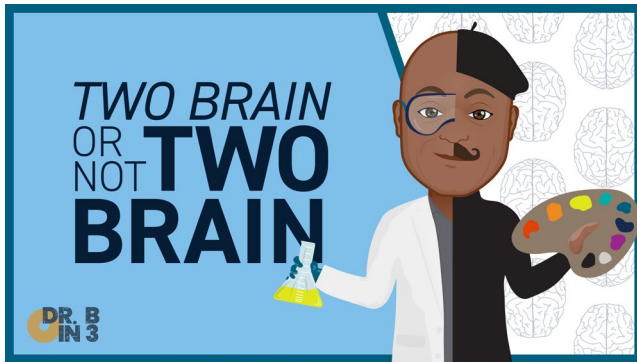


TWO BRAIN OR NOT TWO BRAIN



**Right brain or left brain? Fact or fiction?
Join Dr. B for the answers.**



<https://www.youtube.com/watch?v=68x8PdqYNiM>

Quick Questions

1. Were you surprised to learn that people are not left-brained or right-brained?
2. What do you excel in? Art? Science? Math? Writing? Sports? Listening? Cooking? Socializing? List at least three things.
3. Have you heard of the idea that people are either left-brained or right-brained? Have YOU ever been told that you are one or the other?

DEEP DIVES

1. Think of something you are working on right now. It could be a school assignment, a sport or instrument you're practicing, or an art or writing project – anything you're working on. Why might it be important to use logic while you work on it? Why might it be important to use creativity while you work on it? Will a mix of logic and creativity produce the best end result?
2. Imagine someone tells you that they are only left-brained and could not possibly do anything creative. Even though science clearly shows that people are not bound by their brain hemispheres, this person still feels strongly about this. Why do you think they might feel that way? What would you tell them?
3. The idea of being either "left-brained" or "right-brained" was proposed by scientists in the 1800s. After years of additional evidence, though, modern scientists now know that this idea is incorrect. This shows the process of science: new experiments uncover new evidence that improves our understanding. How do you feel when our understanding of a topic changes? Can you think of any other examples in which our understanding has changed based on new scientific evidence?
4. What are some risks and complications that come with using internet quizzes that claim to teach you more about yourself? Are there any benefits of using internet quizzes?
5. Dr. B explains that one problem with the idea of being either "left-brained" or "right-brained" is that it does more harm than good: it limits how people see themselves. Can you think of other notions about identity or ability that can limit people? Conversely, what notions about identity or ability might help people grow?

Engaging in Science Discussions



Recommended Grade Level: Middle and High School

Objective: To engage in open-ended discussions about critical science topics. While leading these discussions, it is important to ensure that everyone is heard, and everyone is treating one another with respect. There is no “right answer” during these discussions, and it’s okay to respectfully disagree.

Additional Notes: We recommend having these discussions multiple times with the same group of participants. This provides the opportunity to explore different topics and improve one’s abilities to have successful conversations about STEM topics. Quick Questions are optional and are recommended to be used as warm-up questions.

Materials: TV or projector Paper and writing utensils

TIMELINE (30 – 40 MINUTES)

5 min	10 min	5 min	10 min	10 min <i>(optional)</i>
Intro + prompts	Watch segment	Think/write time	Share with partner	Small groups

Intro (5 min) Before starting, select one Deep Dive question. Tell the group you will be asking them a question that has no right or wrong answer. After they watch the clip, they will have time to think about and write their response. They will share their response with a partner or small group. Now share the question you selected.

If participants are new to these sorts of discussions, you may want to review the following concepts:

- When you are sharing your responses, provide reasoning and evidence. Reasoning is your own thinking behind your answer. Evidence is facts that support your answer, such as historical facts or scientific facts. You may also have experiences from your own life that support your answer.
- When listening to your classmates, ask questions. The purpose of questions is to better understand their thought process, not to challenge them. Some ways to frame questions are: “I didn’t understand X.” “Could you explain Y again?” “What do you mean by Z?”
- If someone asks you questions, provide clarification. Explain your reasoning and evidence. Remember that there are no right or wrong answers.

Watch the segment (10 minutes)

Think/write time (5 minutes): Participants write down their answers

Share with a partner (10 minutes): Pair up participants. Each person has 5 minutes to share their response and answer questions from their partner. Then switch so each partner gets a turn.

(Optional) Small groups (10 minutes): Put participants in groups of 4 for share-outs and conversations.

(Optional) Homework prompts: Expand your response into a report, picture, poem, essay, short story, song, or performance. Or, write your own discussion question for the group.