Abstract Reasoning Skills Activity Guide Grade 3-5

Know Your Neuro

Quiz Questions

1) What abstract reasoning? **Answer:** The ability to think about things in new and different ways.
2) How do we practice abstract reasoning? **Answer:** By growing our critical thinking skills.
3) What is critical thinking? **Answer:** Thinking about things from many different perspectives and asking questions to help make the most logical decisions.
4) What are the benefits of being able to think critically and reason abstractly? **Answer:** Critcal thinkers can analyze problems in deeper ways, see many different perspectives, and develop their own independent theories.
5) What is a metaphor? **Answer:** A metaphor describes something by saying that it is something else to make a point.
6) What is a hypothetical? **Answer:** A situation or example that is not real but imagined as an example to inspire thought.

Critical Thinking Section

See, Think, Wonder

In small groups, ask students to discuss their opinions about a hot topic such as what cereal is the best, the age kids should get to use smartphones, what video games are not healthy for kids to play, etc.

Ask students to practice the following three steps when they listen to their peers' opinions:

1) SEE - Carefully observe and listen to your peers. Take notes on what they say.
2) THINK - Make thoughtful observations. Try not to think about your own thoughts. Focus only on what the person talking thinks.
3) WONDER - Wonder about different meanings and perspectives. See the point the person is trying make.

Ask students to discuss:

a) How these steps improved their higher-level thinking strategies.
b) What obstacles interfered with their thinking skills such as bias or arrogance.

Decisions, Decisions

Apply abstract (conceptual) reasoning skills to these problem scenarios to decide what to think and do.

A. At a party, you see a few of your friends vaping who previously said they never would use drugs.
B. A friend tries to talk you into doing something that you really do not want to do.
C. A friend wants to teach you how to cheat on your homework.
D. Your peer group wants to look at websites with content that makes you uncomfortable.
E. Your best friend feels depressed and hints about hurting themselves but asks you not to tell anyone.

The Fosbury Flop

Watch the video *How Critical Thinking Can Change the Game* at www.youtube.com/watch?v=5VX7sojco3s
Discuss how Dick Fosbury used critical thinking to think outside of the box and create a new high-jump method that became the new norm. Discuss how Fosbury might have handled the laughs and criticism he received from others.

Likes & What Ifs

Discuss the definition of metaphors and hypotheticals. Give examples. Brainstorm to see how many of each students can think of.

Critical Thinking Obstacles

Teach students the definitions below and brainstorm for examples. Then, discuss how they interfere with critical thinking.

Concrete Thinking: A literal, black-and-white way of thinking where new information is taken at face value.

Confirmation Bias: Interpreting new evidence as true if it confirms what one already thinks, discounting new information if it contradicts it.

Intellectual Arrogance: The idea that one's knowledge is superior, inability to see from another's perspective.

Fake News (or Logical Fallacy): An error in reasoning that renders an argument invalid by distorting or manipulating facts, drawing false