

## Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM Unit Plan Template

**Unit Title:** Math: 2D Shapes      **Number of Lessons:** 4      **Time (in weeks):** 2  
**Name:** Melissa Green      **Subject(s):** Math      **Grade(s):** Kindergarten

### Rationale

This unit is important as it introduces students to 2D shapes and teaches them to identify and describe shapes; their corners and sides.

### Overview:

This unit offers a review of shapes and lessons on corners and sides with sorting activities and other worksheets. Students will create art with various shapes and be able to share how many of each shape they used in their art. This unit will be accompanied by learning centres.

### CORE COMPETENCIES

Communication	Thinking	Personal & Social
<ul style="list-style-type: none"> <li>• <i>Communicating</i> Students will communicate with peers and teachers through sharing with the group and individually. Students will communicate with one another through learning centres.</li> <li>• <i>Collaborating</i> Students will collaborate together to create shapes with their bodies and also during learning centres.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Creative Thinking</i> Students will be encouraged to be created when creating their image with the shapes.</li> <li>• <i>Critical and Reflective Thinking</i> Students will be invited to analyze shapes and determine the shape, corners, and sides associated with the same. Students will reflect on their created work in the art piece.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Personal Awareness and Responsibility</i> Students will be expected to be aware of, and regulate, their behaviour during class discussions and during work periods. As this is Kindergarten, this will continue to be modeled and reviewed through the unit and indeed, through the school year.</li> </ul>

### BIG IDEAS

(multiple subject areas for integrated unit)

#### Math

Objects have attributes that can be described, measured, and compared.

### LEARNING STANDARDS

Curricular Competencies	Content
CC1: Use reasoning to explore and make connections. CC6: Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving. CC11: Use mathematical vocabulary and language to contribute to mathematical discussions.	C8: Single attributes of 2D shapes and 3D objects.

### Prerequisite Concepts and Skills:

- Students are familiar with the math centre expectations
- Students can cut and glue independently

### Teacher Preparation Required:

Lesson #	Teacher Preparation Required (See Unit Plan Sample)
Lesson 1	<ul style="list-style-type: none"> <li>• Book</li> <li>• Worksheet</li> <li>• Posters</li> <li>• Learning Centres</li> </ul>
Lesson 2	<ul style="list-style-type: none"> <li>• Whiteboard and pens</li> <li>• Worksheet</li> <li>• Learning centres</li> </ul>
Lesson 3	<ul style="list-style-type: none"> <li>• Whiteboard and pens</li> <li>• Worksheet</li> <li>• Learning centres</li> </ul>
Lesson 4	<ul style="list-style-type: none"> <li>• Camera</li> <li>• Cut out shapes</li> <li>• Paper</li> <li>• Learning centres</li> </ul>

### Cross-Curricular Connections:

N/A

### Aboriginal Connections/ First Peoples Principles of Learning:

N/A

### Overview of Lessons:

#### Lesson 1

<b>Name &amp; Time (Minutes Allotted):</b>	Shape Introduction (35 minutes)
<b>Learning Standards: Curricular Competencies</b>	CC1, CC6
<b>Learning Standards: Content</b>	C8
<b>Instructional Objectives</b>	TSWBAT complete the colour by the code worksheet TSWBAT contribute to the shape brainstorming!
<b>Assessment:</b>	Formative <i>for</i> learning <b>What:</b> Colour by the Code worksheet <b>How:</b> Teacher will review for accuracy  Formative <i>as</i> learning <b>What:</b> Shape brainstorm <b>How:</b> Students will learn from one another as they contribute to the shape brainstorm list.
<b>Teaching Strategies:</b>	Story, images, brainstorm, worksheet, learning centres
<b>Materials:</b>	Book, worksheet, posters
<b>Lesson Activities:</b>	
<b>Introduction/Hook:</b>	<b>Read:</b> Friendshape by Amy Krouse Rosenthal
<b>Body:</b>	<b>Brainstorm:</b> shapes! What shapes can we come up with? Add the shape posters as students name them. <b>Color by the Code:</b> Students complete the colour by the code worksheet.
<b>Closure:</b>	<b>Students</b> transition to math learning centres. Options: Roll and cover a shape, find the shape, shape sorting, alphabet creating with shape blocks

## Lesson 2

<b>Name &amp; Time (Minutes Allotted):</b>	Corners (35 minutes)
<b>Learning Standards: Curricular Competencies</b>	CC1, CC6, CC11
<b>Learning Standards: Content</b>	C8
<b>Instructional Objectives</b>	TSWBAT draw a shape on their whiteboard as indicated by the teacher and write/share the number of corners on the shape. TSWBAT complete the “How many corners?” worksheet.
<b>Assessment:</b>	Formative <i>for</i> learning <b>What:</b> Whiteboard work <b>How:</b> Teacher will be able to see student understanding of shapes and corners.  Summative <i>of</i> learning <b>What:</b> “How many corners” worksheet <b>How:</b> Teacher will review for student understanding
<b>Teaching Strategies:</b>	Whiteboard work, worksheet, review, math learning centres
<b>Materials:</b>	Whiteboard and pens, worksheet, learning centres.
<b>Lesson Activities:</b>	
<b>Introduction/Hook:</b>	<b>Review</b> posters and count the corners for each shape
<b>Body:</b>	<b>Draw</b> shape on individual white boards and write the number of sides <b>Worksheet:</b> How Many Corners?
<b>Closure:</b>	<b>Students</b> transition to math learning centres. Options: Roll and cover a shape, find the shape, shape sorting, alphabet creating with shape blocks, how many corners.

## Lesson 3

<b>Name &amp; Time (Minutes Allotted):</b>	Sides (35 minutes)
<b>Learning Standards: Curricular Competencies</b>	CC1, CC6, CC11
<b>Learning Standards: Content</b>	C8
<b>Instructional Objectives</b>	TSWBAT draw a shape on their whiteboard as indicated by the teacher and write/share the number of sides on the shape. TSWBAT complete the “How many sides?” worksheet.
<b>Assessment:</b>	Formative <i>for</i> learning <b>What:</b> Whiteboard work <b>How:</b> Teacher will be able to see student understanding of shapes and sides.  Summative <i>of</i> learning <b>What:</b> “How many sides” worksheet <b>How:</b> Teacher will review for student understanding
<b>Teaching Strategies:</b>	Whiteboard work, worksheet, review, math learning centres
<b>Materials:</b>	Whiteboard and pens, worksheet, learning centres.
<b>Lesson Activities:</b>	
<b>Introduction/Hook:</b>	<b>Review</b> posters and count the sides for each shape
<b>Body:</b>	<b>Draw</b> shape on individual white boards and write the number of sides <b>Worksheet</b> “How many sides?”
<b>Closure:</b>	<b>Students</b> transition to math learning centres. Options: Roll and cover a shape, find the shape, shape sorting, alphabet creating with shape blocks, how many corners, how many sides

## Lesson 4

<b>Name &amp; Time (Minutes Allotted):</b>	Shape Creations (35 minutes)
<b>Learning Standards: Curricular Competencies</b>	CC1, CC6, CC11
<b>Learning Standards: Content</b>	C8
<b>Instructional Objectives</b>	TSWBAT support one another in creating shapes and counting corners during body shape making. TSWBAT create an image (animal, robot, etc) using cutout shapes and indicate how many of each shapes they used.
<b>Assessment:</b>	Formative <i>as</i> learning <b>What:</b> Making shapes with our bodies and counting the corners in the shape <b>How:</b> Students will support and learn from and with one another.  Summative <i>of</i> learning <b>What:</b> Shape creations <b>How:</b> Teacher will review what the student has made and make see the accuracy of their completed sentence to go with their creation.
<b>Teaching Strategies:</b>	Using shapes to make art, using bodies to make shapes, learning centers.
<b>Materials:</b>	Camera, cut out shapes, paper, learning centres
<b>Lesson Activities:</b>	
<b>Introduction/Hook:</b>	<b>Make</b> shapes with bodies! Class works together to make different shapes, count the corners and sides together. Take photos to be displayed in the classroom.
<b>Body:</b>	<b>Create</b> an image with shapes (animal, robot, etc) using cutout shapes and indicate how many of each shape they used. <b>Challenge</b> count the sides and corners in their creation.
<b>Closure:</b>	<b>Students</b> transition to math learning centres. Options: Roll and cover a shape, find the shape, shape sorting, alphabet creating with shape blocks, how many corners, how many sides

### Resources:

Kindergarten Math by "Moffatt Girls"

### Extensions to Unit:

This mini-unit will be extended into a 3D shapes mini-unit.

### Reflections and Revisions

N/A