# HOW TO USE **CURIOSITY**TO BOOST STUDENT MOTIVATION



**Curiosity** is a universal motivator to the brain. The brain is constantly searching for meaning, understanding, completion, answers to questions they've thought of themselves, or ones you've prompted.

## CURIOSITY INFLUENCES LEARNING AND MEMORY



Curiosity activates the brain's reward system. Dopamine is released as a "pleasurable biological prompt" when there is chance for perceived or anticipated success or reward.



Curiosity enhances neuroplasticity factors in the hippocampus (which activates new explicit learning).



The brain quickly desensitizes to dopamine, as evidenced by the drug addict who craves a bigger dose or stronger drug. This is why a strategy might work a few times, but then its impact wears off.

USE A VARIETY OF STRATEGIES TO ENGAGE STUDENTS IN A STATE OF CURIOSITY.

## **STATEMENTS**

### THAT CAN EVOKE CURIOSITY

- "You might be curious about ..."
- "I can see that some of you are curious about ..."
- "What do you notice?"
- "I wonder ..."
- "Have you ever thought about why ..."
- Thought-provoking question "Why do think ..."
- "What do you think would happen if ..."

## STRATEGIES

#### THAT CAN EVOKE CURIOSITY

- Place an object on a table in front of the room (Why is that there?)
- Place an item in a box (or covered with a towel) in front of the room (What's in there?)
- Write a statement on the board that is incomplete (ie. "The #1 most used app by teens is \_\_\_\_\_.")
- Storytelling (What will happen in the story AND why you are sharing it?)
- Hang a partially completed content poster on a wall
- Wear a costume that relates to your lesson for the day (Why is she wearing that?)
- Create a mystery for students to solve that relates to the lesson
- Alter your room set-up for the day (Why does our classroom look different today?)

Kidd, C., & Hayden, B. Y. (2015). The Psychology and Neuroscience of Curiosity. Neuron, 88(3), 449-460.

Lloyd, K., & Dayan, P. (2015). Tamping ramping: algorithmic, implementational, and computational explanations of phasic dopamine signals in the accumbens. PLoS computational biology, 11(12), e1004622.

