

Grade 9 Drug Education

Lesson 1: Substance Use, Addiction, and the Role of Harm Reduction

This lesson, which is aligned with NL Health Indicators, contains necessary background information, substance snapshots, learning activities, scenarios, and discussion guides to support delivery of material.

Health Indicators

Emotions, Thoughts and Behaviours

1. Explain how different types of stress have diverse effects on the body.
2. Develop strategies for coping with stress and stressful situations.

Nurturing Growth and Development

1. Identify harm-reduction strategies, resources, and information for substance use.
2. Analyze the effects of substance use on health and well-being.
3. Reflective on preventative, promotive, and interventive practices to support brain health.

[Link](#) to Newfoundland and Labrador (NL) Curriculum Outcomes

Lesson 1: Substance Use, Addiction, and the Role of Harm Reduction

Lesson 2: Sexual Health and Substance Use



Lesson Snapshot:

Lesson 1: Brain Health and Substance Use

Norms & Expectations

- Learning Activity 1: Brain Health and Well-Being
- Learning Activity 2: Addiction and Harm Reduction
- Learning Activity 3: Substance Use Spectrum and Lowering Risk

Background Information

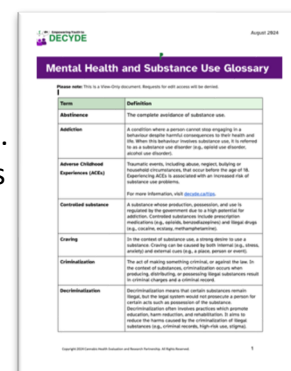
Definition of Drugs

Drugs are substances or chemicals that affect the way our bodies and minds work. Some drugs are medications that help people feel better. They can be used to prevent, cure or alleviate symptoms. Drugs can also be used in unsafe ways. They can affect how the brain works and can have negative effects on the way our body develops and functions. Drugs used unsafely can change the way people feel, think, or behave.

Examples of drugs include:

- Alcohol (e.g., beer, coolers, vodka, whisky, wine)
- Caffeine (e.g., energy drinks, coffee, tea, soft drinks)
- Cannabis or Marijuana
- Hallucinogens (e.g., LSD, Mushrooms)
- Medications (e.g., puffers, epi-pens, fever medications, anti-nausea medications, anti-anxiety medications)
- Nicotine (e.g., tobacco, cigarettes, nicotine vapes)
- Opioids (e.g., codeine, morphine, fentanyl, heroin)
- Over-the-counter medications (e.g., cough syrup, pain medications)
- Stimulants (e.g., nicotine, amphetamines [e.g., Adderall, crystal meth], methylphenidate [e.g., Ritalin], cocaine)
- Vaccinations (e.g., flu, COVID-19, tetanus)

The [DECYDE Mental Health and Substance Use Glossary](#) provides a comprehensive collection of key terms and concepts related to substance use. Designed to support educators and mentors, this glossary provides definitions to enhance understanding and communication around substance use topics that are relevant for DECYDE.



[Substance Snapshots](#) aim to provide educators with information about the various drugs that are incorporated throughout the learning activities. Each snapshot summarizes how the drug is used, its effects, when to seek emergency help, and how to stay safe. The Substance Snapshots are intended to support educators in the delivery of drug education and are not for direct student use unless deemed appropriate.

Key Considerations

An understanding of the following resources will assist educators as they implement the learning activities.



Use a Skills-Based Health Education (SBHE) Approach

SBHE is a learning approach that uses interactive learning methods. This approach is used throughout the learning activities so students can learn skills that will promote and protect their health and well-being. Refer to the [SBHE infographic](#) for more information on SBHE and examples of interactive teaching methods and evaluation.



Incorporate the FACE Decision-Making Model

Throughout all lessons the FACE decision-making model is used to guide discussions and activities. The questions associated with each step of the FACE decision-making model are intended for educator use to probe students during scenario-based learning activities. Refer to the [FACE infographics](#) for more information.



Consider Adverse Childhood Experiences (ACEs) and implement Trauma-Informed Practices (TIPs) that support harm reduction principles

ACEs are traumatic events that occur before the child reaches the age of 18. Students who experience ACEs have an increased susceptibility to try drugs. This may impact their ability to engage in learning about substances. The [ACEs infographic](#) highlights the types of ACEs that may impact youth and offers strategies for educators. Incorporating early drug education and [harm reduction](#) principles may encourage youth to make safe and informed choices and reduce potential negative consequences. Understanding the impact of trauma resulting from ACEs will better equip educators to support student learning. The [Trauma-Informed Practices \(TIPs\) infographic](#) provides information on this strengths-based approach for educators.



Support Students Emotional Wellbeing

Discussion about drug or substance use may provoke a range of feelings. Building a positive rapport is vital to effectively engage youth in learning conversations. Respect for students' comments, questions, and concerns surrounding drug use is important regardless of personal opinions. If needed, encourage students to speak with the school's guidance counsellor or another trusted adult. Additional supports are located on the [DECYDE website](#).



Use First-Person Language

Using first-person language that is non-stigmatizing can create an environment that encourages students to engage in conversations or seek help. For more information about stigma and tips for educators, refer to the [infographic on Stigma](#).

Lesson 1: Substance Use, Addiction, and the Role of Harm Reduction



Learning Activities and Teacher Background Resources

Learning Activity 1: Brain Health and Well-Being

Learning Activity 2: Addiction and Harm Reduction

Learning Activity 3: Substance Use Spectrum and Lowering Risk

Teacher Resources:

[Adverse Childhood Experiences \(ACEs\)](#)

[Trauma-Informed Practices \(TIPs\)](#)

[Self-Care](#)

[Health and Wellness](#)

[Stress](#)

[Self-Concept](#)

[Factors Influencing Decision-Making](#)

[Harm Reduction](#)

[Substance Use Disorder](#)

Substance Snapshots: [Alcohol](#), [Cocaine](#), [Cannabis](#), [Nicotine](#), [Methamphetamine](#), [Ecstasy \(MDMA\)](#)



Norms and Expectations

While abstinence from drugs is the safest choice for youth to make, discussions about harm reduction are also important. Engaging in educational discussions about substance use can be a protective factor and can positively impact the decisions made by youth. These conversations may touch on sensitive topics for some students. Educators should consider the following: reasons why youth use substances; the harms of substance use; the age and cognitive development of youth; and the context of the school, community, and/or family situations. The sensitive nature of these discussions means teachers should place utmost importance on establishing a safe, supportive, and judgment-free environment. The teacher must promote positive and effective exchanges with students by co-establishing classroom norms that are revisited often.

During these discussions, all participants agree:

- The opinions of everyone are listened to and respected.
- Discussions about the content are factual, open and honest but do not use the names of individuals' experiences. (e.g., refer to "someone I know" rather than using names)

- Boundaries of individuals are recognized and respected.
- Discussions are free of judgemental language and challenge ideas, not individuals.
- Words matter. Avoid stigmatizing language. There should be an established understanding of the term [stigma](#). Teach and model respectful language used during discussions.
 - Important examples include using person-first language. For example, “a person who uses drugs or substances”.

Learning Activity 1: Brain Health and Well-Being

Learning Activity Objectives:



- Discuss the importance of brain health
- Identify factors that can positively and negatively affect brain health
- Recognize the components of health and wellness that can promote brain health, including include mental, physical, emotional, spiritual, and social health
- Identify healthy habits that can promote brain health
- Collaborate respectfully with peers
- Demonstrate positive communication strategies

Materials:

- Introduction
 - Brain Teaser
 - [Connections](#)
 - [Wordle](#)
- Discussion Prompts
- [Brain Blast Booklet](#)
- Pre-Activity: Healthy Habits
 - Infographics: [Health and Wellness](#), [Self-Care](#), [Brain Development and Substance Use](#), [Brain Health](#)
 - [Teacher Discussion Guide](#)
- Exploration: Look and Listen: Why the Teenage Brain has Evolutionary Advantage
 - [Video: Why the Teenage Brain has an Evolutionary Advantage](#)
 - Sharing and Reflection

Introduction

During this learning activity, students will discuss the importance of **brain health**. They will explore things that may **positively** affect brain health and things that may **negatively** affect brain health. As an opening to the conversation on brain health, complete the following brain games with the class:

Brain Teaser

Work together to answer the following brain teaser. Read out to the students or display to the class:

Lili walks out on a wharf. They see a boat full of people, yet there isn't a single person on board. How is this possible?

Answer: They are all married.

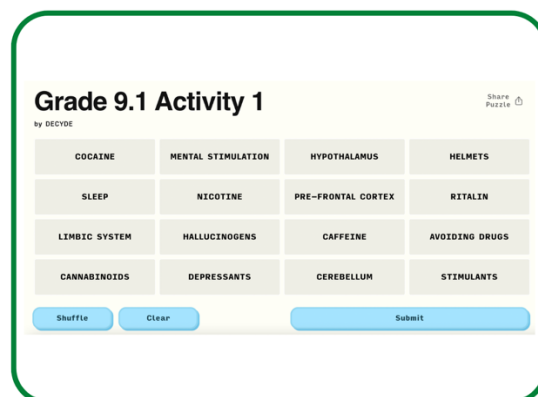
Connections

This game is designed to challenge students' word association skills and logical thinking, making it a fun and engaging puzzle game.

The Connections Game is available [here](#).

Instructions for students:

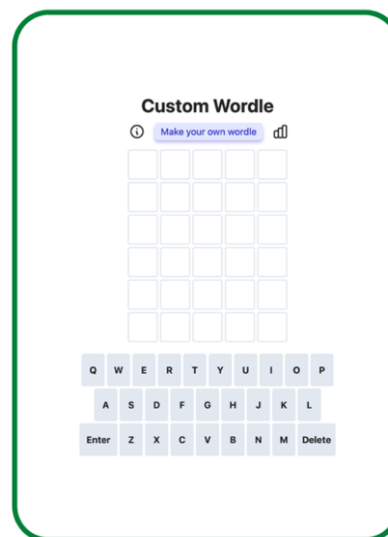
- Work together to identify a group of four words that share a common theme or category and submit.
- Repeat until four groups of words sharing a common theme are found.



Wordle

Instructions for students:

- Input Word: Enter a valid five-letter word into the game. Each guess must be a legitimate word found in the dictionary.
- Color Coding: After each guess, the game provides feedback using color-coded tiles:
 - Green: The letter is correct and in the correct position.
 - Yellow: The letter is correct but in the wrong position.
 - Gray: The letter is not in the word at all.
- The Wordle Game is available [here](#).



After the students finish the opening brain teaser activities, further **explore** brain health. Get them to consider things that may **positively** affect brain health as well as things that may have a **negative** effect.

The following discussion prompts may also help guide this learning conversation:

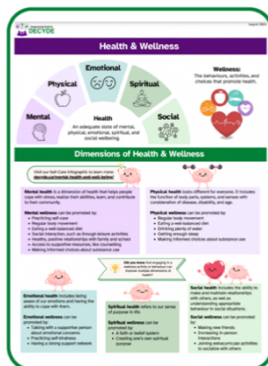


Discussion Prompts:

- Why did we do the above brainteasers and games? Why is mental stimulation important?
- Why is it important to keep the brain healthy?
- When do our brains stop developing?
- What are some daily habits that can positively impact your brain health?
- How can diet affect our brain health?
- How does excessive screen time affect your brain? What are some strategies to balance screen time with other activities?
- Why is sleep important for brain health?
- How do we protect our brains from injury?
- Why is managing stress important for brain health? What are some healthy ways that we can manage stress?
- How do substances affect our brain health?
- What role does physical activity play in brain health?
- What effects can drugs and alcohol have on the brain, especially during adolescence? Why is it important to avoid substances that can harm your brain?
- What are the differences between making decisions based on impulse (quickly) versus reasoning (thinking carefully)?
- How do emotions affect the decisions you make? Can you think of a time when your emotions influenced a decision?
- How do social connections influence our brain health?
- What does spiritual health mean to you? (Spiritual health refers to our sense of purpose in life).

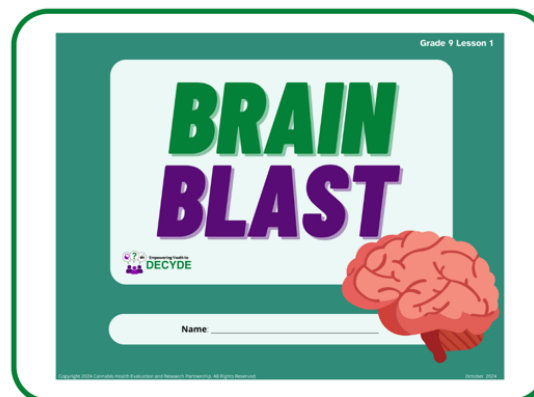
Pre-Activity: Healthy Habits

Engage students in a learning conversation about **healthy habits to promote brain health**. The teacher may provide examples of activities they engage in to promote their own brain health. Teachers may refer to the [Health and Wellness](#), [Self-Care](#), and [Brain Health](#) infographics to help guide the discussion, noting that brain health is important to a person's **overall health and wellness**.



Brain Blast Booklet

Introduce the [Brain Blast Booklet](#) to students. Walk through this booklet with the students, explaining that they will be **recording** their **learnings and reflections** here throughout the learning activities. The objective is that throughout this lesson, the students will explore information about brain health, the effect of substances on brain health, and harm reduction approaches.



The student version of the Brain Blast Booklet is available as a [PDF or Google Slides](#). This booklet is meant to be a resource for students and is not intended to be used as a presentation.

The first activity in this booklet is titled **Healthy Habits**. Students will **consider each component of wellness, identify a specific example** of a healthy habit that can protect brain health, and **explain how it relates to brain health**. Students can refer to the health and wellness components as outlined in the [Health and Wellness](#) and [Brain Health](#) infographics provided in the [Brain Blast Booklet](#). Students may work in small groups or individually for this activity.



HEALTHY HABITS

Consider each component of health and wellness- mental, physical, emotional, spiritual, and social.
For each, identify a specific example of a healthy habit that can protect brain health and explain why how it relates to brain health.

Mental Health and Wellness	
One healthy habit:	How this habit protects brain health:

Physical Health and Wellness	
One healthy habit:	How this habit protects brain health:

When the students have completed the worksheet, the teacher may use the **Healthy Habits Teacher Discussion Guide** to discuss the students' responses.

Exploration: Look and Listen: Why the Teenage Brain has an Evolutionary Advantage

This exploration activity can be used to expand on the discussion around brain health. As a class, watch the video "Why the Teenage Brain has an Evolutionary Advantage" and give time for students to respond to questions in small groups or individually.

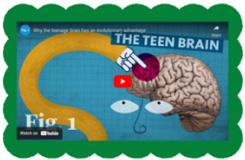
Video: [Why the Teenage Brain has an Evolutionary Advantage](#) (4:16)

Students will complete the activity in the [Brain Blast booklet](#) titled “**Look and Listen**”, which includes questions based on the video. For additional information on brain development to support students in answering the questions, consider sharing the [Brain Development and Substance Use](#) infographic with the class.

LOOK & LISTEN

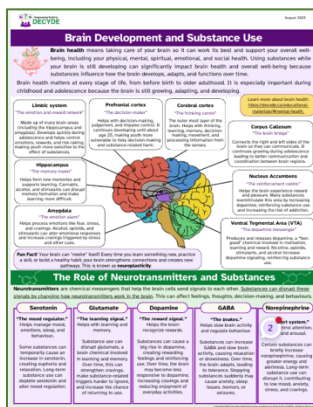
Grade 9 Lesson 1: Learning Activity 1

Watch the video “Why the Teenage Brain Has Evolutionary Advantage” and respond to the following questions.



1. At what age are you considered an adult? _____
2. When does the brain stop developing? _____
3. What is the role of the prefrontal cortex? _____
4. What is the limbic system responsible for? _____
5. Which develops more rapidly, the prefrontal cortex or the limbic system? _____
6. Give an example of how the teenage brain is more effective than the adult brain. _____
7. What is an example of a healthy risk? _____

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Divide students into small groups to answer the questions. Alternatively, students could complete the questions individually.

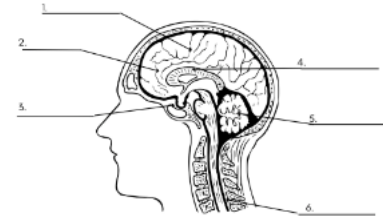
Afterwards, discuss the students' responses as a group using the **Teacher Discussion Guide** below:

Look and Listen

1. At what age are you considered an adult?
 - 18
2. When does the brain stop developing?
 - Mid-twenties, usually age 25
3. What is the role of the prefrontal cortex?
 - Decision-making, thinking logically, or thinking about consequences.
4. What is the limbic system responsible for?
 - Immediate gratification, emotions.
5. Which develops more rapidly, the prefrontal cortex or the limbic system?
 - Limbic system
6. Give an example of how the teenage brain is more effective than the adult brain.
 - Teenagers learn more quickly and accurately.
7. What is an example of a healthy risk?
 - Trying out for a school play, asking someone out on a date, trying out for a sports team. etc.

8. Using the [Brain Development and Substance Use](#) infographic, colour and label the other parts of the nervous system in the diagram.

1. Frontal lobe (f)
2. Prefrontal cortex (b)
3. Amygdala (e)
4. Corpus callosum (a)
5. Cerebellum (c)
6. Spinal cord (d)



Post-activity Discussion:

Invite students to share anything new they may have learned or that surprised them or any other information about the concepts discussed. Teachers may wish to share a personal experience about their life experience relating to the video, and invite students to do the same.

Sharing and Reflection

Students will reflect on their healthy habits related to their brain health. As outlined in the [Brain Blast Booklet](#), they will capture 3 ways that they are currently protecting and promoting their brain health and 3 ways that they can improve their brain health. Students may refer to the [Health and Wellness](#), [Self-Care](#), and [Brain Health](#) infographics to help guide their answers.

They will select one of the following ways to express their ideas:

- Create an infographic
- Create a presentation
- Write a short story or poem
- Pick a song and change the lyrics

Learning Activity 2: Addiction and Harm Reduction

Learning Activity Objectives:



- Describe the implications of substance use on brain development
- Define and distinguish between addiction, tolerance, and withdrawal
- Identify the signs of addiction, tolerance, and withdrawal of substances such as alcohol, nicotine, cannabis, cocaine, methamphetamine (crystal meth), and ecstasy (MDMA).
- Examine harm reduction strategies when using substances such as alcohol, nicotine, cannabis, cocaine, methamphetamine (crystal meth), and ecstasy (MDMA).
- Collaborate respectfully with peers
- Demonstrate positive communication strategies
- Use critical thinking skills to make decisions and problem-solve

Materials:

- Introduction
 - [Substance Use and Brain Health True/False Teacher Presentation](#)
 - [DECYDE Substance Use Health Glossary](#)
- [Brain Blast Booklet](#)
- Pre-Activity
 - Look and Listen: [Video: How Addiction Affects the Brain](#)
 - True/False Fix Presentation
- Exploration
 - Drug Database Carousel Activity
 - Quiz-Quiz-Trade: [Student Version](#), [Teacher Discussion Guide](#) [Note: this activity needs to be prepared in advance]
 - Infographics: [Harm Reduction](#), [Substance Use Disorder](#), [Brain Development and Substance Use](#), [Substance Use and the Brain](#)
- Sharing and Reflection
- Substance snapshots: [Alcohol](#), [Cocaine](#), [Cannabis](#), [Nicotine](#), [Methamphetamine \(Crystal Meth\)](#), [Ecstasy \(MDMA\)](#)

Introduction

In **Learning Activity 2**, students will focus on topics including **effect of substances on brain health, addiction, and harm reduction**. They will explore information about the effects, risks, and harms of substances such as **alcohol, nicotine, cannabis, cocaine, methamphetamine**

(crystal meth), and ecstasy (MDMA). Students will also reflect on “staying safer” and harm reduction strategies.

The teacher may wish to refer to the [DECYDE Substance Use Health Glossary](#), and the [Brain Development and Substance Use](#) and [Substance Use and the Brain](#) infographics to help inform class discussions.

As an opening to the conversation on **substance use and brain health**, use the [Substance Use and Brain Health True or False](#) presentation to gauge the student’s knowledge. Teachers will engage students in a learning conversation about the different substances to be explored throughout the lesson. They will also introduce the concepts of **addiction** and **tolerance**.



The teacher may display the presentation using the [Teacher Presentation](#).

Discuss each statement as they are presented.

- If they think the statement is true, they raise their both hands.
- If they think the statement is false, they raise their left hand.
- If they are not sure, they raise their right hand.

The answers are provided below in the **Teacher Discussion Guide**.

Substance Use and Brain Health True or False

1. Substance use can be thought of as a spectrum, ranging from non-use or beneficial use to higher-risk use or substance use disorder.
 - True.
2. Craving, loss of control, and compulsion to use despite negative consequences are symptoms of substance use disorder.
 - True.
3. Having a substance use disorder is a choice.
 - False. Explanation: Substance use disorder is a medical condition. It involves changes in brain and body that make it extremely difficult to stop using substances.
4. Over time, people with substance use disorder may need to use larger amounts of a substance to experience the desired effect. This is called tolerance.
 - True.
5. For people with a substance use disorder, stopping substance use suddenly can lead to unwanted side effects. This is known as withdrawal.
 - True.

6. Nicotine is not as addictive as many other substances.
 - False. Explanation: Nicotine is extremely addictive - studies have shown that nicotine can be just as addictive as substances like cocaine or heroin.
7. Young people are at a higher risk of developing substance use disorders because their brains are still developing.
 - True.
8. Anyone who uses substances for non-medical reasons has a substance use disorder.
 - False. Explanation: Many people use substances recreationally (for enjoyment or social purposes). Not everyone who uses substances recreationally goes on to develop a substance use disorder.
9. Substance use disorder is a medical condition that can be treated.
 - True.
10. Cannabis is not addictive.
 - False. Explanation: Cannabis can be addictive. The risk of developing cannabis use disorder is higher for people who use cannabis daily or who start using cannabis in their teens.
11. For people who experience nicotine addiction, certain places, activities or situations may trigger thoughts of nicotine, leading to intense cravings.
 - True.
12. Drinking alcohol is a good way to reduce stress and anxiety.
 - False. Explanation: While using alcohol may reduce stress and anxiety temporarily, alcohol use can worsen stress and anxiety long-term.
13. Drinking alcohol during your teenage years can interfere with healthy brain development.
 - True.
14. Withdrawal from substances only affects the body.
 - False. Explanation: The effects of withdrawal can be both physical (e.g., headaches, nausea, muscle aches) and mental (e.g., anxiety, depression, hallucinations).
15. Methamphetamine is a stimulant, meaning that it speeds up messages travelling between the brain and body.
 - True.
16. Our brains stop developing at age 20.
 - False. Explanation: Our brains do not finish developing until age 25.
17. Other names for MDMA are Molly and Ecstasy.
 - True.
18. Nicotine pouches are a safe alternative to smoking or vaping nicotine.
 - False. Explanation: Nicotine pouches can cause heart problems and gum irritation and can interfere with brain development in teens.
19. Cocaine is a depressant.
 - False. Explanation: Cocaine is a stimulant, meaning that it speeds up messages travelling between the brain and body.
20. Ecstasy use affects serotonin, a brain chemical responsible for feeling happiness and pleasure. Repeated ecstasy use can deplete serotonin in the brain and cause mood problems.

- True.
- 21. Anyone who uses substances daily has a substance use disorder.
 - False. Explanation: Many people are prescribed medications by their doctors and take these daily. Others use substances like caffeine or over-the-counter medicines daily. Not everyone who uses substances daily has a substance use disorder.
- 22. Cannabis use has no long-term effects on brain health.
 - False. Explanation: Cannabis use can cause cognitive and memory problems, and mood changes can worsen mental health concerns.
- 23. Cocaine use can cause unwanted mental effects such as hallucinations, paranoia and psychosis.
 - True.
- 24. During withdrawal from methamphetamine, people may experience intense depression, anxiety and irritability.
 - True.
- 25. People with a substance use disorder can usually recover on their own.
 - False. Explanation: Like many medical conditions, substance use disorder may require medical treatment.

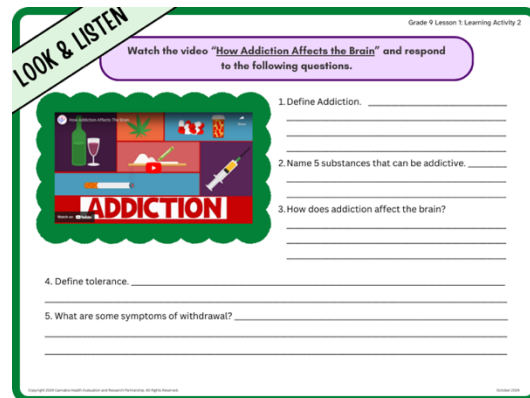
Pre-Activity: Look and Listen: How Addiction Affects the Brain

This pre-activity will expand on the discussion about **brain health and substance use**. Students will have the opportunity to consider the concepts of **addiction, dependence, tolerance, and withdrawal**. Consider the following definitions as you engage in a learning conversation with the students:

- **Addiction** is a condition where a person cannot stop engaging in a behaviour despite harmful consequences to their health and life. When this behaviour involves substance use, it is referred to as a substance use disorder (e.g., opioid use disorder, alcohol use disorder).
- **Dependence** is a condition where regular use of a substance leads to unpleasant effects when use is stopped. Physical dependence occurs when the body relies on the substance to function normally, while psychological dependence is characterized by an overwhelming desire to continue using the substance. Dependence can arise from any type of drug use (e.g., prescription, over-the-counter, legal, or illegal drugs).
- **Tolerance** is the need to take increasingly higher doses of a substance over time to obtain the same effect.

- **Withdrawal** are symptoms that occur when substance use is decreased or stopped once tolerance has developed. Withdrawal can include physical (e.g., headaches, nausea, muscle aches) or psychological (e.g., anxiety, depression, hallucinations) effects.

As a class, watch the video [“How Addiction Affects the Brain”](#) (2:28) and give time for students to respond to questions in their [Brain Blast Booklet](#), called **Look and Listen: How Addiction Affects the Brain**.



LOOK & LISTEN

Watch the video “How Addiction Affects the Brain” and respond to the following questions.

1. Define Addiction. _____

2. Name 5 substances that can be addictive. _____

3. How does addiction affect the brain? _____

4. Define tolerance. _____

5. What are some symptoms of withdrawal? _____

Refer to the [Brain Development and Substance Use](#) and [Substance Use and the Brain](#) infographics for more information.

When the students have completed the worksheet, discuss the students’ responses as a group using the **Teacher Discussion Guide** below:

- 1. Define Addiction.**
A condition where a person cannot stop engaging in a behaviour despite harmful consequences to their health and life. Addiction involves craving and a loss of control.
- 2. Name 5 Substances that can be addictive.**
Alcohol, cannabis, nicotine, cocaine, heroin, prescription medications
- 3. How does addiction affect the brain?**
Addiction alters communication between neurons in the brain. When using substances, large amounts of the neurotransmitter dopamine are released, which is what causes the “high” people experience.
- 4. Define tolerance.**
The need to take increasingly higher doses of a substance over time to obtain the same effect.
- 5. What are some symptoms of withdrawal?**
Nausea, tremors, depression, anxiety
- 6. Why are young people more vulnerable to addiction?**
The impulse control centre of the brain is not fully developed in young people, making them more prone to risky behaviours like substance use.
- 7. Can addiction be treated?**
Yes. Addiction can be successfully treated just like other medical conditions.
- 8. Who can you talk to if you have an addiction?**
A doctor, mental health professional or an addiction specialist.

Pre-Activity: True False Fix

True False Fix

Following the video discussion, invite students to participate in the **True False Fix activity** (found in [Brain Blast Booklet](#)). This activity will enable the teacher to get a further understanding of student' prior knowledge of brain health as well as the importance of **delaying the use of drugs during adolescence**. The [Substance Snapshots](#), and the [Brain Development and Substance Use](#) and [Substance Use and the Brain](#) infographics may be used to help the students answer some of the questions.

After the student complete the **True/False Fix activity**, use the following **True False Fix Teacher Discussion Guide** below to review the student answers. Sample corrected statements are included.



SUBSTANCE SNAPSHOT

Teachers may refer to the [alcohol](#), [cocaine](#), [methamphetamine \(crystal meth\)](#), [ecstasy \(MDMA\)](#), [nicotine](#) and [cannabis](#) Substance Snapshots to help inform the discussion.

Teacher Discussion Guide: True/False Fix

- Our brains are fully developed by age 16.
 - False. Corrected statement: Our brains are fully developed by age 25.
- Teenagers are typically more impulsive than adults. (Impulsivity means doing things suddenly without any planning and not considering the effects they may have.)
 - True. Due to changes in the brain during adolescence, teenagers typically show more impulsiveness.
- Substances we consume as teenagers have zero effects on our health as adults.
 - False. Corrected statement: Substances we consume as teenagers can have immediate and lasting effects on our health as adults.
- Teenagers who use drugs have a greater likelihood of having substance use disorders as adults.
 - True. Substance use disorders as an adult are greater if substance use is started during adolescence.
- Addiction always involves substance use.
 - False. Corrected statement: Addiction can involve substance use or other behaviours such as gambling or sex.
- Drinking alcohol when we're teenagers can affect our current mental health and future mental health.
 - True. Adolescent alcohol exposure can cause behavioural effects such as anxiety and depression which can continue as adults.
- The only time alcohol affects our memory is when we drink too much at one time.
 - False. Corrected statement: Alcohol can affect our memory even in moderate amounts, not just when consumed in excess.
- Since cannabis is legal for adults in Canada, it means it is safe for teenagers to consume.

Grade 9 Lesson 1: Learning Activity 2

TRUE FALSE FIX

Discuss each statement with your partner and then decide if it is true or false, checking the appropriate box. If false, correct and rewrite the statement to make it true.

1. Our brains are fully developed by age 16.	☐ True ☐ False	2. Teenagers are typically more impulsive than adults (impulsivity means doing things suddenly without any planning and not considering the effects they may have).	☐ True ☐ False
5. Substances we consume when we are teenagers have zero effects on our health as adults.	☐ True ☐ False	4. Teenagers who use drugs have a greater likelihood of having substance use disorders as adults.	☐ True ☐ False

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- False. Corrected statement: Even though cannabis is legal for adults in Canada, it can affect brain development and mental health in teenagers.
- 9. Cannabis helps people focus.
 - False. Corrected statement: Regular use of cannabis can impair thinking, attention, and memory.
- 10. Cannabis is addictive.
 - True. 1 in 6 teenagers who use cannabis develop an addiction. If a person smokes cannabis daily, the risk of addiction is 25% to 50%.
- 11. Vaping nicotine is only harmful to your body, not the brain.
 - False. Corrected statement: Vaping nicotine can be harmful to your body as well as brain development.
- 12. Teenagers who vape nicotine or smoke cigarettes are more likely to continue using nicotine as adults.
 - True. Adolescent nicotine use increases the chances of continuing to use nicotine as an adult, as well as using other drugs such as cannabis and alcohol.
- 13. It's ok to take someone else's prescription medication to get high because it was prescribed by a doctor.
 - False. Corrected statement: Taking someone else's prescription medication to get high is dangerous and illegal, even if it was prescribed by a doctor.
- 14. Inhaling substances you find at school or at home such as glue, aerosol sprays, or gasoline is dangerous for our health.
 - True. They contain poisons that can harm the brain and its development. It can also damage other organs in the body such as the liver and kidneys.
- 15. Using LSD (AKA acid) can cause effects on the brain that last into adulthood.
 - True. Serious and lasting problems such as psychosis or hallucinogenic flashbacks can occur after a teenager uses LSD.
- 16. Everybody drinks caffeinated beverages such as coffee or energy drinks so they must be ok for my brain health.
 - False. Corrected statement: Just because many people drink caffeinated beverages like coffee or energy drinks doesn't mean they're good for your brain health.
- 17. Tolerance can lead to increased substance use.
 - True. As tolerance develops, a person may consume larger amounts of a substance to experience the same effect.
- 18. Methamphetamine (AKA crystal meth) can cause major issues related to brain health and mental health.
 - True. Methamphetamine can cause seizures and stroke, as well as mental health issues, including paranoia, hallucinations, and delusions. These issues can persist into long-term health problems.
- 19. Withdrawal from a substance can include both physical and mental effects.
 - True. Withdrawal can include physical (e.g., headaches, nausea, muscle aches) or psychological (e.g., anxiety, depression, hallucinations) effects.
- 20. Deciding to delay drug and alcohol use until our brains are fully developed is the healthiest choice.

- True. Any substance use involves risk. Avoiding substance use until adulthood is the only way to completely avoid harm.

Exploration Part 1: Drug Database Carousel Activity

Students will engage in a **carousel activity** to learn more about different substances including **methamphetamine (crystal meth)**, **cocaine**, **cannabis**, **ecstasy**, **nicotine**, and **alcohol**. Explain to students that they will work in small groups to visit 6 stations to explore information about these substances including their **effects; signs and symptoms of addiction, withdrawal**, and **tolerance**; and how individuals may **reduce the harm** when using these drugs.



SUBSTANCE SNAPSHOT

Teachers may refer to the [alcohol](#), [cocaine](#), [methamphetamine \(crystal meth\)](#), [ecstasy \(MDMA\)](#), [nicotine](#) and [cannabis](#) Substance Snapshots to help inform the discussion.

Students will use the [Brain Blast Booklet](#) to answer questions on the 6 drugs. Students may work individually or in groups.



DRUG DATABASE

With your group, you will participate in a carousel activity to learn more about different substances such as cocaine, alcohol, cannabis, nicotine, methamphetamine (crystal meth) and ecstasy (MDMA). You will visit 6 stations to explore information about these substances including their effects; signs and symptoms of addiction, withdrawal, and tolerance; and how individuals may reduce the harm when using these drugs. Using your Brain Blast notebook, consult the infographics available at each station and record what you learn.

1 COCAINE - Substance Snapshots: Stimulants: Cocaine - Substance Use Disorder	2 ALCOHOL - Substance Snapshots: Depressants: Alcohol - Substance Use Disorder	3 CANNABIS - Substance Snapshots: Cannabis: Cannabis (Inhaled), Edible Cannabis, Synthetic Cannabis - Substance Use Disorder
4 NICOTINE - Substance Snapshots: Stimulants: Nicotine (Inhaled), Nicotine Pouches - Substance Use Disorder	5 METHAMPHETAMINE - Substance Snapshots: Stimulants: Methamphetamine - Substance Use Disorder	6 ECSTASY (MDMA) - Substance Snapshots: Hallucinogens: Ecstasy - Substance Use Disorder

Note: this activity needs to be prepared in advance. Ensure to prepare copies of the applicable [Substance Snapshots](#) and the [Substance Use Disorder](#) infographics. Students may also visit the [DECYDE website](#) to access the materials. Students will read the substance snapshots and different infographics at each station, discuss with their peers, and record what they have learned in their [Brain Blast Booklet](#).

Exploration Part 2: Quiz-Quiz-Trade

After the **Drug Database Carousel Activity**, review the students' understanding of substances from the carousel activity, including the **effects, addiction risk, withdrawal**, and **harm reduction strategies**. Use the cooperative learning strategy, **Quiz-Quiz-Trade** as a formative assessment activity.

- Provide each student with a question card.
- Students circulate in the room. At a moment indicated by the teacher, students stop and pair up with a classmate.
- Students quiz each other reading out the question on their cards. (Quiz-Quiz)
- Students then exchange cards. (Trade)

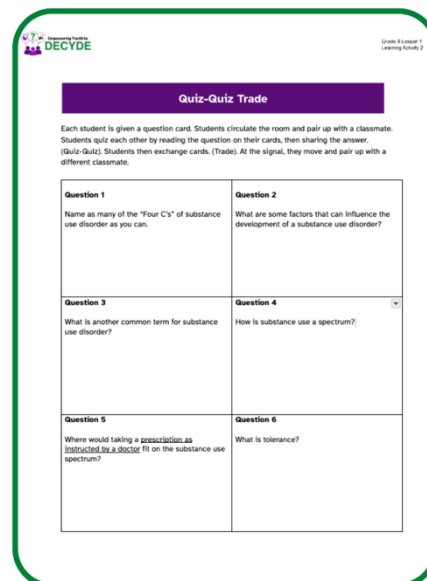
- At the teacher's signal, they move around until the teacher signals them to stop and pair up with a different classmate.
- Students repeat this several times.

This activity is [available as a PDF](#) for teachers to print and cut into cards for the students. Note: this activity needs to be prepared in advance.

The **Quiz-Quiz-Trade Teacher Discussion Guide** with explanations for the questions can be found [here as a PDF](#).

Following the activity, have a **class discussion**. Ask students to each share their questions and responses. Discuss and confirm responses and clarify any misunderstandings students may have. Focus the post-discussion on **brain health**, including **addiction potential**, **withdrawal effects**, and **harm reduction strategies** students may have learned through completing the learning activities.

In addition to the teacher guide provided, teachers may wish to refer to the [Harm Reduction](#) and [Substance Use Disorder](#) infographics and the applicable [Substance Snapshots](#) to guide the discussion.



Quiz-Quiz-Trade

Each student is given a question card. Students circulate the room and pair up with a classmate. Students quiz each other by reading the question on their cards, then sharing the answer. (Quiz-Quiz) Students then exchange cards. (Trade). At the signal, they move and pair up with a different classmate.

Question 1 Name as many of the "Four C's" of substance use disorder as you can.	Question 2 What are some factors that can influence the development of a substance use disorder?
Question 3 What is another common term for substance use disorder?	Question 4 How is substance use a spectrum?
Question 5 Where would taking a prescription as instructed by a doctor fit on the substance use spectrum?	Question 6 What is tolerance?



Sharing and Reflection

During the exploration activities, students considered the effects of substances on **brain health**, including **effects** of **addiction**, **tolerance**, **withdrawal**, and **harm reduction strategies**. Considering the information discussed, students can provide their reflection by answering the following questions found in their [Brain Blast Booklet](#).

1. Why should young people delay the use of drugs and alcohol? Be sure to support your answer using information you learned about brain health and addiction.
2. What is withdrawal and what role does it play in addiction?
3. What is drug tolerance? Choose one of these drugs—cocaine, cannabis, alcohol, nicotine, methamphetamine (crystal meth), or ecstasy—and explain how tolerance works with that drug.

Learning Activity 3: Substance Use Spectrum and Lowering Risk

Learning Activity Objectives:



- Analyze the effects of substance use on health and well-being
- Calculate potency of alcohol and nicotine in different concentrations of products.
- Explain the concept of a substance use spectrum, recognizing the varying patterns from no use to addiction
- Identify lower risk use strategies when using various substances including alcohol, nicotine, cannabis, cocaine, methamphetamine (crystal meth), and ecstasy (MDMA).
- Explore harm reduction strategies for safer substance use.
- Collaborate respectfully with peers.
- Demonstrate positive communication strategies.
- Use critical thinking skills to make decisions and problem-solve.

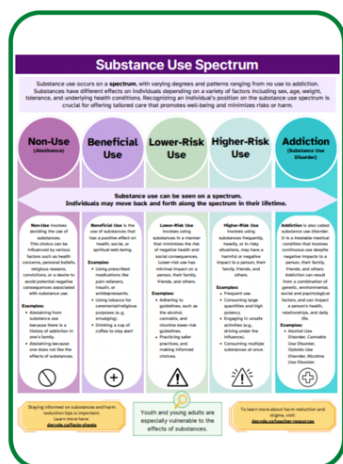
Materials:

- Discussion Prompts
- Pre-Activity: [True/False: Lower Risk Use Teacher Presentation](#)
- Exploration: [Brain Blast Booklet](#)
 - Calculating Amounts of Substances
 - Substance Use Spectrum Situations: [Teacher Discussion Guide](#)
- Infographics: [Substance Use Spectrum](#), [Harm Reduction](#), [Caregiver Substance Use](#)
- Substance snapshots: [Alcohol](#), [Cocaine](#), [Cannabis](#), [Nicotine](#), [Methamphetamine \(Crystal Meth\)](#), [Ecstasy \(MDMA\)](#)
- Sharing and Reflection

Introduction

Revisit and review classroom norms. **Emphasize** their importance and, if necessary, **adapt** by changing or adding new norms.

In **Learning Activity 3**, students will have a more in-depth conversation about **harm reduction and lowering risk**. Students will explore the concept of a **substance use spectrum**, where substance use occurs on a spectrum, with varying degrees and patterns ranging from **no use** to **addiction**. Substances have different effects on individuals depending on a variety of factors



including **sex, age, weight, tolerance, and underlying health conditions**. Recognizing an individual's position on the substance use spectrum is crucial for offering tailored care that promotes well-being and minimizes risks or harm. Teachers and students may refer to the [Substance Use Spectrum](#) infographic for more information.

Begin the learning activity with a discussion to **revisit** the concepts discussed in the previous learning activities and determine the students' understanding of **harm reduction** and the **substance use spectrum**.



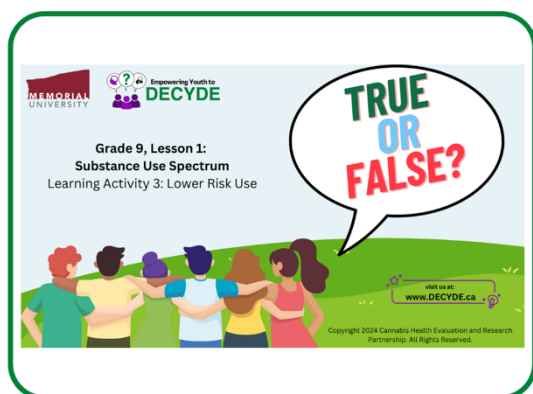
Discussion Prompts:

- What do you think the phrase "Substance Use Spectrum" means?
- The Substance Use Spectrum includes non-use, beneficial use, low-risk use, high-risk use, and addiction. Do you think that a person will stay at the same spot on the spectrum throughout their life?
- What are some ways to avoid high-risk substance use and addiction?
- What are some potential risks and consequences of using substances, even occasionally?
- What are some reasons people your age might try substances? How do you feel about these reasons?
- What are some healthy ways to cope with stress or difficult emotions instead of turning to substances?
- What information would you want to know before making a decision about using substances?
- What do you think makes people curious about trying substances?
- How can someone tell if their substance use is becoming a problem? What signs might indicate that someone needs help?
- What do you understand about addiction and dependence on substances? How can these impact someone's life?
- What support options are available for people trying to overcome substance use?
- What are some strategies for preventing substance use among young people?
- What is harm reduction?
- How can harm reduction practices help minimize risks associated with substance use?
- How can you set and maintain personal boundaries when it comes to substance use? Why is it important to respect others' boundaries regarding substances?
- How might peer pressure influence where someone falls on the spectrum of substance use? How can you support friends in making healthy choices?

- What do you think might lead someone to experiment with substances?
- How common do you think social or recreational substance use is among people your age? What are some reasons people might use substances in social settings?
- What factors do you think could contribute to someone using substances regularly? How might this affect their daily life and relationships?
- What is beneficial substance use?
- What are some reasons people choose not to use substances?
- What are some examples of beneficial substance use? (e.g., pain, ADHD, mental health, substance use disorder treatment)
- Sometimes low-risk substance use is called “casual” use. What does low-risk or casual substance use mean to you?
- Compare low-risk substance use to high-risk substance use. Why is high-risk substance use more harmful to your health, safety, and social life?

Pre-Activity: True or False Lower Risk Use

Following the opening discussion on the substance use spectrum, invite students to participate in the [True or False: Lower Risk Use activity](#).



This activity will allow the teacher to **gauge the student's understanding of harm reduction and lower-risk use**. The substances included in the previous learning activities will be explored, including alcohol, cocaine, cannabis, nicotine, methamphetamine (crystal meth), ecstasy (MDMA).



SUBSTANCE SNAPSHOT

Teachers may refer to the [alcohol](#), [cocaine](#), [methamphetamine \(crystal meth\)](#), [ecstasy \(MDMA\)](#), [nicotine](#) and [cannabis](#) Substance Snapshots to help inform the discussion.

The teacher may display the presentation using the [Lower Risk Use Teacher Presentation](#). The explanations to the answers are included on the slides.

The questions and explanations to the answers are also provided in the **Teacher Discussion Guide** below. This can be used for class discussion.

Teacher Discussion Guide: Lower Risk Use

1. Drinking a small amount of alcohol can be beneficial to our health.
 - False. Explanation: Drinking even a small amount of alcohol can have negative effects on your health. The safest option for your health is to avoid alcohol entirely.
2. Some people are prescribed cannabis by a healthcare professional.
 - True. Explanation: Cannabis products may be prescribed to treat several concerns including chronic pain and digestive problems. This type of cannabis use can be beneficial to health.
3. You can overdose on nicotine by vaping.
 - True. Explanation: The risk of nicotine overdose can be reduced by limiting the amount of times you vape daily and using vaping products with lower nicotine.
4. Most substances are easily recognizable by their appearance.
 - False. Explanation: Many substances are hard to identify from one another. For example, a white powder could contain any number of substances (e.g., cocaine, methamphetamine, heroin, or fentanyl). Avoid touching unknown substances as they may be harmful to your health.
5. Cocaine use can lead to serious heart problems.
 - True. Explanation: Cocaine use can lead to an irregular heartbeat and an increased risk of heart disease and heart attack.
6. Health Canada states that both women and men (19 years or older) should limit their alcohol consumption to 3 or fewer standard drinks per day.
 - False. Explanation: Health Canada defines low-risk drinking as consuming at most 2 standard drinks per week. Drinking more than 2 standard drinks increases your risk of experiencing health issues.
7. Using substances alone increases your risk.
 - True. Explanation: If you think you might use a substance, have a friend with you in case you need help and plan a safe ride home ahead of time.
8. It is recommended that people refrain from driving for 3 hours after inhaling (smoking or vaping) cannabis.
 - False. Explanation: It is recommended that people refrain from driving for at minimum 6 hours after smoking or vaping cannabis. There is zero tolerance, meaning no amount of cannabis is allowed to be in your system for drivers under age 22 and novice drivers.
9. Taking medications as prescribed by a healthcare professional can benefit our health.
 - True. Explanation: It is important that you only take medications that are prescribed to you and take them as instructed by your healthcare provider.
10. Consuming too much cannabis can result in acute psychosis.
 - True. Explanation: The risk of developing cannabis-induced psychosis is higher for those with a family or personal history of psychosis or schizophrenia.
11. It is safe to let someone sleep off the effects of alcohol after drinking too much.
 - False. Explanation: Alcohol poisoning can be fatal. If someone is showing signs of alcohol poisoning (vomiting, confusion, unconsciousness, slowed breathing), call 911 immediately! While waiting for help to arrive, put the person in the recovery position.

12. Substances like ecstasy and cocaine may be laced with fentanyl.
 - True. Explanation: People may ingest fentanyl unintentionally when taking another substance that is laced with fentanyl, causing overdose or death. To lower risk, testing strips can be used to check substances for fentanyl before use.
13. Calling 911 when witnessing an overdose may result in legal troubles if you are in possession of substances.
 - False. Explanation: The Good Samaritan Act protects anyone seeking emergency attention for themselves or someone else during an overdose. This means you cannot be charged for underage possession or simple possession of controlled substances, including violating parole and probation.
14. Early initiation of cannabis use can negatively affect brain development.
 - True. Explanation: It is best to avoid cannabis entirely until your brain is fully developed (around age 25).
15. Nicotine pouches are safe because they do not contain tobacco.
 - False. Explanation: Nicotine pouches can cause heart problems, mouth and gum damage, and can affect mental functioning and brain development. Just like other nicotine products, nicotine pouches are highly addictive!
16. Mixing substances increases health risks.
 - True. Explanation: Mixing substances can increase impairment, put more stress on the body, and make it harder to keep track of how much you have taken. Using certain substances together can increase the risk of overdose. To reduce health risks, it is best to avoid mixing substances.
17. Nicotine pouches contain more nicotine than cigarettes.
 - True. Explanation: Authorized nicotine pouches in Canada contain 4mg of nicotine. This is the same amount of nicotine as smoking 4 cigarettes. Some unregulated nicotine pouches can contain as much as 50mg of nicotine. This is equivalent to the amount of nicotine in 50 cigarettes!
18. Using e-cigarettes (vapes) with higher levels of nicotine increases your risk of addiction.
 - True. Explanation: If you vape, choose products with lower nicotine and reduce your frequency of use.
19. Methamphetamine use can have unwanted and harmful effects on mental health.
 - True Explanation: Methamphetamine use can cause paranoia (intense anxiety/fear and mistrust toward others) and psychosis (disconnect from reality), which can lead people to engage in risky behaviours.
20. Drinking a higher number of standard alcoholic drinks per week increases your risk of developing certain diseases.
 - True. Explanation: Drinking 3 to 6 standard alcoholic drinks per week increases your risk of developing several different types of cancer. Drinking 7 or more standard alcoholic drinks weekly increases your risk of heart disease and stroke.
21. Administering Naloxone to someone who hasn't consumed opioids could be dangerous.
 - False. Explanation: You won't hurt someone by giving them Naloxone when they haven't consumed opioids.
22. Food can affect how your body absorbs alcohol.

- True. Explanation: Eating food while drinking can help slow down your overall consumption and slow the absorption of alcohol.
- 23. Using alcohol during adolescence can lead to worse health outcomes in the future.
 - True. Explanation: To protect your health, it is best to delay initiation of alcohol use until adulthood.
- 24. Ecstasy use can lead to extreme dehydration, which can be fatal in extreme cases.
 - True. Explanation: People who use ecstasy can reduce the risk of dehydration by drinking water at regular intervals.
- 25. All alcoholic drinks contain the same amount of alcohol.
 - False. Explanation: Different types of alcohol vary greatly in strength. (see slide for HC guidelines).

Exploration Part 1: Calculating Amounts of Substances

As part of considering **lower-risk use of substances**, it is important for students to understand the amount of substance in various products. When choosing products, it is safer to **use lower concentrations of products as part of harm reduction**. In the following activity, students will consider the amount of nicotine or alcohol in various products. The teacher will review an example with the class, then students can complete the calculation activity in the [Brain Blast Booklet](#). Students may do this individually or in groups.

There are 2 parts of this calculation activity: **Part A Calculating Nicotine** and **Part B Calculating Alcohol**.

Part A: Calculating Nicotine

Students will analyze different **nicotine products** (vapes, chewing tobacco, pouches) and compare the amount of nicotine in the product to the amount in a package of cigarettes.

To calculate the amount in package of cigarettes, consider the following:

One cigarette delivers 1 mg of nicotine to the brain
 One pack of cigarettes delivers 20 mg of nicotine to the brain

Calculate the amount of nicotine in the product using this formula:

Container volume x nicotine concentration = total nicotine
 Total nicotine/20mg = packs of cigarettes equivalent

Example to review with students:

Chewing Tobacco Can contains 34g chewing tobacco

Each 1g of chewing tobacco contains 2.5 mg nicotine

34g per can x 2.5mg per 1g = **85 mg of nicotine**

85mg nicotine / 20mg cig package = **4.25 Packs**

Total amount in can: **85mg**

Equivalent to number of cigarette packages: **4.25 Pack**

Some common nicotine products and their concentrations:

- E-liquid (vape): 20mg of nicotine per mL
- Nicotine pouches: 6mg of nicotine per pouch
- Smokeless tobacco (chewing tobacco): 2.5g of nicotine per gram

Teacher Discussion Guide: Part A Calculating Nicotine

Product	Calculation
Vape Product A: Contains 2 mL of E-Liquid. Each mL of E-Liquid contains 20 mg of nicotine.	$2 \text{ mL} \times 20 \text{ mg/mL} = \mathbf{40 \text{ mg of Nicotine in vape}}$ $40 \text{ mg} / 20 \text{ mg per package} = \mathbf{2 \text{ packs}}$ Vape Product A has more nicotine than 1 package of cigarettes
Vape Product B: Contains about 5 mL of E-Liquid. Each mL of E-Liquid contains 20 mg of nicotine.	$5 \text{ mL} \times 20 \text{ mg/mL} = \mathbf{100 \text{ mg of Nicotine in vape}}$ $100 \text{ mg} / 20 \text{ mg} = \mathbf{5 \text{ Packs}}$ Vape Product B has more nicotine than 1 package of cigarettes
Vape Product C: Contains 13 mL of E-Liquid. Each mL of E-Liquid contains 20 mg of nicotine.	$13 \text{ mL} \times 20 \text{ mg/mL} = \mathbf{260 \text{ mg of Nicotine in vape}}$ $260 \text{ mg} / 20 \text{ mg} = \mathbf{13 \text{ Packs}}$

	Vape Product C has more nicotine than 1 package of cigarettes
Nicotine Pouch Product: Contains 6 mg of nicotine per pouch. There are 15 pouches in a package.	6 mg x 15 pouches = 90 mg of Nicotine in pouch 90 mg/ 20 mg per pack = 4.5 Packs Nicotine Pouch Product has more nicotine than 1 package of cigarettes

Part B: Calculating Standard Alcohol

Students will analyze different **alcohol products** and compare them to a standard drink. A **standard drink** is a measurement of the amount of pure alcohol in a beverage. In Canada, a standard drink is 13.45 grams or 17.05 milliliters of pure alcohol. This is equivalent to:

- A 12-ounce bottle of beer or cooler with 5% alcohol
- A 5-ounce glass of wine with 12% alcohol
- A 1.5-ounce shot of spirits with 40% alcohol

To calculate how many standard drinks are in a product, consider the following:

- The type of alcohol does not matter. Look at the **alcohol %** and the **volume**.
- Read the label to see the alcohol % for the type of alcohol (e.g. 5%, 7%, 12%, 40%, etc.).
- Look for the container volume (e.g. 340mL, 500mL, 750mL, etc.).

Calculate the amount of alcohol in the drink using this formula:

$$(\%/100) \times \text{\#mL} = \text{amount of alcohol}$$

$$\text{Amount of alcohol divided by 17} = \text{total number standard drinks}$$

This [online calculator](#) can also be used to convert drinks into Canadian standard drink sizes.

Example to review with students: 341mL bottle of 3.7% beer:

$$3.7\% / 100 = 0.037$$

$$341 \text{ mL} \times 0.037 = 12.6 \text{ mL}$$

$$12.6 \text{ mL} / 17 = \mathbf{0.7 \text{ Canadian standard drinks}}$$

Equivalent to the number of Canadian standard drinks: **0.7**

After the students complete the calculations, the teacher can review the answers with the students using the **Teacher Discussion Guide**. This is an opportunity for students to share their thoughts about the various products and discuss ways to make lower-risk decisions.

Teacher Discussion Guide: Part B: Calculating Alcohol

Product	Calculation
355mL of 7% cooler	$7\% / 100 = 0.07$ $355 \text{ mL} \times 0.07 = 24.9 \text{ mL}$ $24.9 / 17 = 1.5 \text{ Canadian Standard Drinks}$ Which has more alcohol: 355mL of 7% cooler
500mL of 5% beer	$5\% / 100 = 0.05$ $500 \text{ mL} \times 0.05 = 25 \text{ mL}$ $25 / 17 = 1.5 \text{ Canadian Standard Drinks}$ Which has more alcohol: 500mL of 5% beer
355mL can of 4% cooler	$4\% / 100 = 0.04$ $355 \text{ mL} \times 0.04 = 14.2 \text{ mL}$ $14.2 / 17 = 0.8 \text{ Canadian Standard Drinks}$ Which has more alcohol: 1 standard drink
750mL of 12% wine	$12\% / 100 = 0.12$ $750 \text{ mL} \times 0.12 = 90 \text{ mL}$

	90 / 17 = 5.3 Canadian Standard Drinks Which has more alcohol: 750mL of 12% wine
90mL (~2 shots) of 40% vodka	40% / 100 = 0.40 90 mL x 0.40 = 36 mL 36 / 17 = 2.1 Canadian Standard Drinks Which has more alcohol: 90mL of 40% vodka
100mL of 14% wine	14% / 100 = 0.14 100 mL x 0.14 = 14 mL 14 / 17 = 0.8 Canadian Standard Drinks Which has more alcohol: 1 standard drink
250mL of 15% Sour Puss	15% / 100 = 0.15 250 mL x 0.15 = 37.5 mL 37.5 / 17 = 2.2 Canadian Standard Drinks Which has more alcohol: 250mL of 15% Sour Puss

Exploration Part 2: Harm Reduction Situations

Following the conversation about considering the amount of substance in various products, invite students to work with a partner or a small group to complete the **Substance Use Spectrum activity** found in the [Brain Blast Booklet](#). The intent of this activity is for students to consider **lower risk use of substances** as part a **harm reduction strategy**.

Review the idea of a [Substance Use Spectrum](#), where substance use occurs on a **spectrum**, with varying degrees and patterns ranging from no use to addiction. Substances have different effects on individuals depending on a variety of factors including sex, age, weight, tolerance, and underlying health conditions. Recognizing an individual's position on the substance use spectrum is crucial for offering tailored care that promotes well-being and minimizes risks or harm.

SUBSTANCE USE SPECTRUM



Substance use can be seen on a spectrum. Individuals may move back and forth along the spectrum to each direction.

1. Mikael drives his ATV home after having several beers at his friend's shed.	
Spectrum:	☐ Non-Use ☐ Beneficial Use ☐ Lower-Risk Use ☐ Higher-Risk Use ☐ Addiction
Ways to lower risk:	
2. Willow has chronic pain and was prescribed a CBD product by their doctor. Willow takes the CBD as prescribed and finds that it helps with her pain a lot.	
Spectrum:	☐ Non-Use ☐ Beneficial Use ☐ Lower-Risk Use ☐ Higher-Risk Use ☐ Addiction
Ways to lower risk:	

Grade 9 Lesson 1

For this activity, students will read each situation and decide where it falls on **the substance use spectrum**. If the situation describes anything other than non-use or beneficial use, identify one to two possible ways to lower risk. You can refer to the [Substance Use Spectrum Infographic](#) for examples.



Teacher Discussion Guide

Substance Use Spectrum Situations

Students will read each situation and decide where it falls on the **substance use spectrum**. If students think that the situation depicts anything other than non-use or beneficial use, they will identify at least two possible ways to lower risk. Students can refer to the [substance use spectrum infographic](#) for examples.

1. Mikael drives his ATV home after having several beers at his friend's shed. Spectrum: Higher-risk use Ways to lower risk: - don't drive any motorized vehicle after drinking - get a friend who isn't drinking to drive the ATV - call someone to pick him up - walk home
2. Willow has chronic pain and was prescribed a CBD product by their doctor. Willow takes the CBD as prescribed and finds that it helps with her pain a lot. Spectrum: Beneficial use Ways to lower risk: N/A
3. Anika saw her favourite social media influencer advertising caffeine pills as a way to improve energy and focus. Anika has been using caffeine pills to stay up late and play video games with friends. Spectrum: Higher-risk use Ways to lower risk: - limit caffeine use - choose a lower-strength caffeine product (e.g., coffee, tea) - make sure to get enough sleep
4. Cori started vaping nicotine a few months ago. Recently, Cori has been vaping more and more often, experiencing cravings, and feels anxious and irritable when she cannot vape. Spectrum: Substance use disorder (addiction) Ways to lower risk: - talk to a trusted adult (e.g., healthcare professional, guidance counselor, parent)
5. Nico drinks a glass of water in between every alcoholic drink he has at his grad party. Spectrum: Lower-risk use

Model the activity with the students before they begin. The teacher should monitor student discussions to verify their understanding. Follow up with a whole class discussion to review students' responses. The [Teacher Discussion Guide](#) is available here as a PDF.

Engage students in a conversation to confirm their understanding of:

- The **spectrum of substance use**, including non-use and beneficial use as part of the spectrum.
- The **potential risks associated with substances**, including alcohol, cocaine, cannabis, nicotine, methamphetamine (crystal meth), ecstasy (MDMA).
- Evidence that students understand **"staying safer"** or **harm reduction** strategies.

Sharing and Reflection

During the exploration activity, students examined situations and considered lower-risk strategies for substance use. Students may now **reflect** on their learning by presenting on lower-risk strategies for various substances to the class. Students may work individually or in pairs to complete the reflection.

In this sharing and reflection activity, students will **pick one substance** that was discussed during this lesson, including **alcohol, cocaine, cannabis, nicotine, methamphetamine (crystal meth), and ecstasy (MDMA)**, and focus on **lower-risk strategies and harm reduction**. Individually or in pairs, students will **create a presentation** that focuses on lower-risk strategies and harm reduction approaches to substance use for the substance that they choose.

Presentation:

During the presentation, students should demonstrate their knowledge of the substance and lower risk approaches to substance use. They should include **at least 5 lower-risk approaches or harm reduction strategies about the substance**.

They can choose any type of method to sharing with the class, including:

- presentation slides
- poster
- infographic
- video
- skit
- poem
- other creative approach

Students will present their findings to class. Alternatively, they can record a video of their presentation and submit to the teacher.

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