

Scientific Investigation: Mixing Color

Overview: Introducing scientific investigation to many students can be a difficult task, so by allowing the students to do hands on activities helps put some of these abstract vocabulary terms into real life examples. Mixing colors to see what happens is a basic way to allow students to independently plan and conduct investigations. This activity focuses on the student being able to come up with a hypothesis and then conduct the investigation to see the result.

Procedure:

1. Teacher will provide *Scientific Investigation Instructions* (handout).
2. Student will follow the instructions to be able to complete the planning and logic portion of the ASOL.
3. Teacher will provide the Scientific Investigation: Lab.
4. Student will fill out the chart in order to show understanding of the scientific reasoning and logic of this specific investigation. Options for filling out the chart:
 - a. Student writes in chart independently.
 - b. Student dictates to a scribe.
 - c. Student can cut and paste pictures provided into the chart.
5. Student will gather the materials based off of the checklist.
6. Teacher will provide the *Mixing Colors! Record Sheet*. The students will formulate hypotheses based on the testable questions of mixing colors. The student will not fill out the result section at this time. See below for options for differentiation.
7. The student will conduct the investigations by mixing the colors in correlation with the instructions.
8. The student will record the result color for each investigation on the *Mixing Colors! Record Sheet*.

ASOL Covered:

5S-SI2: The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
d) hypotheses are formed from testable questions.

Materials Needed: *Mixing Colors Instructions* (handout), 4 spoons, 4 bowls or plates, yellow paint, white paint, red paint, blue paint, *Mixing Colors! Recording Sheet* (handout), *Scientific Investigation: Lab* with option of pasting in definitions (handout), pencil/bingo marker (writing tool for hypothesis and results), may need: scissors, glue (option for cut and paste scientific investigation chart)

Instructional Setting: The instruction setting could be in a resource setting, general education setting, or self-contained.

Community Connections and/or Peer Interaction: This lesson would be an opportunity to include students in the general education setting or to provide specialized instruction in a small group setting.

Functional Activity/Routine:

Some skills that are incorporated into this activity/routine:

1. Being able to use this skill in art to make various colors.
2. Using the *Scientific Investigation Lab chart*, the student can have a routine when conducting various experiments.
3. Student is learning to follow directions and complete a checklist.
4. Student is learning to plan and gather materials for a desired activity.
5. Student is working on skills that promote independence.

Strategies to Collect Evidence:

- Take pictures or videos of student conducting the investigation
- Use attached lab and handouts

Specific Options for Differentiating this Activity:

- A switch operated pour cup can be used for students to pour the colors together for mixing. A blender or mixer can be attached to a power link and then the student can mix the colors using a switch.
- A communication board can be made with color choice for students to make predictions.



Scientific Investigation: Mixing Color

Instructions

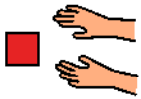


1. Fill out your Scientific Investigation page for Mixing Colors.



2. Get your materials Here is a checklist:

	4 spoons 		white paint
	4 bowls or plates 		red paint
	yellow paint 		blue paint



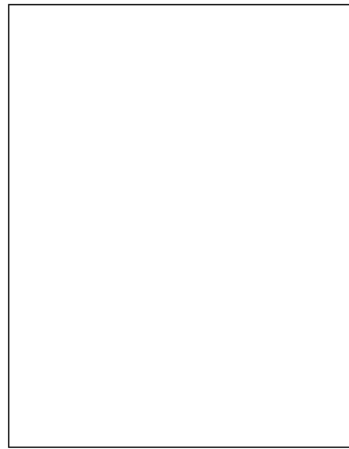
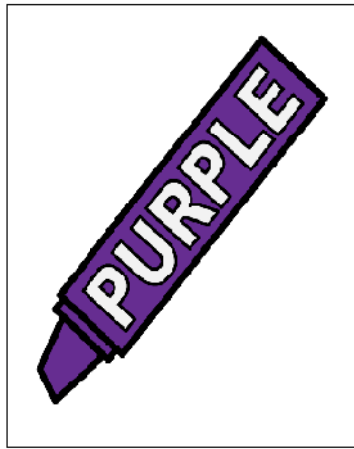
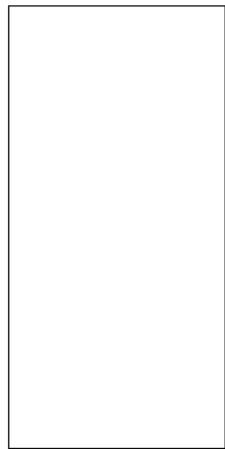
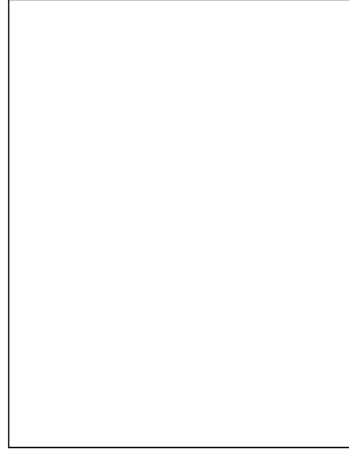
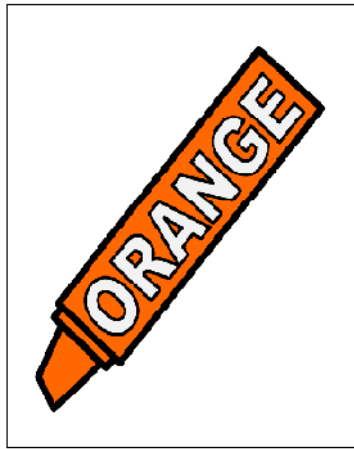
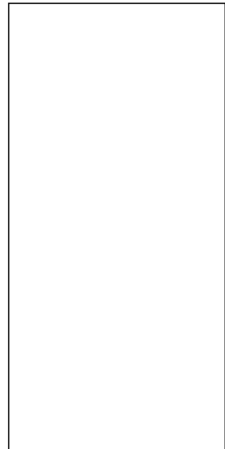
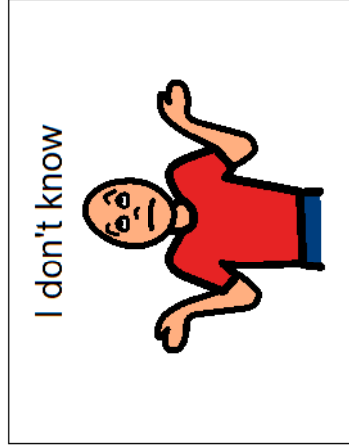
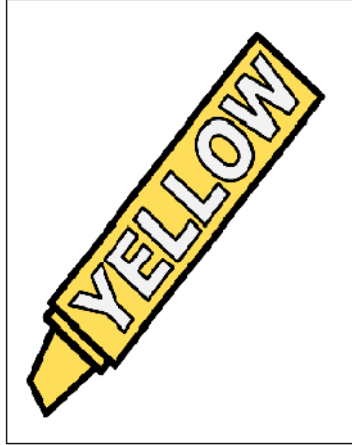
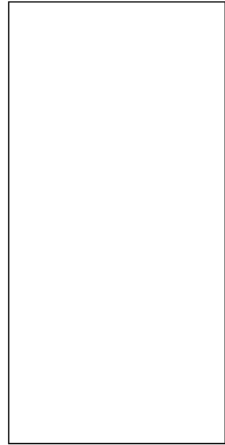
Get your Recording Sheet and fill out the hypothesis.

3. Mix yellow paint and blue paint. Write the results.

4. Mix white paint and red paint. Write the results.

5. mix red paint and blue paint. Write the results.

6. Mix yellow and red. Write the results.



These are options that are found on the Mixing Colors Results Page.

This is an option for students who may not be able to write their answers.

Having the Go Talk as an options allows for the student to verbalize the answers.



Scientific Investigation: Mixing Colors

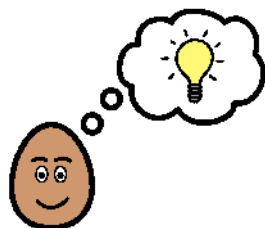
Lab Chart

question



Blank space for writing the question.

hypothesis



Blank space for writing the hypothesis.

materials



Blank space for listing materials.

experiment

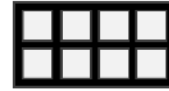


Blank space for describing the experiment.

results



Blank space for recording results.



Cut

and

paste

the definitions

into

the

chart.

What two colors make a new color?



2



I think mixing colors makes new colors.



I don't think mixing colors makes new colors.



4 bowls or plates (for mixing)



4 spoons



red paint



blue paint



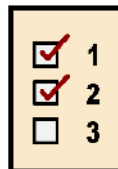
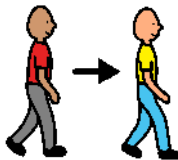
yellow paint



white paint



Follow the directions.



Mix the colors.



Were colors made? What colors? Write it down.



mix



colors



Mixing Colors!

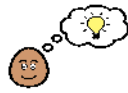
Recording Sheet 1
created by Lorna M. Bell Frizzelle



mix



Hypothesis:
What color?



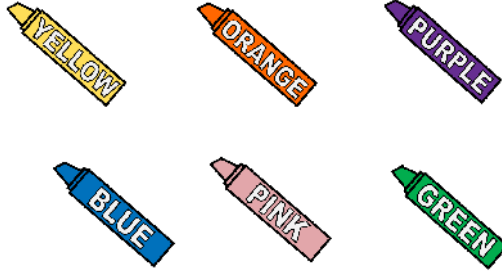
Result:
Color



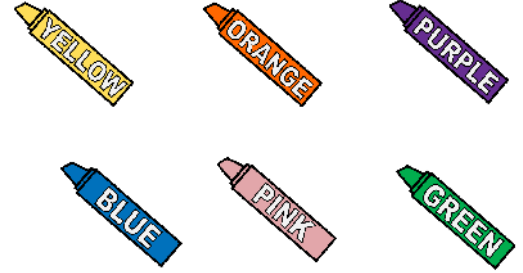
blue and yellow



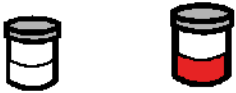
What color DO YOU THINK
it will make?



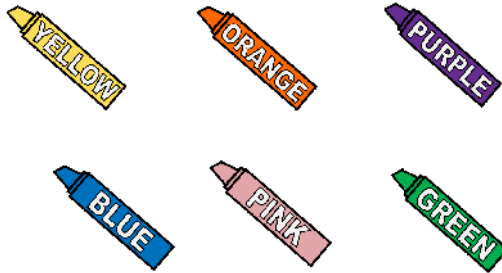
What color DID they make?



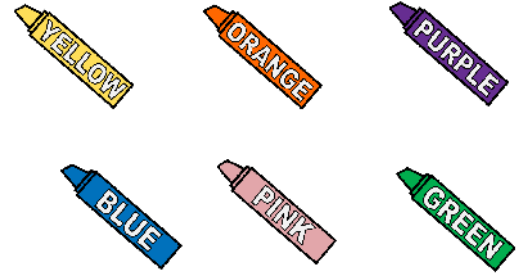
white and red



What color DO YOU THINK
it will make?



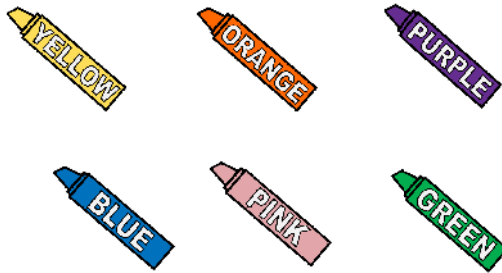
What color DID they make?



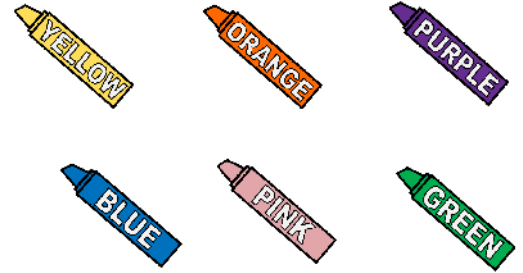
red and blue



What color DO YOU THINK
it will make?



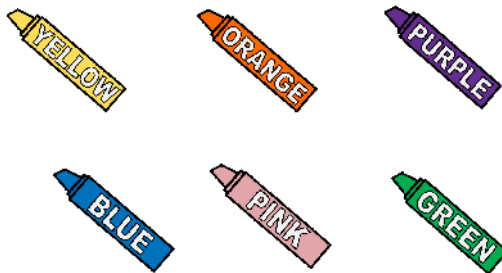
What color DID they make?



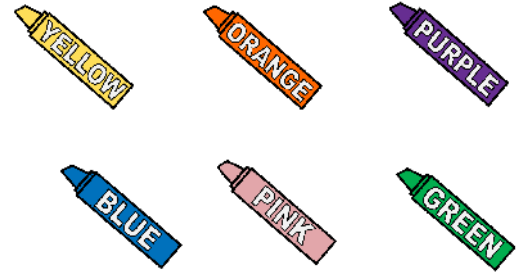
yellow and red



What color DO YOU THINK
it will make?



What color DID they make?





mix

colors

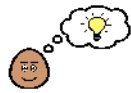


Mixing Colors!

Recording Sheet 2
created by Lorna M. Bell Frizzelle



mix



Hypothesis:
What color?



Result:
Color

blue and yellow



What color DO YOU THINK
it will make?



What color DID they make?



white and red



What color DO YOU THINK
it will make?



What color DID they make?



red and blue



What color DO YOU THINK
it will make?



What color DID they make?



yellow and red

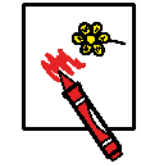
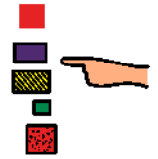
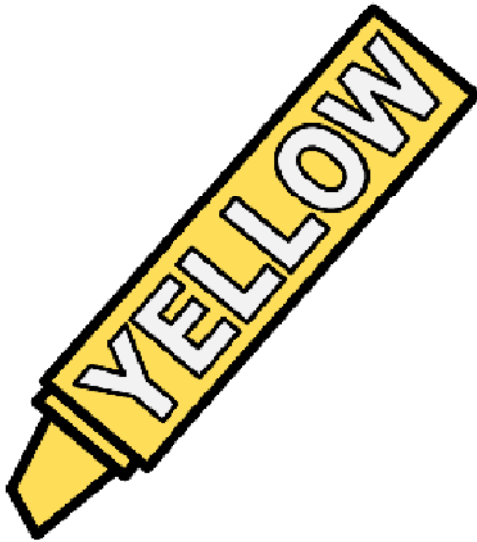
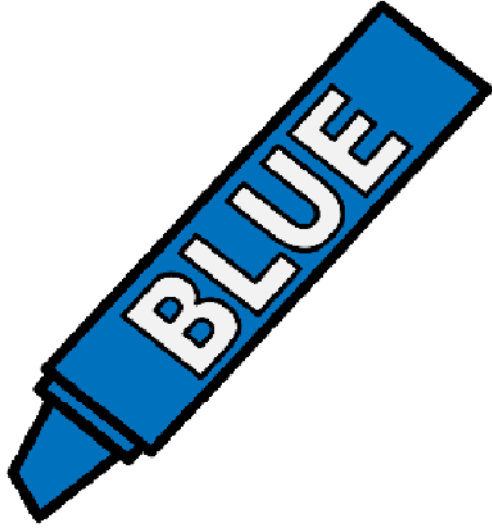


What color DO YOU THINK
it will make?



What color DID they make?





Color cards for providing choices.