**SCRIPT FOR YOUTH MARIJUANA PRESENTATION**

**What you will need: Projector and laptop, Newsprint pad and markers, lightbulb, large bowl (that could fit on someone’s head), Internet access if using PREZI, local resource information available to students.**

**Activities are *italicized.*** If you using the PREZI you may need to click a couple of times to get to each image.

**Image 1: Marijuana and the Brain:** Introduce yourself. “I’m here to talk about the brain and the effect marijuana has on the brain.

**Image 2: Science of Marijuana “**We are not here to tell you what to do. We are here to talk about the science of marijuana so that you can make informed decisions. Let’s startby looking at the science of marijuana”…

**Image 3: “What’s the difference between your brain and your parents brain “ “**So let’s start talking about the brain- Can you list some things that are easy for you to learn but might be difficult for your parents to learn?” *(List on newsprint pad*) “How many times faster do you think you process information than adults?”

**Image 4:** “**Your brain processes information 50-80 times faster than adults**” “So this is really peak learning time.”[[1]](#endnote-1)

**Image 5: “Brain Change and Effort” “**The ability of brain to change versus the effort it takes to make this change. “The “brain change” is showing how able your brain is to change and form depending on experiences you have/things you learn. The “effort” is showing how much effort it takes for your brain to change depending on this experience. You can see that for babies, they are learning and changing their brains so much with almost no effort. Whereas, for an older adult, it takes an enormous amount of effort to make even small changes in the brain. You are in the sweet spot where it still doesn’t take a ton of effort to make a change. This is the time to learn guitar, speak Spanish, play soccer, etc. This is a critical time for development (building roads-connections between neurons).”[[2]](#endnote-2)

**Image 7:** “Let’s talk more about the brain”

**Image 8:** Go through each segment of brain and what they are responsible for. “The brain develops from back to front. Frontal lobe is developing now: judgment, insight, decision making, and impulse control. The frontal lobe is not finished developing until a person is about 25 years old. So while the young brain processes information faster and more easily than adults, it is not yet fully developed when it comes to judgment”[[3]](#endnote-3)

**Image 9: *Lightbulb Activity: “***The differences between the brains of adults and teenagers have effects on how we make decisions. Let’s do an experiment that shows us some of those differences. Can I have a volunteer?”

 Hand the volunteer a lightbulb and ask them to hold it. Also put a large bowl on their head as a pretend MRI machine.

“In this experiment, adults and teens were hooked up to machines that measured activity in their brains. Then they were asked questions and the researchers looked at how their brains worked to come up with the answers.”

Tell the volunteer that they are going to answer one of those questions. Then instruct the volunteer to give a yes or no answer to the question:

 “Would you eat the lightbulb?”

 Explain that “As part of the experiment, the teens and adults were asked some regular questions but also some crazy questions like whether they would eat a lightbulb or set their hair on fire. The results showed that both teens and adults said “no” to “those questions. But the teens took slightly longer to say no. When the pictures of their brain activity were compared, it was clear that adult brains reacted negatively to those questions immediately- but teen brains actually stopped and thought about it for a minute (even though the teens themselves weren’t aware of it).

 “Does anyone know why it took longer?”

The reason for the difference is that teen brains are “wired” to consider new, novel experiences- so they are less likely to immediately rule out behaviors that may be potentially risky.” Point out that the answer to the question about eating a light bulb is actually pretty easy; ask the group:

 “What might this mean for choices that are less clear-cut: like using alcohol/other drugs, driving fast, etc.”[[4]](#endnote-4)[[5]](#endnote-5)

**Image 10: Pathways in the adult brain---pathways in the teen brain: “**While the young brain processes information faster, adults come to a logical decision faster, as they have strengthened these pathways over time so the brain knows right where to go and cuts through lots of potential blocks along the way (like a highway). A teen brain is more like a country road: a bit more round about, scenic, bumps and slower speeds- since the brain is just starting to develop these connections for decision-making, it takes you longer to get to the decision. What’s great about that is you might think of other stuff along the way to getting to that answer that adults wouldn’t think of because they aren’t passing those “scenic view-points. But it may also lead you to make decision that are more risky.”

**Image 11: Adult Neural Pathways:** During this stage of development, the brain is pruning out the less used connections, and strengthening the ones that are used and being built. “If you spend a lot of time playing music, practicing a sport, or working on school work, those connections in the brain get stronger. If you spend a lot of time playing video games or smoking pot, those connections get stronger”

**Image 12:** PROS and CONS: ***ACTIVITY*** Have a piece of newsprint paper on the wall and draw 4 quadrants: On top of the paper is “Not Using” and “Using” and on the side are “Pros” and “Cons” (like the drawing below).

|  |  |  |
| --- | --- | --- |
|  | **Not Using** | **Using** |
| **Pros** |  |  |
| **Cons** |  |  |

Starting with the upper right box (pros of using) have the group brainstorm as many reasons why teens might use marijuana *(i.e. fun, meet people, experience new things, relax, escape from stress, fitting in etc.)* Then go down to the right lower corner (cons of using) and have the group brainstorm what might be the downsides to using *(i.e. costs money, get in trouble, lazy, trouble learning etc.)* Then move to the lower left-hand corner (Cons of Not Using) brainstorm the downsides: *(boring, less friends, missing out, etc.)* Then move to the upper left corner (Pros of Not Using) brainstorm the positive things about not using (*i.e. better health, reach goals, save money, no addiction etc.).*

* Ask the group which box looks the best in the short term **(Pros of Using**).
* Then ask “If teens use long enough, which box could it lead to?” (**Cons of High Risk Using**).
* Then ask “Which box looks uncomfortable in the short term?” (**Cons of Not Using**)
* Then ask “If a student can get through that/practice it- which box could it lead to?” (**Pros of Not Using**).
* “Which box do we want to avoid?” (**The Cons of High Risk**)
* “What box do we want the most?” **(Pros of Not Using**).

**Image 14: Marijuana. Marijuana can impact your brain.**

**Image 15: Studies show that marijuana interferes with memory, attention and learning: “**Marijuana can interfere with short term memory (and can you have long term memory without having short term memory first? No), learning, attention, and motivation. There is an increase in theta waves in the brain which are the same waves seen in the early stages of sleep.  Over time, the theta waves stay present in the brain even when marijuana isn’t being used.”[[6]](#endnote-6)

**Image 16: Everyone feels down sometimes but marijuana can make you feel worse**.

**Image 17: In young people: “**Initially marijuana may calm and relax. Marijuana binds 4x stronger to receptors in the brain than naturally occurring brain chemicals. Eventually the brain can’t relax without marijuana. The brain wants to do what is easiest. The brain’s natural ability to calm itself decreases as marijuana takes over.”[[7]](#endnote-7)

**Image 18: “**Teens who use marijuana are 2x more likely to experience depression and 3x more likely to have suicidal thoughts.[[8]](#endnote-8)

**Image 19:** “Early use can lead to a substance use disorder” (1 out of 6)[[9]](#endnote-9)

**Image 19: Marijuana can take over what matters to you**

 ***ACTIVITY:*** Have the group brain storm what matters to them in both the short term and the long term (list on newsprint sheet). You might share that drivers who consume cannabis within three hours of driving are 2.5 times as likely to cause a vehicle collision as those who are not under the influence of drugs or alcohol.”[[10]](#endnote-10)

**Image 20: “**How might marijuana impact these things?”

**Image 21: “Marijuana can get in the way of your relationships.”**

**Image 22: Gut Feelings:** Ask the group if they have ever had a gut reaction to something, and what it means when we use that saying.  Have them describe what the sensation of a gut reaction is like (i.e. feeling like your stomach is clenching, or your pulse and breathing speeds up, feeling anxious, etc). If you get a gut reaction-what do you do?

**Image 23: *ACTIVITY:***

“So remember when we were doing the pro/con activity and decided what looked best in the long-term was not using. If you want to get to those long-term pros of not using: how do we make it more comfortable for ourselves to choose not to use or stop use? How do we make it more comfortable for our friends? You have a huge influence on your friends.

Have the group get into smaller groups of 3-4 people. Post this scenario on the wall:

You and a couple friends are hanging out on a Friday night. Plans are being tossed around to try to figure out what to do. One friend suggests going over to this guy’s house and you’ve heard he likes to smoke a lot of weed. One of your friends that you’re with has already been in trouble for smoking weed, and you know if this happened again it would be really bad for her/him. What are some ways that you could move the group toward making a different decision?

***POSSIBLE OPTIONS:***

Suggest a different thing to do. (**Diverting**)

Say directly that you are worried people will be smoking weed and you don’t want to do that because…(have the groups think of reasons why they don’t want to smoke) (**Active**).

Call another group of friends to hang out, text your parents to call you to say you have to come home. **(Passive**).

“All are great options. What are benefits/negatives to diverting, being active, being passive? By not saying anything you are affirming the decision the group is making. By putting it out there, you are giving it as an option- what may surprise you is that others feel this way as well. “

**Image: It’s your path- who can help you get to where you want to go?**

**In closing: Marijuana can have an impact on your brain, your relationships, your mental health, and can be addictive-especially if used at a young age. It can take control over what is important to you. We encourage you to talk more to adults you trust and find people who can help you get to where you want to go.**

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 [↑](#endnote-ref-1)
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3. See Endnote ii (above) [↑](#endnote-ref-3)
4. Baird, A. A., & Fugelsang, J. A. (2004). The emergence of consequential thought: evidence from neuroscience. *Philosophical Transactions of the Royal Society, 354*, 1797-1804.

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10. Hartman R.L. & Huestis M.A. (2013). Cannabis effects on driving skills. *Clinical Chemistry*, *59*(3), 478-492. [↑](#endnote-ref-10)