

Core Skills Analysis

Art

- Learned about color mixing and blending techniques while painting the pentagons with watercolor paints.
- Explored geometric shapes and spatial reasoning when folding and gluing the pentagons to create a dodecahedron.
- Expressed creativity and imagination through the design and creation of the candle holder.
- Developed fine motor skills and attention to detail while measuring and scoring lines on the pentagons.

English

- Practiced descriptive writing by detailing the process of creating the dodecahedron candle holder.
- Explored vocabulary related to geometry and art during the activity.
- Enhanced communication skills through explaining the steps involved in the project to others.
- Stimulated storytelling abilities by imagining the significance of the five-point star created by the candlelight.

History

- Explored historical uses of candles as a source of light and decoration.
- Studied the cultural significance of geometric shapes, like the dodecahedron, in different civilizations.
- Learned about ancient methods of paper folding and origami techniques.
- Investigated the role of craftsmanship and creativity in historical art and design.

Math

- Applied principles of geometry to measure and locate the center point of each edge on the pentagons.
- Calculated angles and lines while folding and connecting the pentagons to form the dodecahedron.
- Practiced spatial recognition and visualization of 3D shapes during the construction.
- Enhanced problem-solving skills by figuring out the folding and gluing process.

Science

- Explored the properties and behavior of watercolor paints when used in a wet-on-wet technique.
- Studied the nature of light and reflection as it shines through the paper sides of the dodecahedron.
- Examined the concept of symmetry and patterns in the design of the candle holder.
- Learned about the properties of materials like wool and paper in the construction of the project.

Social Studies

- Explored cultural traditions related to candle lighting and decoration.

- Studied the symbolism of stars in different cultures and historical contexts.
- Learned about traditional crafts involving paper folding and candle making in various societies.
- Discussed the importance of creative expression and art in different social settings.

Tips

To further enhance the learning experience from this activity, encourage the student to experiment with different color combinations while painting the pentagons to understand color theory better. They can also research historical candle-making techniques to deepen their understanding of the cultural significance of candles. Additionally, exploring other geometric shapes and attempting more complex origami projects can help expand their spatial reasoning skills. Finally, encouraging the student to write a reflective journal entry about their experience creating the dodecahedron candle holder can improve their writing and critical thinking abilities.

Book Recommendations

- [Origami Paper 500 sheets Chiyogami Patterns 6" \(15 cm\): Tuttle Origami Paper: High-Quality Double-Sided Origami Sheets Printed with 12 Different Designs \(Instructions for 6 Projects Included\)](#) by Unknown: This book provides a wide variety of colorful origami paper with intricate patterns to inspire creativity and exploration of paper folding techniques.
- [Candle-making for Kids: Step-by-Step Candle Making Preschool Crafts for Kids Ages 4-8 & Beginners](#) by Anna Victoria: A beginner-friendly guide to candle making tailored for kids, offering step-by-step instructions and fun projects to engage young learners in a hands-on craft activity.
- [Color & Light: A Guide for the Realist Painter \(James Gurney Art\)](#) by James Gurney: Exploring the principles of color theory and light in art, this book is a rich resource for understanding how to work with color and light in painting, deepening artistic skills.