Meet Buster Lesson Plan

Meet Buster
Early Elementary

Target Concepts

- The brain has a full time *reward-seeking system* that is constantly looking out for potential, awesome opportunities.
- Perceived opportunities trigger a *grab-and-gulp impulse.* This impulse is called a *Buster Bam*.
- Animal *and* human brains both have *reward-seeking systems,* and therefore both animals and humans have *Buster Bams.*

Lesson Preparation

- ✓ Read and/or review the video, script, lesson plan, and handouts
- ✓ Print "Animal Myg Moments in a Hat" review worksheet (one copy for instructor)
- ✓ Cut out each animal from the "Animal Myg Moments in a Hat" review worksheet and place in a hat or bucket
- ✓ Print "Animal Buster Bam" worksheet (one per student)
- ✓ Print "Home Letter"and "Meet Buster Book" (one per student)

Review

This review activity is designed to activate students' learning from the previous lesson. Students are asked to review the function of the amygdala and impulses/ reactions that come from Myg Moments. The following script is intended to provide a general guide for how you may choose to lead this activity:

- "Before we begin our new Brain Talk lesson, let's review what we remember about the amygdala (Myg) and Myg Moments."
- [Individually, in pairs, or in small groups] "Discuss what you remember about Myg and its job in the brain."
- [Individually, in pairs, or in small groups] "When Myg senses a threat, it creates a Myg Moment in the brain. A Myg Moment leads to a fight, flight, or freeze impulse, and then the brain tells the body to react to avoid the threat."
- (Using the provided animals from the Animal Myg Moment in a Hat review worksheet) "I am going to pull out an animal from this hat. I'll call on a student to tell me something that would give that animal a Myg Moment and what its reaction might look like."
- What other animals can you think of? What might give (target animal) a Myg Moment? What might its reaction look like?" (Class discussion to follow)

Primer

This primer activity is designed to prepare students for the lesson by activating known information to scaffold new learning. Students are asked to consider opportunities that seem awesome to them.

The following script is intended to provide a general guide for how you may choose to lead this activity:

- "Today we'll be talking about the part of the brain that is always on the lookout for things that seem awesome. What kinds of things or activities do you think are awesome?"

Whole class activity: Make a list of at least ten things that students identify as being awesome. Ask students to vote on the most awesome in order to help students identify what the class as a whole finds awesome.

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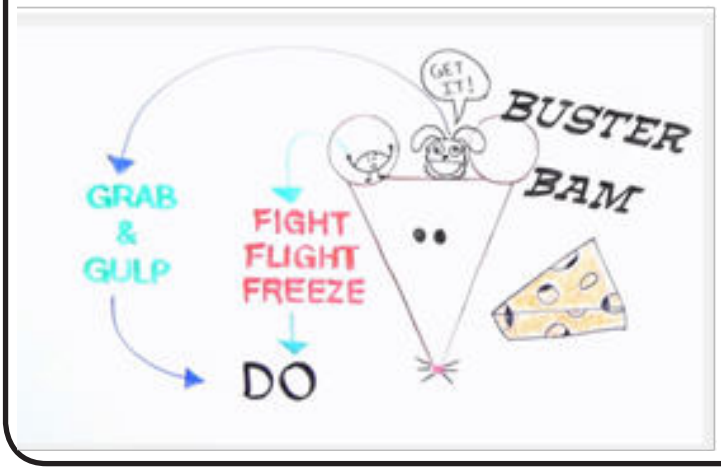
Watch Video: Meet Buster



Guided Instruction

Discussion Points:

- What gives Mr. Mouse a Buster Bam impulse? Why are those things awesome for Mr. Mouse?
- Buster Bams lead to a special kind of reaction: grab-and-gulp. Buster tells the brain to grab-and-gulp as much of the awesome thing as quickly as possible.
- For animals like Mr. Mouse, Buster Bams exist to make sure they can stay alive. What are some things that other animals might grab-and-gulp? (e.g., squirrel, dog, shark, bear, etc.)
- Why would animals sometimes need to grab-and-gulp an awesome thing right now instead of waiting? (e.g., squirrel needs to gather nuts for winter; shark needs to catch its prey before it swims away or something else eats it)
- Humans have Buster Bams too. Common grab-and-gulp reactions in humans include over indulging in pleasurable activities and acting on a satisfying impulse before considering the consequences, which we refer to in Brain Talk as moving faster than the speed of thought. What are common situations/ triggers for human Buster Bams?

Activity:

"Animal Buster Bam" worksheet

Background Information

- The *basal structures* (basal ganglia) are a group of interconnected subcortical nuclei that form one of the brain's fundamental processing systems: *the pleasure-and-reward circuit.* Located within limbic system of the brain, these structures are the brain's *opportunity-seeking system* keeping a lookout for things and situations that seem pleasurable.
- Pleasurable opportunities are registered by the *basal structures* which in turn block information from going to the higher-order thinking areas of the brain while simultaneously inititating a reactionary survival instinct that signals the conscious brain to act in whatever way is necessary to achieve the desirable outcome. We have named this signal *the grab-and-gulp impulse*.
- The *grab-and-gulp impulse* is a survival instinct has helped keep animals (and humans) alive by helping them react quickly in a world of sparse resources.
- However, for humans, this survival instinct is not always helpful. For this reason it is important to recognize this instinct for what it is, in order to choose whether following it will be helpful or harmful in the long run.
- Common *grab-and-gulp reactions* in humans include over indulging in pleasurable activities, and acting on a satisfying impulse before considering the consequences, which we refer to in Brain Talk as *moving faster-than-the-speed-of-thought*.

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Teacher Notes

- In humans Buster Bams can lead to two types of reactive behaviors: over indulging in pleasurable activities, and acting on a satisfying impulse before considering the consequences.
  - The term grab-and-gulp reactions refers to the primary signal from the pleasure-and-reward circuitry in the brain, the urge to get as much of the pleasurable opportunity as possible .
  - In the guided discussion we introduce the idea that acting on a satisfying impulse before considering the consequences is another type of Buster Bam reaction, which in Brain Talk we call moving faster-than-the-speed-of-thought.
- In the video the idea that Buster can be trained just a little is introduced to lay the foundation for further work on using a mindful moment to create space in which to use critical thinking to generate a thoughtful response that can replace an impulsive reaction. The concept of training your Buster with mindfulness will be further developed in Unit 5: Meet the Human Brain.

Taking it Further

- The individual pattern of what types of situations trigger our grab-and-gulp reactions is one way we are all unique, and at the same time the triggers of our grab-and-gulp reactions are often the areas of commonality upon which our friendships are built. These concepts of how we look for pleasure in ways that are the same and/or differnent from others can lead to some great social-emotional learning opportunities:
  - One activity is to pair your students into groupings with peers they don't think of as "friends" and invite them to try to find three-five common grab-and-gulp triggers.
  - It can be interesting to see which activities the majority of class thinks are pleasurable as compared to the ones that are more individual interests. Invite each student to list their top five Buster Bam Triggers and then analyze the data in some form. Are there any triggers with which everyone agrees? What about outliers- how many triggers are unique to one person?
- Some games are built to capitalize on quick reactive thinking, (e.g.,Blink, Smack-it, Ratuki) while other games are designed to elicit slower strategic thinking (e.g.,Connect 4, Set,, Rummy).Playing both types of games and identifying which type of thought is activated is a way to explore the idea that each type of thinking is appropriate in the right setting. Introduce to your class some games from both categories. Play them and decide which type of thinking is helpful for each game.