



Math Candy

Crystal Nielsen

Grade 1

Subject Math

Topic Geometric Shapes

Descriptive Sentence

Candy, candy, candy mmmmmmm yummy! Create a math candy mobile of two dimensional and three dimensional geometric shaped candies. Explore making candy triangles, circles, squares, rectangles, cubes, cones, cylinders and patterns using delicious coloured crayons, paints and papers. Candy construction is so sweet, so tantalizing.

Curricular Outcome/Expectations

Please see the lesson plan preview for the expectations/outcomes for your province.

Introduction activities/research

Candy is the visual source for this unit. Create geometric candy shaped nametags for students. I have designed two for you. One is a lollipop, a circle with a skinny rectangle at the end. The second is a wrapped candy, a circle with two triangles, one on each end. Discuss geometric shapes in two and three dimensions. Bring some candies to class and explore their shapes. Discover colors, shapes, lines and patterns used in the wrapper designs. Play with folding, tearing, cutting and rolling paper. This activity achieves discoveries with cylinders, cones, cubes, prisms, spheres and spirals.

Materials

White cartridge paper 18"x22", a blanket size piece of paper for candy quilt extension, crayons in yummy colours, scissors, glue, coloured construction paper, clothespins, Bristol board cut into 4"x11" rectangles, water-base paint, paint brushes, geometric shaped sponges for stamping, muffin tin for paint holder, paint center protection drop cloth, old wipe cloths, newspapers, paper hole punch, pipe cleaners in assorted colors, embellishments optional: foils, tissue, buttons, beads, ribbons, fabrics, candy wrappers etc., CD player, music with candy themes.

Space Requirements

This unit is designed to be "desk friendly". The paint centre can be four desks pushed together in the classroom.

Complete Description of Unit Activities



Lesson 1

Getting Ready

- Geometric shapes influence our environments. Discuss favourite foods. Describe a favourite food and ask students to guess: "It arrives hot 'n' juicy in a square box, inside it is a circle sliced into sections. On the sections are assorted geometric shaped toppings."
- Discuss what other foods have geometric shapes. What shapes are the cheeses from Canada, Holland? What shape is a hamburger?
- Some languages are written with geometric shapes; the Ojibway language is scripted with circles and triangles.
- Buildings are replicated from geometric shapes. What shape is a teepee, a pyramid, an igloo? What geometric shapes are used to create these buildings?
- Where does candy come from? Think about how we could become candy designers. Discuss shapes, wrappers and patterns.
- Ask students to draw their favourite candies in geometric shapes on the board. Explore the colours, shapes and patterns designed on candy wrappers. Tantalize your student's imaginations with geometric candy construction. They are the designers of the candy world!

Develop

Please take a moment to review the "Candy Shapes" Slides

- On the chalkboard illustrate how a circle, triangle and square can change with a flip, a turn, a stretch. Notice how ovals, rectangles and diamonds appear. Next, write the words "MATH CANDY". Draw a square around the "M", a triangle around the "A". Together, finish the words with a geometric shape drawn around each letter. This activity prepares candy imaginations for their collages.

Application

MAKE A CANDY COLLAGE

Please take a moment to review the "2 & 3-D Shapes" Slides

- Ask each student to write "MATH CANDY" on their sheet of cartridge paper, at their desks. Use big letters, the size of their hand with a dinosaur toe space between.
- Demonstrate how to make cones, spirals, curls, folds, spheres and cylinders. Ask the students to design two dimensional geometric shaped candies using crayons. Using construction paper, design, cut and paste three dimensional geometric shaped candies.



- Colour and create interesting patterns for the letters of math candy. Fill and spill over the page with big, bold yummy candies; rectangle suckers with triangle spiraled licorice weaving through the candy collage. Play, play, play. Don't forget the candy music!

Closure

- Have children share their candy collages with the class by showing and talking about them. Clothespin nametags to the collages.

Extensions

- The Candy Quilt is a visual journal, designed to be a blanket of two dimensional and three dimensional geometric shaped candies. Precut two dimensional coloured paper geometric shapes. Encourage the students to play with these shapes and design a candy, then glue it to the quilt.

Lesson 2

Getting Ready

- Set up the paint centre to accommodate 4-6 students. Have Bristol board rectangles cut and ready.
- Discuss the five senses and how they are used in candy design and wrapper design. Explore taste, touch, sound, smell and sight.
- What is your favourite candy? What is it that you like best about it?

Develop

- Review the candy collage; the creations and discoveries made. Discuss the properties of a pattern. How do you make a pattern with shape, colour, line and design?

Application

- Inform the students of your protocol for the paint and sponge centre activity.

MOBILE HANGERS

**Please take a moment to review
the "Mobile Hanger" Slides**

**Please take a moment to review
the "Creating Patterns" Slides**



- Ask the students to write their name in big letters on one side of their Bristol board rectangle. Following the same process as before, when making the Candy Collage, have the students draw a geometric shape around each letter of their name. Using crayons the students can then design two dimensional candy shapes of different colours and patterns. On the reverse, have the students create, cut and paste three dimensional candy shapes. At the paint centre, students receive half a sheet of white cartridge paper and put their name on the back. With the brushes, sponges and yummy coloured paint, encourage them to explore and create a patterned candy wrapper. Remind them that candy wrappers tantalize the viewer to the treat inside.

Closure

- Observe and discuss the eye pleasing, tummy teasing candy wrapper designs and mobile hangers. Clothespin nametags, wrappers, hangers and collages together.

Extensions

- The Candy Quilt is continued with students creating three dimensional geometric shaped candies. These are also glued to the blanket. This "hands on" visual journal places emphasis on reviewing the geometric two dimensional and three dimensional shapes, construction, design and manipulation.

Lesson 3

Getting Ready

- At their desks, students have all the components of the "candy package": name tags, collages, wrappers, mobile hangers, scissors and glue. Ask the students to punch a hole in their name tags, then put three holes in the hanger, one at the top, two at the bottom to hang the candies. The three holes will form a triangle. Candy music, please!

Develop

- Review and discuss the previous activities. Share discoveries and observations. Explore more of the two dimensional and three dimensional concepts with a balloon demonstration. A "flat" balloon, with no air is a two dimensional object. A "fat" balloon, with air is a three dimensional object. (You could compare this to the cartoon coyote. He is as "flat as a pancake" when he is run over by a big truck or a rock falls on him. Then he pops up "fat and furry".)
- Discuss mobiles: their qualities, assembly, how to join with links. Demonstrate with your fingers and coloured pipe cleaners how to shape circles, squares and triangles.
- Decide how to assemble mobiles.



Application

MOBILE ASSEMBLY

Please take a moment to review the "Mobile Assembly" Slides

- Review the shape of cylinders, cones, spirals and spheres. With scissors and candy wrappers, cut and create two dimensional and three dimensional geometric shaped candies. Wrappers can be cut, rolled, folded and glued. Ask the students to create at least two pieces of "flat" and two pieces of "fat" candy for the mobile.
- Demonstrate how to link candy piece to holes in the bottom of mobile hanger. Punch holes in top and bottom of candies.
- Ask the children to plan in their heads how they want the candy mobile to look with geometric shaped links and candies and then assemble. Attach name tag to candy mobile. A link in the hole at the top and extra embellishments finish the assembly process.

Closure

- Observation, discussion and presentation of the yummy "math candy mobiles" is done with the class. An art gallery of "MATH CANDY" is so delicious!

FINISHINGS

To "sew up" the candy quilt, glue any embellishments, left over wrapper scraps etc. onto the candy blanket. Students can attach their collages to quilt as well. Stand back and assimilate the geometric shapes, patterns, designs and colours. Children can create a story with words and pictures about their very own candy store and give an oral presentation.

With parent volunteers, have a candy making afternoon!