

Elements to Compounds: The Color Wheel



Science & Visual Art

Grade 8

Science Common Core Grade 8 Standards:

4.8.1. a. Provide evidence to explain how compounds are produced. (No electron transfer. a. Describe how elements form compounds and molecules.)

Visual Art Standard 3.8.1.b

Select and use tools, materials, processes, and techniques safely to solve specific visual problems.
3.8.2. b. Apply elements of art and principles of design to communicate specific ideas in visual compositions.

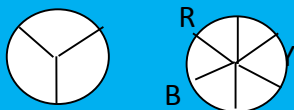


CONNECTED OBJECTIVES

Students create a color wheel using water color paints. They will use the primary colors to represent elements and they will make secondary colors by mixing the primary colors to represent compounds. Elements are combined to make compounds.

MATERIALS & RESOURCES

- Watercolors (only red, yellow, blue)
- Lg plastic containers of water
- Paper plates; with 6 sections drawn like a pizza. (Start with 3rds then draw a line through each 3rd.)



KEY CONTENT VOCABULARY

- Elements
- Atoms
- Compounds

KEY ARTS VOCABULARY

- Color wheel
- Primary colors
- Secondary colors

A S S E S S M E N T

Rubric: projects will include:

- 3 primary colors across from each other on the wheel;
- The correct secondary color in between the primary colors on the wheel. (ex. Red and blue becomes purple; blue and yellow becomes green; red and yellow become green);
- A journal reflection which states how the primary colors are like elements because they are pure substances that cannot be made. Secondary colors are like compounds because they are formed from 2 or more elements chemical combined.
- Identification of which colors on their plate would be like an element (pure substance) and which would be a compound by placing an "E" or "C" in each color.

Reflection: In your journal explain how primary colors are like elements and secondary colors are like compounds.



L E S S O N S T E P S

Review Science Vocabulary.

- Atoms make up elements and elements chemically combine to make compounds.
- An element is a pure substance. (For example, iron is a substance consisting only of iron molecules.)
- Compounds are made of 2 or more elements that have been chemically combined. (Ex. Water H₂O is hydrogen and oxygen.)

Introduce the color wheel and primary colors.

- Show the students a picture of a color wheel with primary and secondary colors and have them discuss with a partner the different colors they see.
- Ask students if they remember the 3 primary colors. Ask them to tell what colors result when two primary colors are combined. (Red and yellow make orange/Blue and yellow make green/Blue and red make purple.

Instructions for mixing and working with watercolors:

- Never mix colors on the water color tray; mix them on an extra paper plate.
- Rinse the brush before dipping into another color.
- Model this for the students.
- Use **only** primary colors.

Create Color Wheel.

- Each student takes 2 plates. (Note – use inexpensive plates with no wax finish.)
- Have the students draw 6 sections on the plate like they were cutting a pizza. Start by drawing 3rds then put a line between each 3rd, dividing it into 2 parts.
- Students will paint only the 3 primary colors red, yellow, blue; leaving a space between each color
- Students can now mix their secondary colors to fill in remaining 3 spaces on plate.

Reflection: 10 minutes before end of class have students clean up and answer reflection question.

EXTENSIONS AND OPTIONS: Sources and Resources

Use white paper instead of paper plates

G E T S M A R T T H R O U G H T H E A R T S

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