

Problem Solving & Decision-Making Skills Activity Guide Grade 6-12



Know Your Neuro

Quiz Questions

- 1) What does problem solving & decision-making NOT involve?
 - A. Choosing between possibilities
 - B. Brainstorming possible choices or solutions
 - C. Impulsively choosing what looks good
 - D. Choosing with the best outcome in mind
- 2) Kids and teens primarily use their _____ to problem solve and make decisions while their _____ is growing?
 - A. Limbic system (accelerator); Frontal Lobe (brake)
 - B. Frontal lobe (brake); Limbic system (accelerator)
 - C. Limbic system (brake); Frontal Lobe (accelerator)
 - D. Amygdala; Medulla Oblongata
- 3) Kids and teens are more likely to:
 - A. Let emotions get in the way of making good decisions
 - B. Overestimate rewards & downplay the risks
 - C. Act impulsively when making decisions
 - D. All of the above
- 4) What are the first three steps of problem solving & decision-making?
 - A. Gather information & ask open-ended questions
 - B. Go with your gut and choose off the top of your head
 - C. A and D
 - D. Analyze, evaluate, ask clarifying questions & choose the best solutions
- 5) What is NOT a danger of making assumptions?
 - A. Assuming you know the answers can lead to incorrect choices.
 - B. Assumptions lead to good communication and equity.
 - C. Assumptions can cause miscommunication.
 - D. Assumptions can damage creativity and exploration.
- 6) What is that last step in problem solving & decision-making, and what can interfere with it?
 - A. Sticking to the wrong choices because of your ego.
 - B. Making a series of bad decisions and not asking for help.
 - C. Self-correcting once your ego has gotten out of the way.
 - D. Defending your decisions even when you know they are wrong.

Classroom Activities

Decisions, Decisions, Decisions

In a small groups or share pairs, ask students to use the four steps of problem solving & decision-making to make the best choice in the following scenarios:

- A billboard advertises marijuana as a medicine that successfully treats depression and anxiety. You experience both at times, should you try it?
- Your parents' rule is 'no underage drinking' but they will be out of town next weekend. Should you throw a party and drink while they are gone?
- Two people in your peer group of five like to gossip and say mean things about others including the other peers in the group. What should you do?
- You share a XXX picture of yourself on Snapchat with someone who asked for it. They were not who they said they were and threatened to send it to your contacts unless you send them money?

Obstacles to Critical Thinking

Ask students if they encountered any of the obstacles to critical thinking below when thinking about the decision scenarios or in real life situations. If yes, ask students how they can overcome these obstacles.

- **Concrete Thinking:** A literal, black-and-white way of thinking where new information is taken at face value.
- **Confirmation Bias:** The tendency to interpret new evidence as true if it confirms what we already think or believe. The tendency to discount new information if it contradicts our views.
- **Intellectual Arrogance:** The idea that one's knowledge is superior or always right. An inability to see from another's perspective.
- **Logical Fallacy:** Any kind of error in reasoning that renders an argument invalid by distorting or manipulating facts, drawing false conclusions, or distracting you from the issue at hand.

MetaCognition

Metacognition is the ability to think about how you think by stepping outside of yourself in your mind, critically analyzing your assumptions, and admitting when you are wrong. In pairs, have students ask each other the following questions:

- How did you think about your solutions in the decision scenarios? Impulsively or slowly thoughtful?
- Does your ego or false pride get in the way of admitting when you are wrong?
- How many possible solutions do you think about before making a decision?
- How many people do you ask for help from before making difficult decisions?
- Do you ask other people's opinions or take others' perspectives when finding solutions to problems?
- What is your biggest obstacle when you are engage in critical thinking? How can you overcome it?