

Meet Ms. Hipp Lesson Plan

Target Concepts

- The brain has a personal memory librarian called the hippocampus (i.e., Ms. Hipp) that stores and manages our experiences for future reference.
- Ms. Hipp records experiences (i.e., the facts and the feelings) from a personal point of view, so different people may have different recollections of the same experience.
- Ms. Hipp communicates with Myg and Buster to keep track of experiences that feel threatening or awesome.
- Gentle emotions during an experience support clear facts (i.e., clear recall of facts), while strong emotions during an experience tend to lead to fuzzy facts (i.e., fuzzy recall of facts).

Lesson Preparation

- ✓ Read and/or review the video, script, lesson plan, and handouts
- ✓ Print "Spot the Differences" primer worksheet (one copy for instructor)
- ✓ Print "P.A.S.T. Facts and Feelings" worksheet (one per student)
- ✓ Print "Home Letter" and "Meet Ms. Hipp Book" (one per student)

Review

This review activity is designed to activate students' learning from the previous lesson. Students are asked to review what they learned about the human brain and the roles that Myg and Buster play in the human brain.

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 human brain."
- "The human brain has two hemispheres, just like planet Earth has two hemispheres. Each hemisphere can be divided into five lobes. The lobes have specialized jobs, and they all connect with one another to help the brain communicate with itself."
- "Deep down in the center of the brain, humans have a feeling brain, where Myg and Buster are located. This part of the brain is constantly in communication with the thinking brain, located right behind your forehead."
- "By regularly practicing the 4 types of Taming Tools: Mindfulness, exercise, spending time with friends, and practicing gratitude, you can train your Myg to feel safer and your Buster to be less excitable."
- "But sometimes your Myg and your Buster can still get super excited and send a *Do Message* to your nervous system telling you to be a *Doer* and react impulsively, even if the impulsive action is not your best choice. When this happens, we can use the taming tool *Pause and Breath* to help us calm down and remember that with the big thinking cap inside our human brains we can be *Deciders*."
- "Pause and Breathe gives you time to put on you thinking cap and be a Decider. When you practice Pause and Breath, you are practicing using a super power that can help you in those situations when your emotional brain wants you to be a Doer.
- Practice Pause and Breath as a class.





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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 how details are recorded and recalled by their personal memory centers.

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 brain's personal memory librarian, called the hippocampus. This part of the brain keeps track of our memories by remembering who was there (i.e., people), what happened (i.e., actions), where it happened (i.e., space), and when it happened (i.e., time). Together, this information creates the P.A.S.T. facts."
- "Let's practice using our memory centers by noticing which P.A.S.T. facts we can identify in these pictures." (Provide "Spot the Differences" primer worksheet to each student)
- "Which P.A.S.T. facts stayed the same across the two pictures? Which P.A.S.T. facts differed between the two pictures?" (Class discussion about similarities and differences between the pictures to follow)

Watch Video: Meet Ms Hipp



<u>Background</u> Information

- The hippocampus is a small, curved structure in the brain that is located within the temporal lobe, adjacent to the amygdala.
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 The hippocampus is our central organ for learning, and is directly involved in the formation of new memories about experienced events (i.e., episodic memory or autobiographical memory).
- Acting as the brain's librarian, the hippocampus is a memory indexer, connecting emotions and senses (such as smell and sound) to memories, as well as sending memories out to the appropriate part of the cerebral hemisphere for long-term storage, and retrieving them when necessary.
- When an episodic memory
 is retrieved, one experiences
 the memory as a mind movie
 from one's own point of view.
 Thus, episodic memories have
 a subjective quality that can be
 influenced by strong emotions.
- The hippocampus is unique because it is one of only two brain areas where new brain cells continue to be generated throughout our lives, a process called adult hippocampal neurogenesis.
- Increased levels of physical exercise enhances both the birth rate and the survival of new hippocampal brain cells, which in turn results in improved memory and learning.



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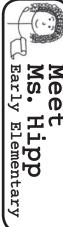
Guided Instruction

Discussion Points:

- The hippocampus (i.e., Ms. Hipp) is the brain's personal librarian. As such, it records memories from a personal point of view, keeping track of the information that seemed important to the individual.
- Ms. Hipp records the P.A.S.T. facts and feelings for all of our experiences.
- P.A.S.T. facts include the people, actions, space, and time of an experience.
- The feeling(s) may be gentle or strong during an experience.
- Because Ms. Hipp records the memory of each individual's experience, people may remember the same event or activity differently.
- Sometimes these differences in memory can lead to conflict. Introduce this concept using universal scenarios:
 - Students may relate to conflicts that arise from differing memories over whose turn it is to complete a non-preferred task based on how often they remember having done it in the past, or a time when the ownership of a preferred item is under debate.
- Engage students in class discussion about school situations when people had differing memories and perspectives about how a shared event unfolded (e.g., recess conflicts, group work difficulties, etc.).
- While the P.A.S.T. facts often remain clear during situations with a gentle emotional experience, strong emotions (e.g., furious, humiliated, distraught, terrified, etc.) tend to lead to fuzzy facts.
- Discuss memories with clear facts versus fuzzy facts.
 Explore the impact of one's emotional experience on recollection of the P.A.S.T. facts.

Activity:

• "P.A.S.T. Facts and Feelings" worksheet





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Teacher Notes

- Some of the concepts introduced in this unit may be too advanced for younger students. You are encouraged to use your discretion to introduce the parts of this lesson that feel relevant to your students.
- If a student is extremely emotionally dysregulated, it is important to first help him/her re-regulate before engaging in review and reflection of the P.A.S.T. facts. This allows the thinking brain to re-engage for improved metacognition during reflection.
- Regularly practicing the Taming Tools introduced in Unit 5 helps build the self-regulatory capacities of your students, and for this reason we call them proactive self-regulatory activities.
- The Taming Tool: *Pause and Breath*, introduced in the primer of this lesson, is a powerful tool in that it can be used both proactively to build self-regulatory capacities AND responsively to help calm a dysregulated child down.

Taking it Further

- There are many wonderful books exploring how the differing perspectives of different characters led to different P.A.S.T. facts and feelings being recorded by each character. Consider creating a unit where you read the original story, as well as the version told by a different character, and fill out a P.A.S.T. Facts and Feelings worksheet for each main character.
 - o The True Story of the Three Little Pigs by Jon Scieszka.
 - Seriously, Cinderella Is SO Annoying!: The Story of Cinderella as Told by the Wicked Stepmother by Trisha Speed Shaskan.
 - Trust Me, Jack's Beanstalk Stinks!: The Story of Jack and the Beanstalk as told by the Giant by Eric Braun
 - o The Other Side of the Story: Fairy Tales with a Twist by Nancy Loewen
 - Another Other Side of the Story: Fairy Tales with a Twist (The Other Side of the Story) by Nancy Loewen

