

STEM

starts now

Crayon Forms

Recommended Age: 53-60 Months

STEM concepts: Science (physical science), Technology (simple tools), Engineering(Engineering), Math (patterns and classification)

Materials: a bunch of broken crayons(preferred) or a box of crayons(any size), ovenproof, nonstick or silicone candy-making or baking molds; silicone ice cube trays or silicone muffin cups, nonstick-spray blow dryer, cardstock, toothpick, the book *The Day the Crayons Quit.* by Drew Daywalt

What to do: Start by placing crayons on the cardstock. Use the blow dryer to demonstrate that crayons melt. CAREFUL: This will make them hot. Use a toothpick to swirl the melted crayon. Now take the tray you chose and broken crayons. Remove any papers from the crayons. Spray the tray with non-stick spray. Place pieces in the tray and place the tray in the oven at 250 degrees for 20 minutes. Make sure to save some crayons (new or old) to compare after. Once the crayons have cooled remove them from mold.

Language and Communication: During the blow dryer experiment, ask your child, "What changes are you seeing?" When the crayon melts talk about how this is a reversible change. Tell your child that means a crayon starts as liquid wax and its hardened to become a crayon. Before molding new crayons ask your child to count how many crayons are in the mold. After the crayon molds cool ask,"How many crayons do you have now?" After the crayon molds are cool ask your child, "Why the crayons changed shape?" "How are the crayons the same and different?"

Expand the Activity: Add literacy to this lesson by reading the book *The Day the Crayons Quit.* by Drew Daywalt. This also adds a purpose. Focus on the blue crayon that is just too small. Talk about how we can solve the problem and make "new" crayons.

