

Say “YES” to a Healthy Lifestyle



Discovery
EDUCATION



GRADE
RANGE
5–7

RISKY BEHAVIOR | DIGITAL EXPLORATION EDUCATOR GUIDE

ASK, LISTEN, LEARN

BREAKING DOWN THE MYTHS OF MARIJUANA

Learning Objectives

Students will:

- Learn what marijuana is and how it affects the developing brain and body.
- Separate fact from fiction regarding what they might hear about using marijuana.
- Learn refusal strategies they can use when pressured or invited to engage in risky behaviors.

Background

How an adolescent’s brain develops can be a key in understanding its susceptibility to substances like marijuana. While the parts of the brain responsible for gross motor movement and emotion are the first to develop, the prefrontal cortex, the part of the brain responsible for rational decision making and impulse control, might not finish developing until later! This not only makes the adolescent brain physically susceptible to long-term damage from substance use, but it also makes a decision-making teenager more likely to make risky and impulsive choices.

Using—or not using—marijuana is just one of many decisions a teenager may have to make as they mature. Understanding what marijuana is, and the effects it can have, are the first steps in helping adolescents make safe choices to avoid risky behaviors.

Marijuana is a plant that exudes many natural chemicals, including (Tetrahydrocannabinol) THC. The compound THC is psychoactive, meaning it has an effect on the brain. Marijuana used to be primarily smoked, but in recent years, it has become common to ingest it through food or drink or to vaporize it and use it as an inhalant (vaping).

The legality of marijuana is complicated and changing, but it is important for you and your students to know that recreational use of marijuana by people under the age of 21 is always illegal. Nationally, marijuana remains illegal, and distributing marijuana is a federal offense. Many states, however, are legalizing recreational use of marijuana when it is purchased through a licensed dispensary. Be sure to understand your state and local laws about marijuana use before starting the digital exploration.

Module Summary

No matter the legal status of marijuana in your state, there are important things kids need to know about the risks associated with underage marijuana use. This module will touch upon commonly held myths about marijuana to see how students react and what they think. Then, students will investigate why and how marijuana affects their developing brains and bodies to separate marijuana facts from fiction.

Using the Digital Exploration

This section provides strategies for incorporating the digital exploration into instruction and tips for facilitating discussion before, during, and after each module.

Breaking Down the Myths of Marijuana Overview

Can you get addicted to marijuana? Does using marijuana affect your brain? Students will have the opportunity to confront some of the myths surrounding marijuana use, and separate fact from fiction.

Placeholder

Setting the Stage

Engage students before the module with one or more of these questions:

- Do you think marijuana has a stronger and more harmful effect on young people than on adults?
- Can using marijuana affect your brain? Your body?
- Why is it legal to use some substances but illegal to use others?

Screen-by-Screen Educator Tips

- **Ex: Prepare**
 - **Marijuana 101:** The module begins by introducing students to what they will learn in the module in order to be able to separate fact from fiction regarding marijuana. Ask students if anything they read on the screen is surprising to them.
 - **Marijuana Myths:** Students are asked to predict whether each statement about marijuana is true or false. They will not receive specific feedback at this point, so consider having students raise their hands to represent their predictions.
 - **Show What You Know:** The pre-test consists of three questions. Students have one opportunity to answer each question correctly. Feedback is provided for both correct and incorrect answers. If using the module in a classroom setting, consider having students vote on answers or call on different students for each question. The correct answer is visible once an answer is submitted.

- **Confidence Ranking:** Students are asked to rank how strongly they agree or disagree with the following statement: “I know how marijuana affects the developing brain and body.” They will have the opportunity to revisit their feelings at the end of the module.
- **Learn**
 - **Lyndsey and Jack:** Students meet friends Lyndsey and Jack and learn about their dilemma regarding using marijuana. Invite students to reflect on a dilemma they have had and what strategies they used to help make their decision.
 - **Effects of Marijuana:** From this series of cards, students will learn short- and long- term effects of using marijuana as well as the correlation between using marijuana and psychiatric disorders. Create a T-chart on the board and ask students to provide the short- and long-term effects they remember from the slide to populate the chart.
 - **Marijuana and the Developing Brain:** Students will be able to click on three hotspots on an image of the human brain to learn about how using marijuana affects brain communication, mental health, cognitive function, and addiction. Ask students why they think that all of these effects are more pronounced in younger users. Reinforce that the adolescent brain is still developing and is more susceptible to substances.
 - **Legality of Marijuana:** These cards discuss both medical and recreational use of marijuana. Discuss whether recreational use is legal in your state. It is important that students understand that recreational use of marijuana is still a federal crime and is always illegal for anyone under the age of 21.
 - **Responding to Pressure:** Students learn four common ways to communicate their choice not to participate in risky behavior. Invite students to turn to a partner and share the strategy with which they would be most comfortable, or the one they feel would be most successful.
 - **Myths About Marijuana:** In this interactive, students will revisit the statements they encountered at the beginning of the module. They will decide whether each statement is the truth or a myth and receive immediate feedback. If using the module in a classroom setting, consider having students vote on answers or call on different students for each question. Immediate feedback is visible once an answer is submitted.
- **Wrap-Up**
 - **Let’s Review:** Students are given the opportunity to review what they have learned throughout the module by reading the truth associated with each myth. Key takeaways from the modules are presented. Give students an opportunity to ask questions about anything they still don’t understand, and to address any misconceptions that have arisen throughout the module.
 - **Confidence Ranking:** Students are asked to rank how strongly they agree or disagree with the following statement: “I know how marijuana affects the developing brain and body.” Did more



students agree with the statement after completing the module than before? If students still disagree at the end, ask them what they still need to know in order to agree with the statement.

- **Challenge**

- There are five post-test questions for this module. Students are encouraged to review the information in each section, if needed, before beginning the post-test.
- Students will encounter a variety of question types including multiple choice, classification, matching, and true/false.
- For each question, students have two opportunities to answer correctly. Full credit is given for correct answers on the first try. The total number of available points in this module's post-test is ___. If students answer incorrectly, they are given an opportunity to try again, or skip and continue to the next question. No additional points are given to students who either do not retry the question or retry the question and still answer incorrectly. Partial credit is given for students who correctly answer a portion of a multi-part question, or who give the correct answer on a second try.

Placeholder

Extending the Module

Once students complete the module, consider one or more of the following follow-up activities:

- Encourage students to use online tools or free programs such as [Canva](#) to create infographics informing their peers of what they have learned about marijuana facts vs. fiction.
- Consider supplementing use of this digital exploration with [Cannabis Lesson Plans](#) from *Ask, Listen, Learn*, which is website with materials and resources to keep kids substance free. The materials are free and meant for kids aged 9–13, their parents, and educators.
- Lead students through the [How Alcohol Affects the Brain](#) videos from *Ask, Listen, Learn*, and facilitate a discussion about ways to say NO to underage drinking and underage marijuana use.

Standards Correlation

The following standards from the **CDC National Health Education Standards** are addressed in this digital exploration:

- **7.8.3** Demonstrate behaviors to avoid or reduce health risks to self and others.
- **5.8.2** Determine when health-related situations require the application of a thoughtful decision-making process.
- **1.8.1** Analyze the relationship between healthy behaviors and personal health.

The following standards from the **Next Generation Science Standards** are addressed in this digital exploration:

- **LS1.A:** Structure and Function (circulatory, muscular, nervous): In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions.
- **LS1.D:** Information Processing: Each sense receptor responds to different inputs (electromagnetic, mechanical, chemical), transmitting them as signals that travel along nerve cells to the brain. The signals are then processed in the brain, resulting in immediate behaviors or memories.

Key Terms

Addiction

The condition of being physical or mentally dependent on a substance

Endocannabinoid System

A body system that contains chemical messengers that communicate with the body's other systems to help with memory; cope with stress, pain, and anxiety; and balance hunger, coordination, and body temperature

Marijuana

A plant that exudes many natural chemicals, including THC, which is psychoactive, meaning it has an effect on the brain

Tetrahydrocannabinol

Commonly referred to as, THC, it is the chemical that comes from marijuana; a psychoactive substance that produces intoxicating effects