

February

Extended STEAM Activity



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Watch out for these words!

Sensory

relating to our senses (sight, hearing, smell, taste, touch)

Facial Expression

movements and positions of facial muscles that communicate feeling





Why do we smile?

Sometimes, we smile on purpose, like when we thank a cashier or wave at someone. Other times, a smile appears on our face as a sensory reaction. When we see, hear, smell, taste, or feel something that makes us happy, we smile without thinking about it. Think about seeing someone you love, hearing a funny joke, or being tickled. Sensory experiences like these send signals to our brain that tell us to smile—and this tells others that we are happy.

What else does our face say?

Just like smiling lets people know we are happy, other facial expressions express different feelings. The muscles in our eyes, nose, and mouth work together to form facial expressions. We might widen our eyes when we're surprised or scrunch our nose when we're angry. And our mouth might go from a wide smile when we're happy to a thin frown when we're sad.

Question for Exploration

Is your mouth bigger when you're happy, sad, excited, or angry?



Smile Wide Experiment

Objective: Identify different facial expressions and practice measuring.



· Ruler

· Paper

· Pencil

Divide your paper into 5 rows with 3 columns and fill it in like the chart below:

Emotion	Measurement Guess	Actual Measurement
Нарру		
Sad		
Excited		
Angry		

- Think of a facial expression that represents each emotion. Then guess the measurement
- Make the facial expressions for each emotion, and measure the largest part of your mouth for each one.
- 4 Compare your measurements, and organize them in order from small to big.

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What's Going On?

Let's Make Our Guesses

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Why do you think your mouth was bigger or smaller for certain emotions?





Science Explained

You most likely found that your mouth measurements were bigger for positive emotions like happy or excited and smaller for negative emotions like angry or sad. Why?

When we're angry, we show disapproval by tightening our lips. Like many other animals, we might even pull our lips up to reveal clenched teeth to let people know we are angry. When we're sad, we pull different parts of our face in close. The chin is pulled up to our lips, lip corners are pulled down to our chin, and the corners of our eyebrows are pulled together. These facial expressions lead to our mouth taking a smaller, tighter shape.

When we're happy, we raise our cheeks and the corners of our lips up, which both widen our mouth. When we're excited, we tend to open our eyes and mouth wide, the way we do when we are surprised. Both of these facial expressions make our mouths wider and therefore probably led to larger measurements during your experiment!



Review Questions & Bonus Exploration

- 1. Besides smiling, how else can our faces communicate the way we feel?
- 2. What other facial expressions can you think of that change the shape of your mouth?