diagrams, remind students to consider what would happen if each part of the brain were to be impaired or damaged. Have them write their examples on the sticky notes (at least two for two different parts of the brain, but feel free to hand out more sticky notes for additional examples if time permits).

Whole Class Discussion & Closure: Once students have completed their activity handouts and have come up with at least two examples of consequences of damage or impairment to various parts of the brain on their sticky notes, give students an opportunity to share their causes in each domain by making a whole-class diagram of consequences. Using large poster paper or a screen projected brain diagram, allow students to come up one at a time to share their consequence examples and place them in the appropriate part of the brain. (For example, a student might place a sticky note that reads ‘having feelings of depression’ under limbic system, as this is where emotions are regulated.)

After an opportunity for students to share their work and ideas with the larger group, say, “As we’ve discussed today, our brains are extremely important and keeping them healthy now will help us stay healthy in the future. While we haven’t discussed specific substances yet, we know that drugs and alcohol can have serious negative effects and consequences on the brain and brain development. We have thought about what could happen if the different parts of the brain were to be damaged or changed while they are still under

construction. In a future activity, we will explore the ways that specific drugs can affect the brain.”

Formative Assessment:

In addition to the contributions of the students in whole-group closure, the teacher can assign an exit slip with the following questions:

1. What happens to the brain during the teen and young adult years of life?
2. Why is it critical to protect your brain from substance use and abuse during your teen and adult years of life?

Feedback to Students:

The teacher may want to highlight particular ideas or contributions that students have made on their handout, in class discussions, or on their exit slips for feedback based on the learning objectives.

Accommodations:

Instead of writing, students may use dictation or assistive technology in order to complete the handout activity. Additionally, students may be paired with others for reading support and may have the handout read aloud to them.

Extensions:

Students can conduct an exploratory research project on a specific area of the brain or on a specific substance that can cause damage to the brain. Their research should highlight the ways in which daily function, and short- and long-term health is affected by the specific region and/or substance on which their project is focused.

** Student Activity Handout **

Your Developing Brain: Under Construction!

While you are a teenager and even a young adult, your brain is under construction. Scientists have discovered that the human brain is not fully developed until a person is between the ages of 25 and 27! While the brain is still developing, there are critical changes happening that can affect the way the brain processes information in the future and the way the body and brain interact. That is why it is so important to protect your brain while you are still a teen.

You may have heard people telling you to “Just Say No” when offered or when thinking about using drugs, but staying away from substance use is more critical than just avoiding peer pressure or doing what adults tell you to do. **Using drugs *changes the way the brain works by causing damage to specific parts of the brain*** – this is especially true when you are young since the brain is not yet fully developed. In fact, it is possible for the brain to be *more damaged* by substances like marijuana and alcohol when someone uses these as a teenager than if they were to use them as an adult.

To understand the importance of taking care of your brain, read through the descriptions of each part of the brain below and what they are responsible for when it comes to how your body functions! While there are many more parts of the brain, you will explore five main areas and their functions.

Cerebral Cortex

The cerebral cortex is the largest part of your brain – the mushroom-shaped outer part of the brain. In humans, it is so big that the cerebral cortex makes up about three-fourths of the entire brain. The cerebral cortex is made up of four separate parts called lobes. Each of these lobes is responsible for a different part of high functioning and decision-making in humans and all are still developing during one's teenage years.

- Frontal Lobe – The function of this lobe involves problem solving, planning, and decision-making. It also helps to regulate movement, judgment, impulse control, memory, and other higher order functions. Some scientists believe that this area of the brain may be one of the last to fully develop in a person's mid-twenties.
- Parietal Lobe – The function of this lobe includes receiving sensory information from the body (like touch, vision, or hearing) and processing this information to carry out the appropriate action. For instance, if you touch a hot stove, the burning sensation from your hand is received by the parietal lobe and is then processed by the brain to tell your hand to pull away from the hot surface. To us, this back-and-forth messaging happens in an instant, thanks to our parietal lobe! This part of the brain also controls spatial orientation, speech, and thinking.
- Occipital Lobe – The function of this lobe includes helping one to see and make sense of the information we receive from our eyes. It helps us see colors and process the many different things happening around us all the time. The occipital lobe also helps the brain decide what visual information is important at the moment and what we can ignore.
- Temporal Lobe - The function of this lobe includes helping one to hear, understand, and express emotions. It also aids in memory and language processing. Without our temporal lobe, we would have difficulty communicating with and understanding others.

Limbic System

The limbic system is responsible for producing emotions (such as anger, happiness, and fear) as well as memories and learning. This part of the brain houses many different structures that control the way we feel, think, and interact with others, and how we make sense of things we are trying to learn. The limbic system also helps to control hormones produced by the body. This is a part of the brain that is still under development during puberty and young adulthood.

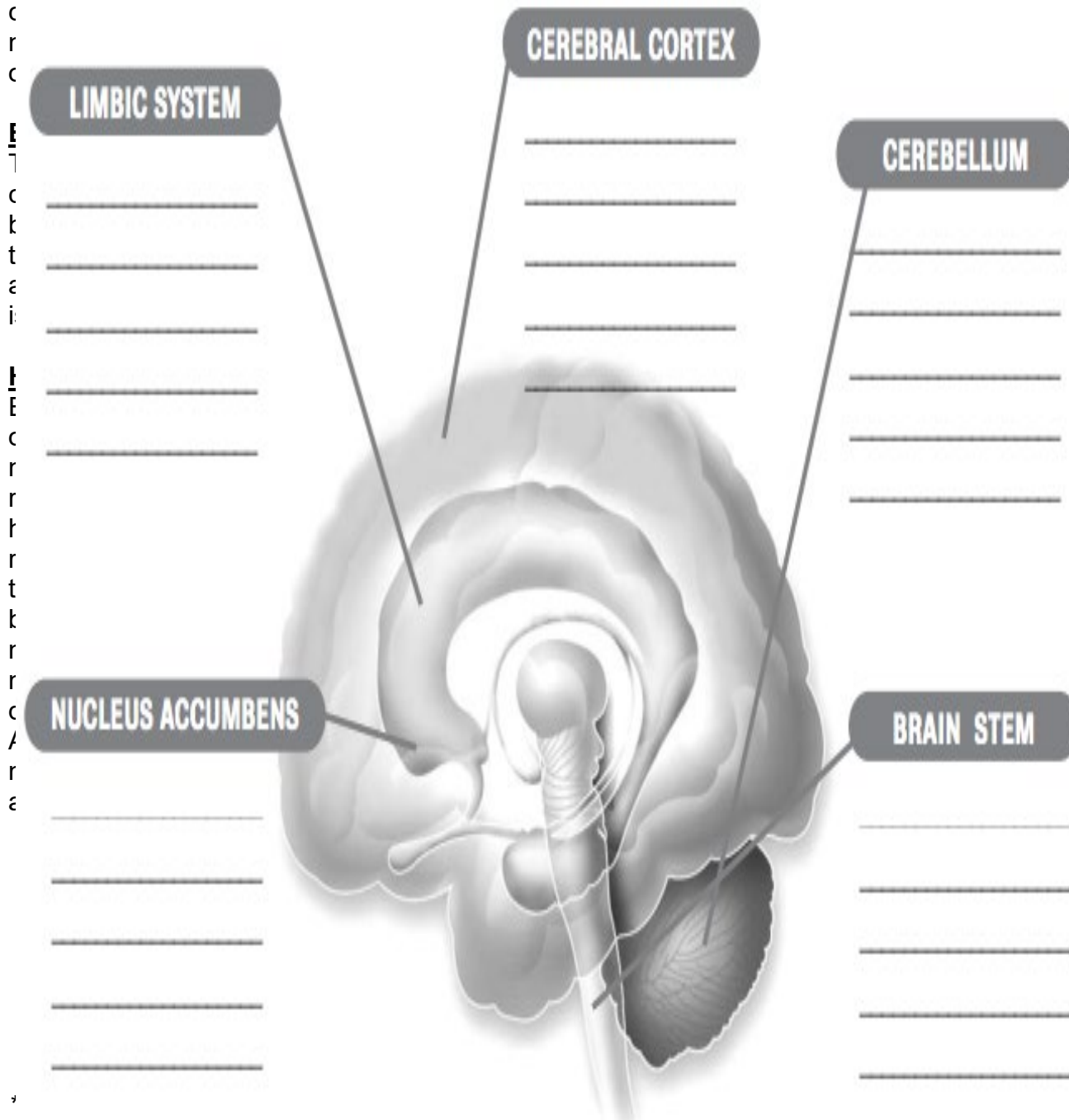
Nucleus Accumbens

This is a critical part of the brain that controls emotional responses, such as the feeling of pleasure when we eat chocolate or something sweet. The good feelings motivate us to repeat the behavior. Scientists have identified the nucleus accumbens as the part of the brain that is responsible for triggering this "reward pathway" – what happens when we want to keep doing something that we like or enjoy. When we do something that is key to survival, such as eating when we are hungry, the reward path is stimulated. Most addictive

drugs also stimulate this reward pathway, which can be dangerous. This is a part of the brain that is still under development during puberty and young adulthood.

Cerebellum

Another major part of the brain is the cerebellum. This part coordinates movements you do everyday. It receives information frm our sensory systems, the spinal cord, and other parts of our brain and then regulates our motor movements. The cerebellum helps us stay



In Your Own Words

Consider the parts of the brain that you've read about and think about the functions it performs. Write down your own definition of that part of the brain in your own words, and then include at least one way you've used this part of your brain recently!

UNDERSTANDING THE RISKS OF SUBSTANCE ABUSE
Activity 2: Examining Effects of Specific Substances

Activity 2 (of 3): “What Happens When...” Jigsaw Activity: Examining Effects of Specific Substances

Activity Description: This activity focuses on the ways in which alcohol, tobacco, marijuana, and other substance use can negatively influence behaviors, and brain and body functions. The activity emphasizes the short and potential long-term health risks

associated with the use of various substances. It is the second of a three-part unit on understanding the risks of substance abuse for Florida teens. This unit has been developed using recent data (2015 & 2017) from the Florida Youth Risk Behavior Survey.

Estimated Time: 30-45 minutes

Special Materials:

- Student Handout (guided research questions – one for each small group of 3-4 students)
- Laptop, tablet, or internet-capable device for video access and additional research (one for each group of 3-4 students)
- Large poster paper
- Markers

For ease of organization and transition, have the learning environment pre-arranged so that tables/desks are grouped for 4-6 students with 1 computer/tablet. When students enter the class, they place themselves into 1 of 6 groups based on room set up.

Florida Standards:

HE.912.C.1.1

Predict how healthy behaviors can affect health status.

HE.912.C.1.8

Assess the degree of susceptibility to injury, illness, or death if engaging in unhealthy/risky behaviors.

LAFS.910.SL.1.1

Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

- a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

MAFS.912.S-ID.1.2

Use statistics appropriate to the shape of the data distribution to compare center (median,

mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Student Learning Objectives:

Students will be able to:

- Examine specific types of substances– including alcohol, tobacco, marijuana, and opioids –and the ways in which each can adversely affect overall health status
- Communicate the short and long-term effects of specific substance use and abuse on behavior, brain, and body functions

Guiding Questions:

What happens when someone uses alcohol, tobacco, marijuana, and other drugs - what kind of harm is done to the brain and body in the short and long term?

What happens when specific substances enter the brain? How might a person’s behavior, personality, or body change?

Part 1: Intro Data Discussion

Introduction (if not discussed in prior lessons): Before moving into the next activity, it is important to introduce students explicitly to the Florida YRBS and aspects of the data used to inform the ‘Understanding the Dangers of Substance Use’ unit.

Say, “The Florida Youth Risk Behavior survey (YRBS) is given every two years to high school students across Florida in order to understand the health choices, risks, and considerations of Florida’s teens today. The information gathered from this survey helps Florida agencies make decisions about what programs and policies might be most helpful in keeping Florida’s youth safe and healthy.”

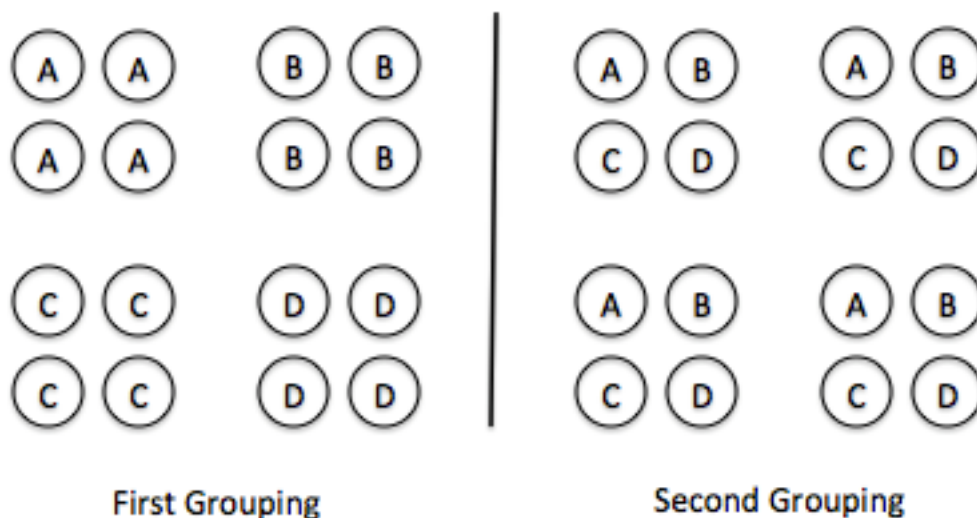
Launch: What is the legal age for someone to purchase and/or consume alcohol? What is the legal age to purchase tobacco products? Why do you think the government puts age restrictions on those substances?

Part 2: “What Happens When...” Jigsaw Activity

Jigsaw Activity Note: A jigsaw activity is a cooperative learning classroom strategy wherein students are divided into small groups to become “experts” or to share in a task, and then re-divide into a *second* small group in which each original group is represented to share out information or results. In other words, one person from each of the original groups comes together to create the second group. In the visual example below, each circle represents one student. Keep in mind, the number of students AND the number of articles and/or tasks should guide the groupings for a particular activity or lesson. More information about the jigsaw cooperative learning strategy can be found here:

<https://www.jigsaw.org/>.

Jigsaw Grouping Example:



Launch: The teacher will say: “Understanding the risks of substance use is about more than “Just Saying No” to drugs, alcohol, and tobacco. Substance use and abuse in adulthood is dangerous for your health, but the dangers are even more extreme during the teen years. For this activity, you and others in your group will learn about the effects of specific drugs on the behavior, brain, and body, and you will share what you learn with others in class.”

Explanation of Task – Jigsaw Part 1: Have students count off in their tables groups 1 through six, as there are six short videos (approximately 4 minutes) that they will be exploring. After they have counted off, have each group meet by number (all 1s together, all 2s together, etc.) Each group will be responsible for watching and discussing the short video. Be sure to give each group a tablet or internet-accessible device from which to watch the video.

The teacher should say, “After you have spent time watching and discussing your video with your group, complete the handout. Ensure you have good information to bring back to your original group. You will all be responsible for sharing the information about what you learned, so it is important to make sure you are knowledgeable about your substance and its effects on behavior, the brain, and the body.”

Group 1: Alcohol & the Teenage Brain - Turning Point

https://www.youtube.com/watch?v=g2gVzVIBc_g

Group 2: Effects of Cannabis & the Teenage Brain – Turning Point

<https://www.youtube.com/watch?v=FvszaF4vcNY>

Group 3: What Happens When You Stop Smoking – AsapSCIENCE

<https://www.youtube.com/watch?v=o3l0mJ2RfU0>

Group 4: The Brain on Opioids – National Geographic

https://www.youtube.com/watch?v=NDVV_M_CSI

Group 5: Why Students Should Think Twice Before Taking Amphetamines – Discovery News

<https://www.youtube.com/watch?v=hKK1OFYR7eg>

Group 6: Is LSD Really Dangerous? – Discovery News

<https://www.youtube.com/watch?v=Olfk6M7k77U>

Jigsaw Video WATCHING & DISCUSSING: Each group should be assigned one of the six videos to watch and then answer the guided discussion questions in their small group. If possible, videos should be cued up on each device.

The teacher should circulate around the room during this part of the activity to support students in their discussion and to assess students' progress. The teacher should note any discussion points that seem to be ambiguous to students, as well as any that spark interesting discussion or debate between students. The teacher may use these observations to highlight certain ideas or questions during the whole group closure phase of this lesson.

Once the small groups have answered all discussion questions, they should collaboratively create a poster that will describe the negative short and long-term effects of the substance on behavior, the brain, and body functions. Students may make reference to these posters when they share out in the next part of this activity.

Jigsaw Video SHARING: After the groups have watched and discussed their video and they have created their group poster, the teacher should rearrange the small groupings to new groups of six, ensuring as much as possible that each group has one "representative" from each of the six sections. Students will take turns sharing out to the new small group about their videos, based on their discussions, poster creations, and research. The posters should be hung up around the room for easy reference for the sharing out. The teacher should explain this and circulate around the classroom as students share out, using the guided video questions as support for their sharing.

Whole Group Discussion and Closure: After each student in each group member has shared their video reflections in the new small groups, the teacher should facilitate a whole group discussion about the ideas presented in each assigned video and the questions/ideas that arose from the second small group discussions. Possible discussion questions include:

- What were some of the main ideas or most important takeaways from each of the videos?
- What information seemed to "cross over" and be emphasized across different videos about the ways these substances influence behavior, or body- and brain-functions?
- Why is it important for teenagers to think about the potential dangers of substance use and abuse?
- What information did you learn today that you can share with others about substance use and abuse?

The teacher should summarize the ideas that students brought up in their discussions to the whole group and reemphasize the importance of abstaining from substance use in all forms due to the negative health effects on teen body and brain development.

Formative Assessment:

The teacher should collect students' write-and-reflect responses from the independent practice phase of the lesson. Additionally, the teacher should implement an exit slip for students, asking the following question(s):

- What happens when someone uses alcohol, tobacco, marijuana, and other drugs - what kind of harm is done to the brain and body in the short and long term?
- What happens when specific substances enter the brain? How might a person's behavior, personality, or body change?
- What questions or concerns did today's lesson bring up for me today?

Feedback to Students:

The teacher should carefully read through students' exit slip responses and follow-up with any students that may have pressing questions or concerns. Additionally, if teachers continue on with Part 3 of the "Understanding the Risks of Substance Abuse" unit, themes from this activity may be useful in helping students with identifying why people may choose to use drugs or other substances and to consider healthy alternatives to substance use.

Accommodations:

Each of the videos are equipped with closed captioning. Additionally, students may choose to watch the videos in full or pause at certain points to discuss particular aspects. In this way, students who may benefit from processing support can be accommodated.

Extensions:

Students can use their posters as an outreach tool for substance use and abuse awareness around the school. If possible, the teacher might consider scheduling small group visits to other classrooms to share information about the dangers of substance use and abuse.

**Student Activity Handout – Jigsaw Video Questions **

What Happens When... – Guided Research Questions:

- What is the main idea of the video?
- What do you find most interesting or most surprising about the information in the video?

- What happens when someone uses alcohol, tobacco, marijuana, and other drugs - what kind of harm is done to the brain and body in the short and long term?

- What happens when specific substances enter the brain? How might a person's behavior, personality, or body change?

- What information is important from the section that will help you share the "take away" with others who have not read it?

UNDERSTANDING THE RISKS OF SUBSTANCE ABUSE

Activity 3: Influences and Reasons for Substance Use

Activity 3 (of 3): Influences and Reasons for Substance Use

Activity Description: This activity supports students in considering some of the reasons why young people use alcohol, tobacco, marijuana, and other substances and to consider some of the healthy alternative activities to substance use. It is the third of a three-part unit on understanding the risks of substance abuse for Florida teens. This unit has been developed using recent data (2015 & 2017) from the Florida Youth Risk Behavior Survey.

Estimated Time: 40-80 minutes

Special Materials:

- Student Brainstorming Handout (one for each student)
- Large poster paper (one for each group of 3-4 students)
- Plan your PSA worksheet

- Markers

Florida Standards:

HE.912.C.1.1

Predict how healthy behaviors can affect health status.

HE.912.C.1.4

Propose strategies to reduce or prevent injuries and health problems.

LAFS.910.SL.1.1

Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

- Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

MAFS.912.S-ID.1.2

Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Student Learning Objectives:

Students will be able to –

- Discuss influences and reasons why young people might use substances
- Describe alternative activities and options to promote health and wellness
- Discuss current 2017 YRBS data around Florida teen substance use to dispel the myth that substance use is widespread across teenagers

Guiding Questions:

- Why do some young people choose to use substances such as alcohol, marijuana, tobacco, or other drugs? Why would someone choose NOT to use these substances?
- Why is it important to consider healthy alternative activities that can fulfill some of these reasons?
- When it comes to teen substance use, why might it seem like “everybody is doing it” when this is not true?

“Influences and Reasons for Substance Use”

Launch: The teacher will say: “As we’ve discussed, alcohol, tobacco, marijuana, and other drugs are substances that can seriously damage the brain and body, particularly during teenage years when the brain is still developing. Yet, some teens and young people still make the decision to use dangerous substances, which can lead to short- and long-term health problems, addiction, and even death in some cases. Today, we are going to think about the reasons why some teens choose to use substances and the reasons some do not, as well as consider some alternative healthy choices that one could make instead of substance use.”

Explanation of Task: The teacher should say: “For this activity, you will work with a small group of classmates to brainstorm reasons why some teenagers choose to use drugs and reasons why some choose not to use drugs. Then, with your group members, develop a list of substance-free activities that could be alternatives to drug use that would help to satisfy some of the reasons young people choose to use substances. For example, if you have listed ‘thrill seeking’, then an alternative activity might be riding a roller coaster at a theme park. Once you have finished brainstorming alternative activities with your group members, your group will create a PSA that will share the message of the importance of alternative options and substance-use avoidance. You will need to complete the planning worksheet. Be ready to share your PSA at the end of the activity.”

Small Group Independent Practice: Students will work in groups of 3 or 4 to brainstorm reasons why teenagers may or may not choose to use substances. (Some of the reasons why might include, but are not limited to:

- to try something new
- to experiment
- to escape from bad feelings
- to fit in with friends or peers
- to relax
- to experience a high or to thrill-seek
- because they see it as ‘cool’ from media portrayal

Some of the reasons teens may choose not to use substances could include:

- it is illegal
- concerns about negative effects of drugs on behavior, feelings, development, etc.
- avoid potential for addiction
- financial, health, or religious reasons

Students should then focus on the list of reasons why and generate alternative activities for each reason they’ve listed. These will be the primary focus for their poster.

The teacher should circulate around the room during independent/group practice to support students in their group discussion and to assess students’ progress and decision-making regarding the student generated ideas. The teacher should note any ideas that seem to be ambiguous or that spark disagreement between group members, as well as those that are ‘cut-and-dry’ alternative activities and are seen across groups. The teacher may use these observations to highlight certain healthy alternative activities during the whole group closure phase of this activity.

Closure: The teacher will facilitate a sharing out of students' group PSA's by having each group present their PSA to the whole group. The teacher may want to ask the following questions to each group:

Discussion Questions:

- What were some of the reasons for substance use that your group came up with?
- What were some of the reasons that teens would choose not to use substances?
- What kinds of alternative activities did you think about for each substance use reason?
- Tell us about your PSA – what message are you sending?

After sharing out, the teacher should explicitly ask the guiding questions for student discussion: Why is it important to consider healthy alternative activities that can fulfill some of these reasons? When it comes to teen substance use, why might it seem like “everybody is doing it” when this is not true?

The teacher should summarize the ideas that students brought up in their poster presentations and small group discussions and reemphasize the notion that many alternatives to substance use exist and that substance use is NOT widespread in Florida teenagers. In fact, 80% of Florida teens do not use marijuana and 73% of Florida teens do not drink alcohol.

Formative Assessment:

The teacher should implement an exit slip for students, asking the following question(s):

- What is the most important “take-away” idea that I learned about in class today?
- What questions or concerns did today’s lesson bring up for me today?

Feedback to Students:

The teacher should carefully read through students' exit slip responses and follow-up with any students that may have pressing questions or concerns.

Extensions:

Students can develop an individual PSA video or print campaign to research and dispel myths around teenage substance use in Florida and the U.S. See the following for one example:

NIDA/NIH Video - Drugs: Shatter the Myths -

https://www.youtube.com/watch?time_continue=1&v=YIFDDB061i8

Unit Summative Assessment:

For the summative assessment of all five activities, students should answer the following prompts in a short answer response: “What are the risks of substance use and abuse for Florida teens in terms of brain development and other health-related issues? What are some ways that Florida teens can make healthy decisions or choose alternative options when it comes to substance use?”

Students should write a short (one to two page) essay response to this question demonstrating an understanding of the objectives of the activities within the Understanding the Risks of Substance Use and Abuse activity unit.

**YRBS Data* – Student Activity Handout (multiple pages)
Reasons for Substance Use in Teens

List some reasons why teenagers use substances...

List some reasons why some teenagers DO NOT use substances...

HEALTHY Alternatives to Substance Use

For each of the reasons you have listed for why some teens use substances, brainstorm some other ways that teenagers could fulfill those reasons in a substance-free way. Think about what substance-free activities are common among 15-20 year olds...

Plan Your PSA:

A Public Service Announcement (PSA) is a video created to raise awareness and hopefully change people's attitudes and behavior toward a particular social issue. PSAs deliver

specific messages that have a powerful influence because they leave lasting impressions on viewers.

DIRECTIONS: In the blank boxes below, plan out a powerful PSA that raises awareness among fellow teens about the dangers of drugs, alcohol or tobacco use AND healthy alternatives. Use the AUDIO lines to describe music or sound effects that will be included. Use the SCENE line to describe any pictures, video settings use for the scene. The LINE section should include all dialogue, The TEXT lines should contain any words, such as titles or credits, that will show on the screen.

1.

AUDIO

SCENE

LINE

TEXT

2.

AUDIO

SCENE

LINE

TEXT

3.

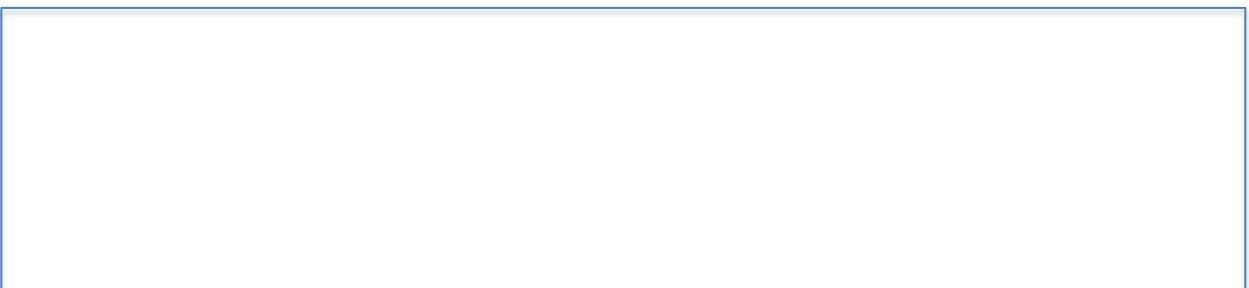
AUDIO

SCENE

LINE

TEXT

4.



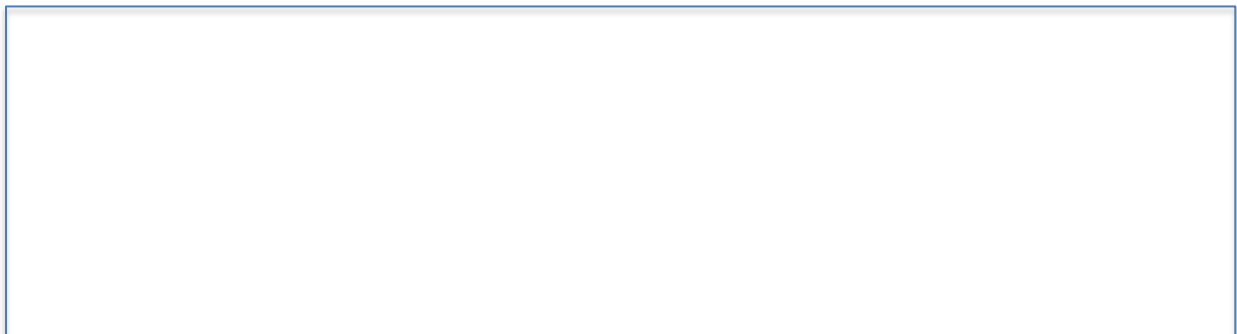
AUDIO

SCENE

LINE

TEXT

5.



AUDIO

SCENE

LINE

TEXT
