



Lesson Plan Quick Look

Title of Lesson: Make a Barrilete!

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Content Area(s): Visual Arts, Social Studies, Mathematics

Grade/Age level: all ages

Duration: 1-2 class periods

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Content Area(s): Visual Arts, Social Studies, Mathematics, Science

Grade Level/Age: all ages

Duration: 1-2 class periods

Materials Needed/Cost: 3 thin skewers, dowels, or sticks of equal length, tissue paper of various colors, glue or tape, string, scissors, ruler, pencil, paper

Handouts:

Standard Addressed:

[Visual Arts](#): VA:CN11.1

[Mathematics](#): Geometry 4- CCSS.MATH.CONTENT.4.G.A.1,
CCSS.MATH.CONTENT.7.G.A.2

[Social Studies](#): History K-4 Benchmark I-C-World

Depth of Knowledge/Bloom's Taxonomy: apply, create, evaluate

Background: The Guatemalan *Festival de Barriletes Gigantes* is celebrated each year on November 1st and 2nd in the towns of Santiago Sacatepéquez and Sumpango, Guatemala. Barriletes gigantes, or giant kites, soar high above open fields and cemeteries in this colorful observance that celebrates the memory of deceased family and friends, honors Mayan traditions, and addresses contemporary social issues. These elaborate handcrafted kites (some of which reach up to 65 feet across) carry messages from the living to their ancestors and act as beacons to guide the spirits of lost loved ones back to earth for the one day a year they can rejoin their families. The kites are made months in advance by teams of young *barrileteros* (kite makers); the designs of their kites are kept secret until the festival. The kites are made out of bamboo stalks,

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glue made from a yucca flour mixture, hemp, and tissue paper and take several people to get them into the air (several of the larger kites never even leave the ground).

Skill(s): spatial reasoning, precise measuring, planning

Essential Question(s):

1. Did your barrilete fly? If not, why didn't it fly? What changes can you make to your barrilete to make it fly?
2. What design did you create for your barrilete? Which shapes did you use? How did you put them together?
3. Why do you think the people who celebrate El Festival de Barriletes Gigantes tie messages to their kites? How did you feel sending your message up into the sky with your barrilete.

Objectives: Students will...

- Learn about the Festival de Barriletes Gigantes
- Design and make their own barriletes
- Apply geometric knowledge and skills to their barrilete making

Academic Vocabulary/Word Wall: barriletes, barriletero, hexagon, vertices

[NHCC Glossary](#)

Brain Drain or Warm Up Activity: Ask students to take five minutes to write a message to attach to their barriletes. The message can be about the students' hopes and dreams for the future, or, it can be addressed to a specific family member, friend, or pet who/that has passed away.

Basic Lesson Description and Procedure:

1. Design your barrilete: use a ruler to draw a hexagon on a piece of paper the size you want your barrilete to be (consider the lengths of your skewers/dowels/sticks). Sketch a geometric design for your kite. Use as many different shapes and sizes as you'd like.
2. Build your frame: using your sketch as a guide, place your dowels so that they line up with the vertices of the hexagon. Wrap a piece of string tightly around the middle (make sure the dowels stay in place) and use a drop of glue (or tape) to secure the string in place. Tie another piece of string around the end of one of your dowels and turn your kite clockwise, wrapping the string around the end of each dowel as you go until you end back where you started. Use a drop of glue (or tape) at the end of each dowel to keep the string in place.

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3. Make your design: place your barrilete on a piece of tissue paper and trace around your barrilete's frame; this is the base of your kite (when cutting your base, leave a two inch border around your barrilete). Following your original design, cut shapes out of different colored tissue paper and glue it to your tissue paper base.
4. Put it all together: place your frame in the middle of your decorated base and glue (or tape) along the dowels to keep the base in place. Fold the two inch border down around the string frame and glue (or tape) it down. Add fringe around the edges and tie your message to your barrilete.
5. Add the string: tie one end of a piece of string to any point of your barrilete and then tie the other end to a point next to it creating a loop. Repeat this step on the opposite side of the barrilete with a piece of string of equal length. Tie a piece of string to the center of your barrilete where all of the dowels come together. Gather the center string and the loops on either side together in the middle of your barrilete (this should look like the strings on a parachute), tie all of the strings together with the string you will use to fly your barrilete (you can wrap the remaining string around your pencil or a tongue depressor).
6. Fly your barrilete: take your barrilete out for a test flight! How is it flying? Try adjusting the length of your strings. Do you notice any difference?

Assessment/Observation Activity: Written/oral response: Write a short paragraph or have a conversation with a teacher or peer reflecting on your barrilete. What math skills did you have to use to make your barrilete? What design did you choose for your barrilete and why? How did sending your message into the sky with your barrilete make you feel? What did it make you think about?

Lesson Conclusion/Potential Practice at Home: Students can take their barriletes home and fly them with family and friends. They can experiment by changing the length of the strings, adding a tail, and flying their barriletes in different conditions.

Accommodations & Modifications: For added strength, glue a sheet of plastic the same size and shape as the paper base (from a bag, old shower curtain, plastic picnic table cloth etc.) to the barrilete. Alternately, use a heavier paper for the base (this paper can be decorated with markers, colored pencil, crayons etc).

Culturally Responsive Instruction and Modifications: Although celebrated at the same time of year, the Festival de Barriletes Gigantes is not Guatemalan Halloween. The festival is a celebration of culture and a time to remember and honor lost loved ones. Be mindful of your students' beliefs surrounding death and grief and adjust the lesson plan appropriately.

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Relevance to families and communities: Ask students to think about their own families and communities. Do they ever think about their own ancestors? If so, what do they think about them? How did they learn about them? Do they have any traditions to honor them? If not, what do they do to remember lost loved ones/pets? How do they feel thinking about loved ones/pets that have passed away?

Cross-Curricular Connections: Art, World History, Mathematics, Science

Additional Resources:

1. [Flights of Fancy](#)
2. [Guatemala's Amazing Kite Festival](#)
3. [How to Make a Tissue Paper Kite](#)
4. [¿Cómo se hace un Barrilete Gigante?](#)

Extension:

Mathematics: Geometry CCSS.MATH.CONTENT.6.G.A.1, CCSS.MATH.CONTENT.7.G.B.6

- Ask students to find the measurements of their kites (area, perimeter, angle measurements).
- Use kite flying to illustrate Newton's first law of motion
 - [NASA Kite Launch and Flight](#)
 - [NASA Newton's First Law As Applied to a Kite](#)

Feedback: [Take this survey to share your feedback on this lesson plan.](#)

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