artsNOW
Integrated learning solutions

UNIT: STARS & PLANETS
COSMIC COLORS–CRAFTING THE SOLAR SYSTEM THROUGH ART
(Lesson 4 of 5)
Grade Band: 4
Content Focus: Visual Arts & Science



LEARNING DESCRIPTION

In this visual arts lesson, students will use oil pastels to create a vibrant representation of the solar system, focusing on the unique physical attributes of each planet. Through a discussion on planetary characteristics, students will learn to apply elements of art, such as value for lightness and darkness, line and shape for planetary outlines and orbits, and texture to mimic surfaces like Venus's smoothness or Jupiter's gas swirls.

LEARNING TARGETS

Essential Questions	"I Can" Statements
How do the physical characteristics of stars differ from those of planets, and what methods can we use to observe and understand these differences? How can I use elements of art to create a depiction of planets in our solar system?	I can create a model of the physical attributes of planets in our solar system using the elements of art. I can use texture, line, shape, and color to depict the composition of stars and planets.

GEORGIA STANDARDS

Curriculum Standards	Arts Standards

S4E1: Obtain, evaluate, and communicate information to compare and contrast the physical attributes of stars and planets.	VA4.CR.2 Create works of art based on selected themes. VA4.CR.3 Understand and apply media, techniques, processes, and concepts of two dimensional art. a. Apply drawing and painting techniques with a variety of media (e.g. pencil, crayon, pastel, charcoal, tempera, watercolor, acrylic).

KEY VOCABULARY

Content Vocabulary	Arts Vocabulary
• Planet - Large natural objects that orbit around a star • (Composition) Gaseous - A planet composed of mostly gasses • (Composition) Rocky - A planet composed of mostly rocks • Relative size - How the size of one object compares to another • Satellite - Any object that orbits another object • Star - A massive, luminous sphere held together by its own gravity • Telescope - A tool used to observe far away objects	• Blending technique - Mixing two colors or shades of oil pastels by layering them • Rubbing - Placing a piece of paper over something that has texture and rubbing a drawing utensil lightly over the paper to reveal the texture underneath • Color - An element of art with three properties: 1) Hue: the name of the color, e.g. red, yellow, etc.; 2) Intensity: the purity and strength of the color (brightness or dullness); 3) Value: the lightness or darkness of the color (shades and tints) • Value - This describes the lightness or darkness of a color. Value is needed to express volume. • Texture - The surface quality, or "feel" of an object, such as roughness, smoothness, or softness. Actual texture can be felt while simulated textures are implied by the way the artist renders areas of the picture. • Shape - A flat, enclosed line that is always two-dimensional and can be either geometric or organic • Line - A continuous mark made on some surface by a moving point. It may be two dimensional, like a pencil mark on a paper or it may be three dimensional (wire) or implied (the edge of a shape or form) often it is an outline,

	contour or silhouette. ● Composition - How an artist uses the the elements to create a work of art ● Proportion - The size relationships between different parts of an artwork. It determines how each element relates to the others in terms of size, scale, and placement. ● Perspective - Representing objects and spaces in a way that mimics how we perceive them in the real world

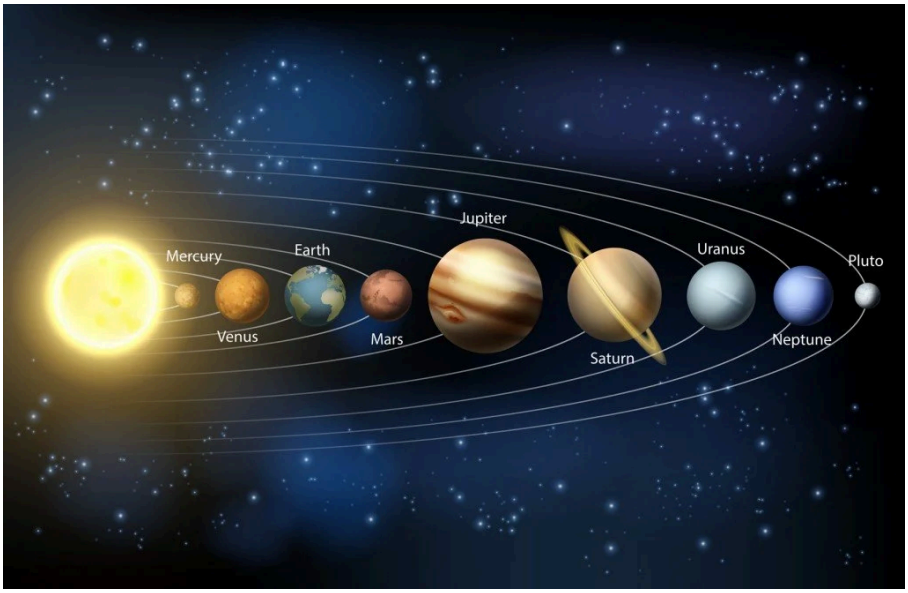
MATERIALS

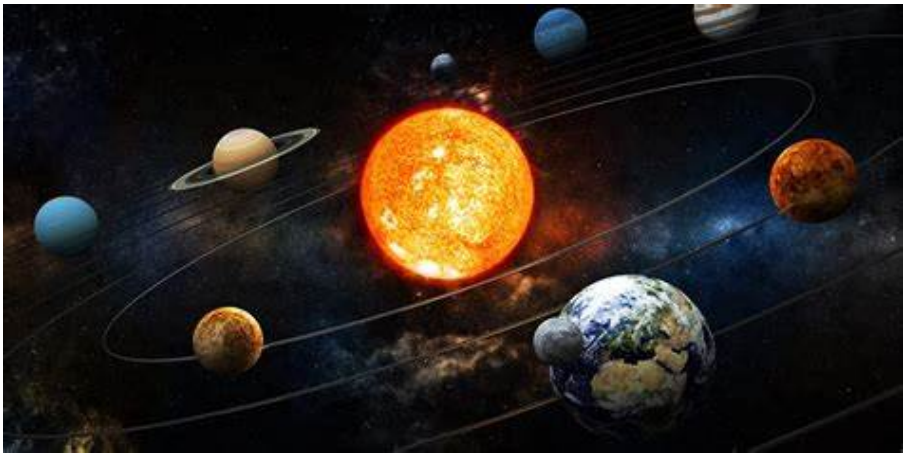
- Black construction paper
- Neon oil pastels
- Rough surfaces for texture rubbings
- Blacklight
- Alternate materials: White construction paper and regular oil pastels
- VA - Lesson 3 Rubric
- Elements of Art handout
- Oil pastel blending techniques video
- Digital images of art:
  - David A. Hardy
  - Chelsey Bonestell art

INSTRUCTIONAL DESIGN

Opening/Activating Strategy

- Group students in small groups of three to four. Give each group an element of art (line, shape, color, value, texture, space, and form).
- Discuss the definitions of each element of art using the Elements of Art poster.
- Show students the images below. Have students share how they see their group's element of art in the images.
  - Discuss how each planet is more than one color and/or shade.
  - Discuss how each planet looks different and how the order of the planets is depicted.





Work Session

- Discuss different ways the planets' order can be depicted. Refer to the pictures from the opening activity.
- Discuss how space in art is depicted. This is creating the illusion that some things are closer than others.
    - Discuss how each image is shown from a different perspective. How space is represented will depend on the perspective students choose.
    - Another resource to use for examples of perspective is from David A. Hardy.
- Discuss how/why not all of the planets are the same size and color. Proportion is one of the principles of design in art; talk to students about how this is shown in the images of the planets (relative size).
- Discuss the different compositions of planets. Ask students how this can be represented using texture. Students can represent gaseous planets with a smooth texture and blending using oil pastels and rocky planets by doing a texture rubbing on a rough surface.
- Model for students how to blend their colors. This is a great time to discuss how value is demonstrated in art. You can use this video to demonstrate how to combine light values and darker values to create the illusion of form.
- Refer back to initial images from activator. Ask students to observe how the space on the paper is used. Remind them to use the whole space on their paper when creating their artwork. Remind students to consider how they will also represent the size of the planets on their paper (proportion).

- Have students sketch their design of the solar system first and then begin coloring/shading/creating texture rubbings of the planets with oil pastels.
- After students have completed their artwork, have students sign their work and display it for future use.
- *If using neon oil pastels, after all models have been displayed, allow students to use black lights to observe other students' models/artwork.*

Closing/Reflection

- Compare and contrast the models.
- Discuss how blending (and texture rubbings) allowed for the models to be more accurate than in other depictions of planets.
- In groups, have students identify how they used the elements of art.

ASSESSMENTS

Formative

- Teachers will assess student learning throughout the lesson by observing students':
  - Ability to identify the elements of art in images of planets
  - Ability to describe the attributes of planets

Summative

Use rubric to assess student work: VA - Lesson 3 Rubric.

DIFFERENTIATION

Accelerated: Advanced students can be asked to include items such as the asteroid belt in their models.

Remedial: Allow remedial students to see a different type of model to assist them with ordering the planets, or students can choose one planet to model.

ADDITIONAL RESOURCES

- Planet 9: Have We Discovered A New Planet In The Solar System? » Science ABC
- https://media.gettyimages.com/photos/solar-system-picture-id182792016
- https://www.youtube.com/watch?v=CNZfgOnfo0I&ab_channel=SurbhipriyaArtNCraft

CREDITS

U.S. Department of Education- STEM + the Art of Integrated Learning
Ideas contributed by: SAIL Grant Teacher Leaders

**This integrated lesson provides differentiated ideas and activities for educators that are aligned to a sampling of standards. Standards referenced at the time of publishing may differ based on each state's adoption of new standards.*

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