



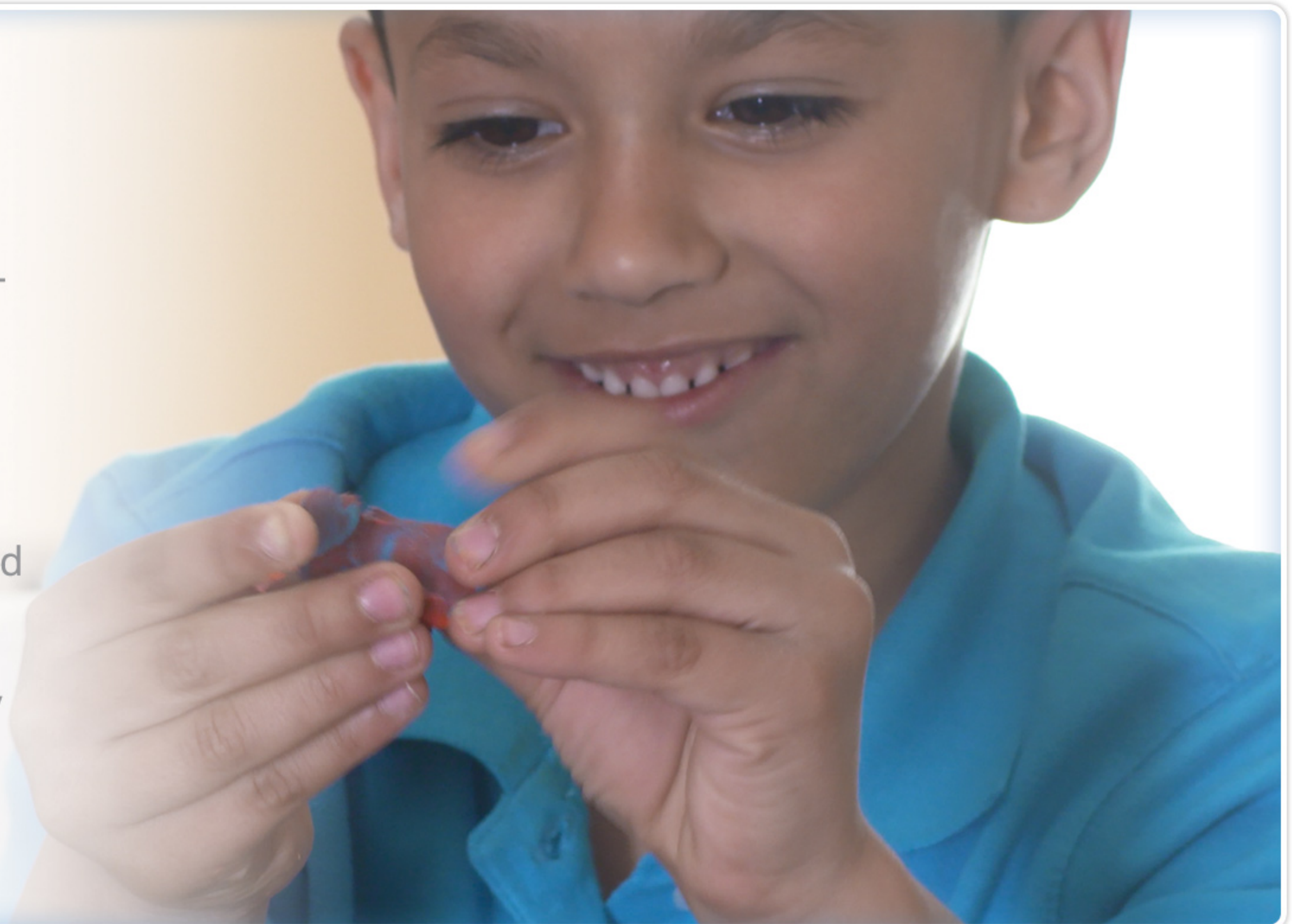
TEACHING TOOLS AND ACTIVITIES

COLOR MIXING



Critical Thinking and Problem Solving

Critical thinking and problem solving skills – the ability to understand cause and effect, figure out how things work, and solve problems – are essential for eventual success in the classroom and workplace[7]. One way to encourage these skills is by having kids experiment with color mixing. Color mixing can help practice critical thinking skills like exploring cause and effect through observation of how colors blend together and engaging in problem solving by testing different ways to achieve a certain color. This activity can also introduce kids to early math concepts such as how proportions combine to produce a whole[8].



WHAT YOU'LL NEED

**PLAY-DOH COM-
POUND – PRIMARY
COLORS (RED,
YELLOW, AND
BLUE)**



**FLAT WORK
SURFACE**

WHAT TO DO



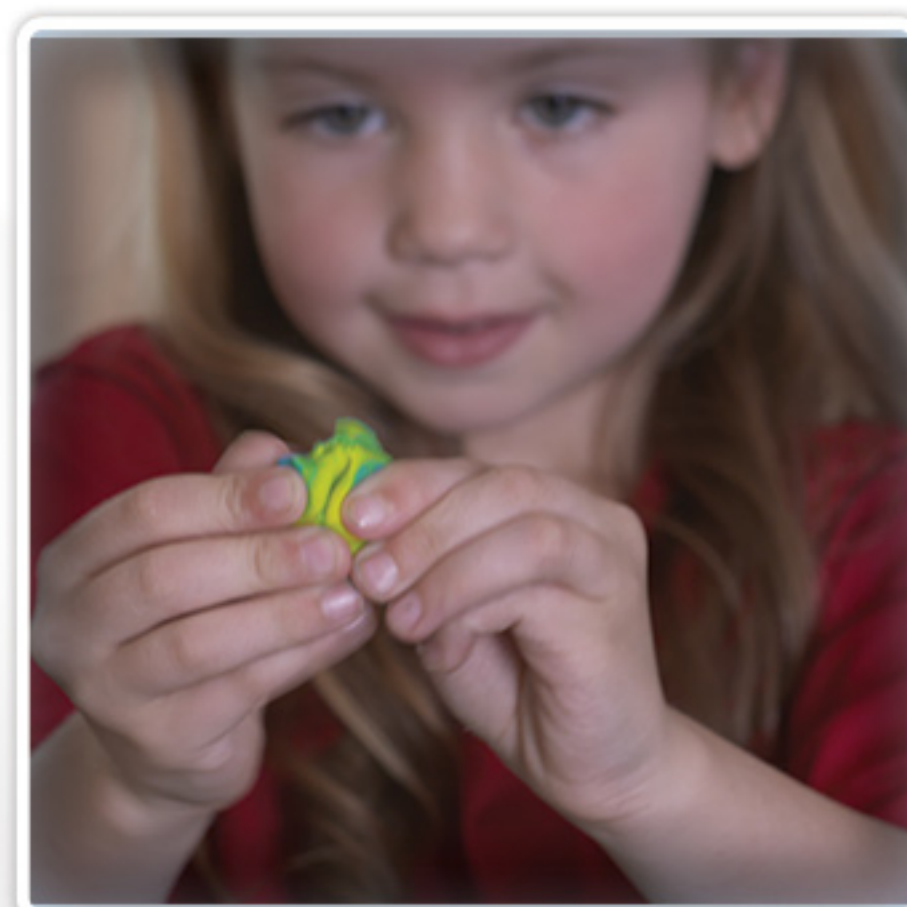
STEP 1

Take out 2 (or more) Play-Doh colors from the cans and pinch off small pieces of each.



STEP 2

Using their fingers, kids combine the colors until they fully mix them to make a new color.



STEP 3

Encourage them to experiment! Explore changes in shade by adding more of one of the colors they just used, or try new combinations of colors.

FUN TIPS

Being a play partner instead of an instructor helps encourage critical thinking skills and can make the play experience more fun for both you and your child. Promote exploration, abstract thinking, and begin to understand cause and effect by wondering out loud with your child.

Try prompting them with questions like:

- What do you think will happen?
- Is there any red left?
- What new color did you make?
- If we keep making the Play-Doh piece thinner and thinner, would it break?
- Is there anything in this room that's the same color as the one you made?
- How many pieces did you use to make a color?



TEACHING TOOLS AND ACTIVITIES

POTENTIAL BENEFITS OF THIS ACTIVITY

"With your participation and incorporating the "Fun Tips," this activity can give kids opportunities to explore a variety of concepts and work on valuable skills, including:

Critical Thinking and Problem Solving

- Making predictions
- Observing changes
- An understanding of cause & effect
- Comparing and contrasting

Fine Motor Skills

- Helps strengthen and develop the tiny muscles in the fingers
- Can help them later manipulate writing utensils

Integrated Use of the Senses

- Sight, touch, and smell
- Can help guide cognitive exploration

Basic Math Concepts

- Experimenting with different portions of Play-Doh compound can promote mathematical thinking about proportions and how when combined make a whole.

References

- [7] A Gopnik. 2012. Scientific Thinking in Young Children: Theoretical Advances, Empirical Research, and Policy Implications. *Science*, 227, 1623-1627.
- [8] J Sarama, D H Clements. 2009. Building Blocks and Cognitive Building Blocks: Playing to Know the World Mathematically. *American Journal of Play*, Winter, 314-337.