FAMILY ACTIVITY: HANDBRAIN

All scientists need some understanding of how the brain works— it helps them understand themselves! And some scientists study the brain all of the time.

In this activity, youth will use their hand as a model to understand how their brain works—especially in moments when they are overwhelmed. This metaphor is also designed to help youth think about how they might be able to more effectively calm down.

MATERIALS AND INSTRUCTIONS

Materials
- A device to play this video (optional)

Instructions
1. Provide an overview of the parts of the brain and their function (Use language below or watch this video)

Look at your closed fist. Your wrist is like the brainstem. That part of the brain is responsible for being sure that your heart beats, that you blink and that you breathe. It's really important, but we don't have to think about it a lot.

Your thumb is like the limbic system. Sometimes this is called the Lizard brain. This part of the brain scans for danger. It's really useful when we are in a dangerous situation. It can help us run fast, fight strong, or freeze and hide. So it's really important when we are in danger, but otherwise it can make things difficult.

Now your fingers are like the prefrontal cortex. This is the ‘Smart part’ of your brain. This part helps you make decisions, it’s how we know language, and it understands and processes information.

When you are really mad, sad, scared, or excited, you can’t use the smart part (prefrontal cortex) of the brain. You ‘flip your lid’. (Move your hand like the second picture and have youth do the same)

When you ‘flip your lid’, all you rely on your limbic system (lizard brain). So do lizards make good decisions?

That’s why when we have those strong emotions it’s hard to make good choices.

2. Review the parts of the brain you just learned about
   a. First, say the words and have campers point on their arm to the (in any order):
      i. Brainstem
      ii. Limbic system
      iii. Lizard brain
      iv. Prefrontal cortex
      v. Smart part
   b. Then, point on your arm and have campers shout out the name of the area.
3. Brainstorm ways to calm down or “unflip your lid”
4. Practice or demonstrate how we can calm down

QUESTIONS TO EXPLORE

1. Do you know the names for any other parts of the brain? What do those parts do?
2. Could we use this information to understand ourselves and help make better decisions?
3. What does your body feel like when you are not calm or when your ‘lid is flipped’?
4. Do you know anyways to calm down/ un-flip your lid?

IDEAS TO INCLUDE YOUNGER SIBLINGS! (ADAPTATIONS FOR 0-5 YEAR OLDS)

- Using their hands is a great way to connect with younger children in the family. Consider adding language to the discussion that will be more accessible to them as well, such as the “feeling part” and “thinking part” of their brain.
- Little ones are likely to recall times when they were sad, frustrated or angry with some help from you and they will benefit from an introduction to the ideas if they are clearly linked to specific memories of times when they had to use these different areas of the brain. For example - working on a puzzle at school uses the thinking part, where having a fight with a sibling probably uses more of the feeling part.
- Little ones may have a hard time grasping the idea of an organ inside them that controls how they behave - but will definitely connect to calm down techniques like the one presented in the video. If you have a snow globe in the house - consider pulling it out for a hands-on example of how things can get jumbled up and then settle down with slow, steady breathing.

REFERENCES, MODIFICATIONS, & EXTENSIONS

References

- This video provides a good overview of the part of the brain and how they work when we are stressed or calm.
- If you are looking for other ways to calm down check out some of the other Y on the Go Activities
  - In Magnificently Messy you can learn to make a calming jar.
  - In Superheroes! Learn how the ways we stand can influence how we feel
  - In Animal Kingdom, try out Animal Yoga
  - In Aloha, check out Aloha breath for a deep breathing strategy.