THOMPSON RIVERS UNIVERSITY | Education & Social Work

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

Unit Title: Exploring 2D Shapes & 3D Objects | Number of Lessons: 8 | Time (in weeks): 2+

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Rationale

This unit plan is important because it gives students a foundation for geometry and spatial awareness. This unit plan supports visual mathematical literacy, problem-solving, and beginners' mathematical reasoning. Students will be engaged in hands-on, visual, and real-world applications to promote understanding over simply memorizing.

Overview:

Students will explore 2D shapes and 3D objects through hands-on experience, sorting, building/sculpting, and designing. They will begin to develop their spatial reasoning throughout this unit plan. Real-world and relatable shapes will be used so that students can experiment with their attributes (corners, faces, and edges) as well as compare them by their similarities and differences. Students will also get an introduction to simple graphs and Venn diagrams later in the unit plan.

CORE COMPETENCIES

Communication	Thinking	Personal & Social
Collaborating **Working Collectively** • Students combine their efforts with those of others to effectively accomplish learning and tasks. As members of a group, they appreciate interdependence and cooperation, commit to needed roles and responsibilities, and are conscientious about contributing. They also negotiate respectfully and follow through on plans, strategies, and actions as they share resources, time, and spaces for collaborative projects **Supporting Group Interactions** • Students engage with others in ways that build and sustain trusting relationships and contribute to collective approaches. They value diverse perspectives and integrate the ideas of others with their own to tackle tasks, issues, and problems. Students seek to distribute leadership,	***Critical thinking and reflective thinking*** **Reflecting and assessing** • Students apply critical, metacognitive, and reflective thinking in given situations, and relate this thinking to other experiences, using this process to identify ways to improve or adapt their approach to learning. They reflect on and assess their experiences, thinking, learning processes, work, and progress in relation to their purposes. Students give, receive, and act on feedback and set goals individually and collaboratively. They determine the extent to which they have met their goals and can set new ones ***Creative thinking*** **Generating and incubating** • Students may generate creative ideas through free play, engagement with other's ideas, or consideration of a problem	***Personal Awareness and Responsibly*** **Self-Advocating** • Students who are personally aware and responsible have a sense of self-worth and a growing confidence in a variety of situations. They value themselves, their ideas, and their accomplishments. They are able to express their needs and seek help when needed, find purpose and motivation, act on decisions, and advocate for themselves **Self-Regulating** • Students who are personally aware and responsible take ownership of their choices and actions. They set goals, monitor progress, and understand their emotions, using that understanding to regulate actions and reactions. They are aware that learning involves patience and time. They can persevere in difficult

listen actively, take turns in discussions, acknowledge contributions, and identify missing voices. They regulate the group's interactions together, mutually encouraging one another, creating space for marginalized voices, and applying constructive strategies to navigate through misunderstandings, struggles, and conflict	or constraint, and/or because of their interests and passions. New ideas and inspirations can spontaneously arise from the unconscious mind, but students can also develop strategies to facilitate the generation of ideas – learning a lot about something, engaging in a period of reflection, providing time for incubation, and doing relaxing or automatic activities to quiet their conscious mind. The capacity for creative thinking expands as individuals increase their range of ideas and concepts to recombine them into new ideas. The ideas available as raw material for creative thinking depend on previous experiences and learning, as well as students' cultural legacies	situations, and to understand how their actions affect themselves and others ***Positive Personal and Cultural Identity*** **Recognizing personal values and choices** • Students define who they are by what they value. They understand how what they value has been influenced by their life experiences. They identify how their values help to shape their choices, in all contexts of their lives

BIG IDEAS

(multiple subject areas for integrated unit)

Subject Name: Mathematics 1	Subject Name: Applied Design, Skills, & Technology 1	Subject Name: Science 1
• Objects and shapes have attributes that can be described, measured, and compared • Concrete graphs help us to compare and interpret data and show one-to-one correspondence (lesson 8).	• Designs grow out of natural curiosity • Skills can be developed through play	• Matter is useful because of its properties

LEARNING STANDARDS

Curricular Competencies	Content

Mathematics 1: Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving • Visualize to explore mathematical concepts Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests	**Mathematics 1:** • Meaning of equality and inequality • Comparison of 2D shapes and 3D objects • Concrete graphs, using one-to-one correspondence (lesson 8)
Applied Design, Skills, & Technology 1: Ideating • Generate ideas from their experiences and interests Applied Skills • Develop their skills and add new ones through play and collaborative work	**Applied Design, Skills, & Technology 1:** • *Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies K-3 in combination with grade-level content from other areas of learning in cross-curricular activities to develop foundational mindsets and skills in design thinking and making.*
Science 1: Applying & Innovating • Transfer and apply learning to new situations Communicating • Communicate observations and ideas using oral or written language, drawing, or role-play	**Science 1:** • Specific properties of materials allow us to use them in different ways

Prerequisite Concepts and Skills:

Students will need to know:

- Simple positional words such as above, below, beside, and next to
- Recognize simple patterns and grouping of like objects
- Be able to count, sort, and classify objects by colour, size, or type
- Be able to use basic mathematical terminology such as big, small, same, different, more, and less

Teacher Preparation Required:

Lesson #	Teacher Preparation Required
Lesson 1	• Set up Canva presentation • Copy scavenger hunt sheets • Copy coloured Shape Matching sheet at home in colour (one per student) • Copy “Color by Shape” colouring pages at home in colour (2 different types & do ~10 each) • Print (or show on the presentation) pictures of 2D shapes & 3D objects • Print & hide 2D shapes around the classroom for the scavenger hunt • Make checklist for cube creation
Lesson 2	• Set up Canva presentation • Copy 2D shapes chart at home in colour (one per student) • Print out pencil character shapes on white and coloured paper • Print ice cream pages • Set up magnifier

	• Have pattern blocks ready to go for each table group • Bring book “Shapes and Oranges” by King Medina • Checklist for Pencil character project and independent practice with pattern blocks
Lesson 3	• Set up Canva presentation • Get construction paper in various colours • Cut some construction paper into smaller pieces to put on each table so students can share colours – leave some full for the background of their house projects • Find a house picture made of different shapes for hook (add to presentation slides) • Bring “The Shape of Things” book by Dayle Ann Dodds • Get pattern blocks into baskets for each table along with the construction paper in different colours (smaller pieces so they can share) • Make checklist for composing & decomposing shapes
Lesson 4	• Set up Canva presentation • Set up magnifier • Get students to bring their supply boxes to their table spot • Print worksheets, cut, & staple • Print shape cards for demonstration • Print shape cards for each student/table group • Have extra pencil crayons and crayons ready if needed • Make up table baskets with shape cards & sorting mats (if available) • Hand out shape booklets when needed
Lesson 5	• Set up Canva presentation for sharing real world pictures on screen • Set up magnifier • Collect examples of 3D objects (ball [sphere], ice cream cone, Rubix cube, birthday hat, math set box [rectangular prism], picture of Egyptian pyramids, etc.) • Collect manipulatives (gather objects from the teacher’s cupboard, nature, and other areas) • Collect a cloth bag that is not transparent (for hook) • Add 3D objects to the cloth bag for the hook (small shapes only as they will guess only the shape of the object & not what it is – buy from Amazon or borrow from teacher if possible) • Print 3D shapes mini booklet (one per student so ½ because pages are doubled to cut) • Cut down & staple 3D Shapes mini booklet (one per student) • Print Shape Matching graphic organizer (one per student) • Print 3D Shape Chart template (one per student) • Gather extra crayons and pencil crayons in case they are needed • Print shape cards (one set of six shape cards for each student)
Lesson 6	• Gather examples of 3D objects (ball [sphere], ice cream cone, Rubix cube, birthday hat, math set box [rectangular prism], picture of Egyptian pyramids, etc.) • Print Lesson 6: Matching 3D Objects & Real-World Examples Worksheet (one per student) • Make Canva presentation • Make observation checklist for the Touch & Feel Box station • Hand out 3D shapes mini booklet (already printed) • Hand out 3D shapes charts (from previous lesson for student reference) • Pencils • Erasers • Crayons • Bring box or bag for station • Collect & bring 3D shapes to pull from the box or bag • Print Count and Graph worksheet (one per student)
Lesson 7	• Make Canva presentation • Set up projector • Set up magnifier • Buy or make Play-Doh • Buy Toothpicks • Buy mini marshmallows • Bring 3D shapes for instruction • Get students to retrieve their supply bins & put them on their table spots • Find pictures of playgrounds

	• Make checklist for activities (marshmallow/toothpick & Play-Doh shapes) • Hand out 3D shapes mini booklet (already printed) • Hand out 3D shapes charts (from previous lesson for student reference)
Lesson 8	• Set up laptop • Set up projector • Set up magnifier • Make Canva presentation • Make Venn diagram • Bring the book "The Math Adventurers" by Sital Gorasia Chapman & Susanna Rumiz • Make worksheet • Hand out mini booklet • Get students to retrieve their supply bins and put them on their table spot • Find items to sort for hook (paper plate, Rubix cube, birthday hat, book, dice, coffee cup, orange, etc.)

Cross-Curricular Connections:

Arts Education:
- Creating 2D shapes and 3D objects using paper cut-outs, wooden shapes, paper shapes, natural items, and more

Science:
- Shapes and objects will be explored in structures and nature

English Language Arts:
- Shape riddles and descriptive writing is incorporated throughout the lessons and their activities
- Mathematical language will be used throughout the lessons and activities, so students are exposed to the terminology

Physical Health Education:
- Shape scavenger hunt (lesson 1)
- Movement brain breaks where students will make their bodies into shapes (i.e. Make yourself into a triangle!")

Aboriginal Connections/ First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectiveness, on reciprocal relationships, and a sense of place): Mathematics is all around us in the environment and in nature. The digital world is 2D for the most part, but we live in a 3D world where objects have substance, shape, and depth, so it is important for students to become familiar with this field of mathematics to better understand the world around them.

Learning involves patience and time: Mathematics for most people requires time and practice to learn. Often it takes a lot of patience as well because people often consider math to be "hard". With time and perseverance, mathematics can be interesting and allow people to further understand the world that they live in. Learning and exploring 2D shapes and 3D objects, students will get a strong knowledge base of which to build upon in their future mathematics journey.

Universal Design for Learning (UDL)

Multiple Means of Representation
- Visuals will be used through books, videos, pictures, and tangible items
- Real-life examples will be used where possible (natural items, pictures, things that are relatable to the students age and interests)
- There will be a shape scavenger hunt for an activity for engagement and movement (lesson 1)
- There will be a lot of tactile 3D shapes to explore and build

Multiple Means of Action & Expression
- Students will draw, use blocks and other manipulatives, and Playdoh to build 3D shapes
- Students will be given choice to verbally share their ideas with the class
- Students will use cut-outs, natural items, and real-world examples to explore 2D shapes & 3D objects

Multiple Means of Engagement
- Games based on movement and sharing will be used including a scavenger hunt

- Students will get a choice of materials to use for their activities when possible
- Activities and lessons will be based on real-world connections when possible, making lessons relatable

Differentiated Instructions (DI)

- Lessons will be progressive, and they will start with basics to build upon for all students
- Extra activities and other projects will be available for early finishers and those that need a challenge
- Tiered assessment strategies will be available for students that need more time and guidance
- Shapes in 2D and objects in 3D will be connected to real-world experiences, art, construction, nature, and technology so that students can relate to them for further understanding and clarification
- Visual supports will be used throughout all lessons and activities
- Modelling will be utilized for all lesson activities where needed
- Oral explanations will be used for all lessons and activities
- Hands-on tasks will be introduced, modelled, and used throughout lessons and activities when it is possible
- Sentence frames will be provided when needed (i.e. “A square has _____ sides.”)

Overview of Lessons:

Lesson 1

Name &Time (Minutes Allotted):	**Exploring Shapes in Our World – 1 hour total**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests
Learning Standards: Content	Comparison of 2D Shapes • Sorting 3D objects and 2D shapes using one attribute, and explaining the sorting rule • Comparing 2D shapes and 3D objects in the environment • Describing relative positions, using positional language (e.g., up and down, in and out)
Instructional Objectives	• Students will recognize and name 2D shapes and 3D objects in their environment • Students will be able to find shapes around the classroom • Students will be able to name simple 2D shapes and 3D objects • Students will be able to follow instructions to do a shape scavenger hunt and a shape art project • Students will be able to complete a colour by shape worksheet
Assessment:	• Participation in the shape scavenger hunt (observation) with checklist https://www.teacherspayteachers.com/Product/Scavenger-Hunts-Colors-Adjectives-2D-Shapes-3D-Shapes-Scavenger-Hunt-9820615 • Completion of Shape Matching worksheet https://www.teacherspayteachers.com/Product/2D-and-3D-Shape-Matching-Cut-and-Paste-Activity-Free-Worksheet-Set-10233181
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets and other materials will not be distributed until after the instruction when they need them • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated

	• The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Colour by shape)
Materials:	• Laptop • Projector • Canva presentation • Scavenger hunt sheets • Coloured shape matching sheets • Real-life objects • Pictures of 2D shapes & 3D objects for instruction • Colour by shape colouring pages • Checklist for cube creation • Glue sticks • Scissors • Crayons • Pencils • Erasers
Lesson Activities:	
Introduction/Hook: 10 minutes	• Show pictures of shape collages and see if students can give shape names that they see https://www.firstpalette.com/craft/many-shapes-picture.html https://ca.pinterest.com/pin/2603712282185077/ https://ca.pinterest.com/pin/26880929020812765/ • Use several pictures and ask the same questions • Explain that they will be doing a similar picture using shapes • Introduce that they will be exploring 2D shapes and 3D objects for the next few weeks in fun ways! • Today, we are going to: o Look at some real-life examples of 2D shapes & 3D objects o Scavenger Hunt for 2D shapes o Discuss what you found exploring 2D shapes in the scavenger hunt o Do a shape matching page o If there is time, you can colour a page by 2D shapes
Body: 45 min. total	**Instruction** (10 min.) • Show pictures of 2D shapes & 3D objects o Have a discussion about differences, similarities, etc. • Show real-life examples of 2D shapes & 3D objects o Have a discussion about differences, similarities, etc. **Activity 1:** **Scavenger hunt** (15 min.) o Explain how the scavenger hunt will go and the expectations o Give students a time limit plus announce when they have a few minutes left o Discuss with the students what shapes they found and how they knew what shape it was **Activity 2:** **Shape Matching Worksheet** (20 min.) • Explain that they will cut-out the real-life shapes at the bottom of the page & glue them under the shape they match with • Explain how much time they have and what supplies they will need • Explain that they need to add their name to their sheet and hand it into the hand-in bin

	• Tell students how much time they have and give them a warning when there are about 5 minutes left • If there are early finishers or if there is time, get students to do a colour by shape sheet ○ Students will colour areas by matching the shape in that area by the colour stated with that shape
Closure: 5 min.	• Ask students to clean up their area, recycle their paper bits, & put supplies away • Get students to hand in their worksheets and remind them to add their names • Students can take their cube home once it is completed & it is checked off the list as completed

Lesson 2

Name &Time (Minutes Allotted):	**2D Shape Characteristics – 1 hour**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	• Meaning of equality and inequality
Instructional Objectives	• Students will be able to describe basic 2D shapes by their sides & corners • Students will be able to use words to describe 2D shapes such as side, corners (vertices), corner, equal, not equal, flat, curved, straight) • Students will be able to recognize & name some basic shapes such as circle, square, triangle, rectangle, oval, and pentagon
Assessment:	• Completion of 2D shapes chart • Completion of Pencil art using coloured shapes
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets and other materials will not be distributed until after the instruction when they need them • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Colour by shape)
Materials:	• Laptop • Projector • Canva presentation • 2D shapes chart – print at home in colour • Pencil character shapes on white and coloured paper • Ice cream cone pages in case needed • Magnifier • Pattern blocks portions for each table group • “Shapes and Oranges” by King Medina • Checklist for Pencil character project • Cone pattern in case needed • Glue sticks • Scissors • Crayons

	• Pencils • Erasers • Longer coloured paper for backgrounds (pencil character & ice cream cones)
Lesson Activities:	
Introduction/Hook: 10 min.	Do “Mystery Shape” riddle game for a few rounds to refresh the student's memory about 2D shapes • “I have 3 sides, what am I?” • “I have 4 equal sides, what am I?” • “I have no vertices (corners), what am I?” Read “Shapes and Oranges” by King Medina • Discuss the shapes in the book as it is read • Get students to answer questions about the shapes in the book Introduce that we will be looking more at 2D shapes and their attributes • We’re going to look at 2D shapes using pattern blocks and fill in a chart of our findings for your math books • We’re going to make shape ice cream cones • We’re going to make a cute pencil character using different shapes

Body:
45 min. total
	Activity 1:
	2D Shapes Using Pattern Blocks
	Model (“I do”) - 5 min:
	• Use the magnifier to show a circle
	  ○ Show that there are no sides or vertices
	  ○ Get students to mark a “0” in those spaces for the circle on their charts
	
	Guided Practice (“We do”) - 5 min:
	• Using the magnifier, do a demonstration for a triangle on the student’s chart and count the sides and vertices together
	  ○ Get the students to fill in the numbers for that shape
	
	Independent Practice (“You do”) - 15 min:
	• Explain that they will use pattern blocks for each shape that is on their chart and fill in the chart for the sides & vertices for each shape listed
	• For each shape, ask students to note the number of sides & vertices
	  ○ Go through the sides & vertices for each shape
	• Let the students know how much time they have for this activity & give them a warning when time is close to being over
	
	Activity 2:
	Pencil Character from Shapes (20 min)
	• Explain to students that they will be making a cute pencil character out of different shapes using coloured paper
	• Model (“I do”)
	  ○ How to make the character step by step
	• Show the students the finished project so they can use it as a reference
	• Hand out the supplies and get students going!
	
	Activity 3 (if there is time):
	Ice Cream Shapes
	• Explain to students that they will be making ice cream cones but instead of just using circles, they will have other shapes to add this time
	• Get students to colour their shapes
	• Get students to cut out their shapes & arrange them on a large sheet of paper

	• Get students to add their name to their paper • Students will glue their pieces on making an ice cream cone made of different shapes
Closure: 5 min.	• It's time to clean up! • Ask students to make sure their name is on their papers • Get students to hand in their papers • Ask students to clean up their area and put supplies away

Lesson 3

Name &Time (Minutes Allotted):	**Composing and Decomposing 2D Shapes – 1 hour**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests
Learning Standards: Content	Repeating Patterns • Identifying sorting rules Comparison of 2D shapes • Sorting 2D shapes using one attribute, and explaining the sorting rule • Comparing 2D shapes in the environment • Describing relative positions, using positional language (e.g., up and down, in and out) • Replicating composite 2D shapes (e.g., putting two triangles together to make a square)
Instructional Objectives	• Students will be able to use smaller shapes to make larger ones (i.e. 4 squares together make 1 large square) • Students will be able to use smaller shapes to make different ones (i.e. 2 triangles to make a square) • Students will be familiar with shapes and their attributes
Assessment:	• Observation checklist of students making shapes with smaller shapes • Completion of the house building using shapes • Conversations with students while they work on their houses
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets and other materials will not be distributed until after the instruction when they need them • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Colour by shape)
Materials:	• Canva presentation • Projector • Laptop • Construction paper in various colours • Glue sticks • Scissor

	• Pencils • Erasers • House picture made of different shapes for hook • "The Shape of Things" book by Dayle Ann Dodds • Pattern blocks • Checklist for observation of composing & decomposing shapes
Lesson Activities:	
Introduction/Hook: 10 min.	• Read the book "The Shape of Things" by Dayle Ann Dodds • Pause and ask questions as it's read • Show a picture of a house made of various shapes • Ask students what shapes they see in the picture • Explain that they will be making their own house and scenery with shapes that they cut out from different colours
Body: 45 min. total	Model ("I do") - 5 min: • Show how smaller shapes can be combined to make larger or different shapes (i.e. 2 triangles make a square) • Do several examples Guided Practice ("We do") - 10 min: • Use pattern blocks to display and do several examples of how a picture can be developed (i.e. build a boat, an animal, etc.) Independent Practice ("You do") - 30 min: • Explain to students that they will make a house (and garden, yard, whatever they want to add) out of shapes that they will cut out • Hand out supplies & get students to retrieve their desk boxes with their supplies • Let students know how much time they have to work on their houses • Tell students to add their names to their papers • Tell students to hand in their finished projects to the hand-in bin • Let students know when there is 5 minutes left before clean-up time
Closure: 5 min.	• Time to clean up • Ask students to clean up their area, put supplies away, and recycle their paper tidbits • Students will make sure their names are on their projects • Students will hand in their projects into the hand-in bin

Lesson 4

Name &Time (Minutes Allotted):	**Sorting 2D Shapes – 1 hour**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests
Learning Standards: Content	Repeating Patterns • Identifying sorting rules Comparison of 2D Shapes • Sorting 2D shapes using one attribute, and explaining the sorting rule • Comparing 2D shapes and 3D objects in the environment • Describing relative positions, using positional language (e.g., up and down, in and out)

	• Replicating composite 2D shapes (e.g., putting two triangles together to make a square)
Instructional Objectives	• Students will be able to sort 2D shapes into different categories (i.e. sides, corners, shape) • Students will be able to explain why they sorted 2D shapes into the categories that they did • Students will be able to recognize that 2D shapes can belong to more than one group by attributes

Assessment:	• Completion of three-page workbook
	  ○ Fish for squares where students will colour in the squares
	  ○ Colour by sides where students will colour the shapes with a colour stated for the number of sides each has in a legend
	  ○ 2D/3D sort where students sill colour 2D shapes in blue & 3D objects in yellow – starts to introduce 3D objects
	• Observation of students working at their tables (staying on task)
	• Conversations with students while walking around the class during work time (i.e. Can students give an explanation as to why they sorted their shapes the way they did during activities?)

Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets & other materials will not be distributed until after the instruction when they need them • Student supply boxes will remain closed until needed • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Finish work that is not complete)
Materials:	• Canva presentation • Projector • Laptop • Magnifier • Manipulatives (i.e. pattern shapes & shape cards) • Worksheet booklets for the lesson (3 pages) • Sorting mats if available
Lesson Activities:	
Introduction/Hook: 5 min.	Hook: • Show the students shapes (~5) & ask them how we could sort them into groups • When a student gives you a suggestion, get them to explain their reasoning • Ask students how else you could sort them • Switch shapes if there is time Introduction: • Introduce that they will be using shape cards to sort 2D shapes into categories and then doing some fun examples that will go into their math books

Body:
50 min.
	Model (“I do”) - 10 min:
	• Take a group of 2D shapes and sort them
	  ○ Explain how you are sorting them as you go
	  ○ Show alternative ways to sort them
	• Use a new set of 2D shapes and sort them
	  ○ Explain how you are sorting them as you go

	○ Show alternative ways to sort them Guided Practice ("We do") - 10 min: • Students will use 2D shapes on their desks to sort them into groups • Discuss how they sorted the shapes and why • Do one question from each of the worksheets together using the magnifier Independent Practice ("You do") - 30 min: • Remind students to add their name to their workbook • Students will complete the three pages of worksheets for their math books
Closure: 5 min.	• Time to clean-up • Students will clean up their area and put away supplies • Students will hand in their workbooks in the hand-in bin

Lesson 5

Name &Time (Minutes Allotted):	**Exploring 3D Objects – 1 hour**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	Comparison 3D objects • Sorting 3D objects using one attribute, and explaining the sorting rule • Comparing 3D objects in the environment
Instructional Objectives	• Students will be able to identify & name six common 3D objects/shapes (sphere, cube, cylinder, cone, rectangular prism, & pyramid) • Students will be able to match/compare real-world examples to 3D objects (i.e. a ball is a sphere)
Assessment:	Formative (gathering real-time evidence) • Show me card response (the teacher says, "Show me a _____" or "What 3D shape do you see in this picture?" & the students hold up a 3D shape card with the 3D object to check for student's understanding • Observations of students sorting the 3D picture shapes during the independent practice while circulating • Conversations with students during independent practice explaining their reasoning of how they sorted their 3D shapes/pictures • Show me quick thumbs up/down during instruction to see where students are & if more instruction or modelling is needed Summative (big-picture understanding after the lesson) • Cut and glue matching 3D shapes with real world 3D objects (3D Shape Matching graphic organizer)
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Materials will not be distributed until after the instruction when students need them • Students that are talking out without raising their hand will be reminded to raise their hand if they want to contribute • Students that talk to their table peers will receive a warning but then will be separated if it continues • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.)

	• The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be instructed to complete anything from previous lessons 1-4 that is not finished or if it is, they can colour the cover sheet of their mini booklet or get another activity from the teacher • The teacher will photocopy and staple when necessary, anything that is needed for the lesson ahead of time (booklets & worksheets) • The teacher will have materials ready before class begins (real world 3D objects, pictures, etc.)
Materials:	• Examples of 3D objects (ball [sphere], ice cream cone, Rubix cube, birthday hat, math set box [rectangular prism], picture of Egyptian pyramids, etc.) • Manipulatives (Objects from the teacher's cupboard, nature, & other areas) • Cloth bag • 3D objects for the hook (small shapes only as they will guess only the shape of the object & not what it is – plastic 3D shapes from Amazon) • 3D shapes mini booklet (one per student; link in the resources) • 3D Shape Matching graphic organizer (one per student; link in the resources) • 3D Shape Chart template (one per student, link in the resources) • Scissors • Glue sticks • Pencils • Erasers • Crayons • Laptop • Projector • Magnifier • Canva presentation (link in the resources) • 3D shape card set for each student (link in the resources) • 3D shape building templates (link in the resources)
Lesson Activities:	
Introduction/Hook: 5 min.	Hook: "Mystery Bag" • Students will reach in (volunteers) the bag and try to guess a 3D shape without looking • Discuss how they think their guess is correct ("What are the shapes attributes that makes them think the shape is a _____?") ○ Continue until several students have gone Introduce 3D objects: • Discuss how 3D shapes have dimensions and how we can tell what they are (sides, corners, etc.) • Remind students that 2D shapes are flat and 3D objects are not flat • Tell students that they will be exploring 3D objects now by sorting & building them and they will start a little booklet exploring different 3D objects in our real world
Body:	**Activity 1:** Model ("I do") 10 min • Show and name basic 3D shapes (sphere, cube, cylinder, cone, pyramid, & rectangular prism) • Complete the 3D shapes chart for students for student reference Guided Practice ("We do") 10 min: • Show the Shape Matching worksheet & discuss the cube column ○ Ask students what real-world shapes in the picture choices are cubes

	○ Tell students what to put under the cube Independent Practice ("They do") 15 min: Shape Matching Worksheet • Explain to students that they will cut out the bottom items from the Shape Matching worksheet & paste them below the 3D shape that they think they belong with • Remind students to add their name to their paper! **Activity 2:** 3D Shapes Mini-Book – 15 min • Explain that students will be completing their 3D shapes mini booklet pages for the cylinder and cube ○ Model ("I do"): On each page there is a spot to glue on the 3D shape and a real-world example – show how to do it for the sphere ○ Guided Practice ("We do"): Ask students to complete their page for the sphere ○ Independent Practice ("You do"): Get students to complete the same steps for the cone page ○ Students can colour their title page if there is time
Closure: 5 min.	• Clean up time ○ Ask students to clean up their desks, recycle paper pieces, put their names on all their work, and hand everything into the hand-in bin ○ Get students to put supplies away & wipe the tables if needed

Lesson 6

Name &Time (Minutes Allotted):	**Describing 3D Objects**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests
Learning Standards: Content	Repeating Patterns • Identifying sorting rules Comparison of 2D Shapes • Sorting 3D objects and 2D shapes using one attribute, and explaining the sorting rule • Comparing 2D shapes and 3D objects in the environment • Describing relative positions, using positional language (e.g., up and down, in and out) • Replicating composite 2D shapes and 3D objects (e.g., putting two triangles together to make a square) Concrete graphs • Creating, describing, and comparing concrete graphs
Instructional Objectives	• Students will be able to describe some basic 3D objects by their faces, edges, and corners • Students will be able to use proper terminology to explain 3D objects • Students will be able to compare 3D objects
Assessment:	Stations: • Shape cards and real-world objects matching activity

	○ Worksheet product of students matching 3D objects with a real-world item (i.e. sphere matched with a basketball) • Touch & feel box (Can students answer the questions?) ○ Conversations with students after they pull out a 3D shape from a covered box without looking: ▪ Name the 3D shape ▪ Identify a flat surface on the 3D shape ▪ Tell how many corners the 3D shape has • Completion of the sphere page in their shapes mini booklet
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets & other materials will not be distributed until after the instruction when they need them • Student supply boxes will remain closed until needed • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Finish work that is not complete)
Materials:	• Examples of 3D objects (ball [sphere], ice cream cone, Rubix cube, birthday hat, math set box [rectangular prism], picture of Egyptian pyramids, etc.) • Lesson 6: Matching 3D Objects & Real-World Examples Worksheet • Laptop • Projector • Canva presentation • Observation checklist for the Touch & Feel Box station • 3D shapes mini booklet (already printed so just need to hand them out) • 3D shapes charts (from previous lesson for student reference) • Pencils • Erasers • Crayons • Box or bag for station • 3D shapes to pull from the box or bag • Count and Graph worksheet
Lesson Activities:	
Introduction/Hook: 5 min.	Hook • Play the video by Jack Hartmann “3D Shapes Song for Kids” https://www.youtube.com/watch?v=zPZegz690Mg&list=RDzPZegz690Mg&start_radio=1 • Ask students what they noticed in the video Introduction • Explain that they will be looking further into 3D shapes & objects for this lesson and they will be doing some fun activities with them
Body:	**Activity 1:** **Stations** Model (“I do”) - 5 min: • Explain that students will be doing two stations ○ Station 1 – Show how the Touch & Feel Box works by picking out a 3D shape and answering the questions ▪ Name the shape ▪ Identify a flat surface on the shape ▪ Count how many corners are on the shape ○ Station 2 – Worksheet of 3D objects & real-world items to match

	▪ The teacher will show how the worksheet will be done by doing 1 of the items Guided Practice ("We do") - 5 min: • Station 1 – Students will each pick a 3D object from the box and answer the questions (the teacher will be at this station for the most part as observation) • Station 2 – Students will ask any questions that they have and make sure they know what they are supposed to do on the worksheet Independent Practice ("You do") - 10 min: • Station 2 – Students will complete the worksheet of 3D objects & real-world item by matching them into their pairs by drawing a line connecting them **Activity 2:** **Count and Graph worksheet** Model ("I do") - 5 min: • Explain that we are going to try doing a graph ○ Introduce the X and Y and what they mean ○ Show how to do 1 shape (i.e. hexagons) by graphing the number of them (i.e. 4) ○ Show students to mark off the 3D objects once they are done to make it easier to keep track of Guided Practice ("We do") - 5 min: • Get the students to help graph the triangular prism ○ There are 2 triangular prisms ○ Colour in the rectangular prism column to 2 Independent Practice ("You do") - 10 min: • Get students to try the rest of the 3D objects • Remind students to add their name to their sheet • Give students a 5-minute warning before it's time to clean-up **Activity 3:** **Shapes Mini Booklet** – 10 min: • Remind students what they are doing for their sphere page • Get students to complete the sphere page
Closure: 5 min.	Clean-up time • Tell students that it is time to clean-up • Ask students to hand in their papers & booklet to the hand-in bin • Ask students to clean up their area and put the supplies away

Lesson 7

Name &Time (Minutes Allotted):	**Building 3D Objects – 1 hour**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving • Visualize to explore mathematical concepts Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests
Learning Standards: Content	Repeating Patterns • Identifying sorting rules Comparison of 2D Shapes

	• Sorting 3D objects and 2D shapes using one attribute, and explaining the sorting rule • Comparing 2D shapes and 3D objects in the environment • Describing relative positions, using positional language (e.g., up and down, in and out) • Replicating composite 2D shapes and 3D objects (e.g., putting two triangles together to make a square)
Instructional Objectives	• Students will be able to name some 3D objects that they use • Students will be able to state some attributes that some 3D objects have • Students will be able to build some 3D objects using manipulatives • Students will be able to name the 3D objects that they build
Assessment:	• Creating and building a cube, pyramid, & rectangular prism with mini marshmallows and toothpicks (checklist) • Creating and a sphere, cylinder, and cone with Playdoh (checklist) • Completion of the cone & rectangular prism pages in their shapes mini booklet
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets & other materials will not be distributed until after the instruction when they need them • Student supply boxes will remain closed until needed • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Finish work that is not complete)
Materials:	• Canva presentation • Projector • Laptop • Magnifier • Playdoh • Toothpicks • Mini marshmallows • 3D shapes for instruction • Pencils • Erasers • Picture of a playground • Checklist for activities (marshmallow/toothpick & Play-Doh shapes) • 3D mini booklet (already printed so just need to be handed out) • 3D Object Chart for student reference
Lesson Activities:	
Introduction/Hook: 5 min.	Hook: • Show a picture of a playground and its equipment • Discuss with the students what shapes they see in the picture • How do they know what shapes they are? Are the shapes 2D or 3D? Introduction: • Explain that they will be making a few different 3D shapes today out of fun stuff like marshmallows and Playdoh!
Body: 45 min. total	**Activity 1:** **Marshmallow 3D Shapes**

	Model ("I do") 10 min:
	• Talk a bit about the 3D objects that we have looked at so far
	• The teacher will show the students how to make a triangular prism out of toothpicks and mini marshmallows
	
	Guided Practice ("We do") 10 min:
	• Ask students how they think they could make an oval out of Playdoh
	• Working with the class, make an oval out of Playdoh guiding questions as you go
	
	Independent Practice ("You do") 15 min:
	• The students will make out of mini marshmallows
	  ○ Cube
	  ○ Pyramid
	  ○ Rectangular prism
	• The students will then make out of Playdoh
	  ○ Sphere
	  ○ Cylinder
	  ○ Cone
	
	Activity 2:
	Mini Booklet Pages – 15 min.
	• Ask students to fill out their booklet pages for cones & rectangular prisms
	• Students can complete (catch-up) other pages that they still need to complete
	• Once complete, students will hand-in their booklet into the hand-in bin

Closure: 5 min.	Clean-up time • Tell students that it's time to clean up • Let students know that their marshmallow structures can go in their lockers if they want to keep them or into the garbage if not • Let students know that the Play-Doh must be returned to bags/containers to be reused • Ask students to clean up their area and put away supplies • Ask students to wipe down their desks

Lesson 8

Name &Time (Minutes Allotted):	**Sorting & Comparing 2D Shapes and 3D Objects – 1 hour**
Learning Standards: Curricular Competencies	Reasoning & Analyzing • Model mathematics in contextualized experiences Understanding & Solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving • Visualize to explore mathematical concepts Communicating & Representing • Explain and justify mathematical ideas and decisions Connecting & Reflecting • Connect mathematical concepts to each other and to other areas and personal interests
Learning Standards: Content	Repeating Patterns • Identifying sorting rules Comparison of 2D Shapes • Sorting 3D objects and 2D shapes using one attribute, and explaining the sorting rule • Comparing 2D shapes and 3D objects in the environment

	• Describing relative positions, using positional language (e.g., up and down, in and out) • Replicating composite 2D shapes and 3D objects (e.g., putting two triangles together to make a square)
Instructional Objectives	• Students will be able to compare 2D shapes and 3D objects by their attributes • Students will be able to describe how shapes are alike and different • Students will be able to explain their thinking
Assessment:	• Completion of Lesson 8: 2D Shapes & 3D Objects sheet • Observation of students sorting shapes into different categories and explaining why • Venn diagram comparing 2D, 3D, & both • Completion of the pyramid page in their shapes mini booklet
Teaching Strategies:	• When students want to add to the class discussions or ask questions, they will raise their hand and wait to be called on by the teacher • Worksheets & other materials will not be distributed until after the instruction when they need them • Student supply boxes will remain closed until needed • Students that are talking without raising their hand will be reminded to raise their hand if they want to contribute • Students that continue to talk after the reminder will be separated • The teacher will use strategies to gain attention and hold it (i.e. If you can hear me touch your nose... etc.) • The teacher will use a brain break if the students need to get up and move to get rid of their energy • Early finishers will be provided with quiet activities (i.e. Finish work that is not complete)
Materials:	• Laptop • Projector • Magnifier • Canva presentation • Book “The Math Adventurers” by Sital Gorasia Chapman & Susanna Rumiz • Venn diagram • Exit ticket • Mini booklet (already printed so just need to hand it out) • Scissors • Pencils • Erasers • Crayons • Glue sticks • Items to sort for hook (paper plate, Rubix cube, birthday hat, book, dice, coffee cup, orange, etc.)
Lesson Activities:	
Introduction/Hook:	Hook – 5 min: Read “The Math Adventurers” by Sital Gorasia Chapman & Susanna Rumiz • Discuss shapes that come up in the book • Ask the students questions as reading Introduction – 5 min: Real-life Shape Families • Show students real items (paper plate, birthday hat, book, dice, coffee cup, orange, etc.) • Ask students who belongs in the flat family? • Ask students who belongs in the solid family?

	• Let students know that they will be comparing and sorting lots of shapes today

Body:	**Activity 1 – Sorting physical shapes:**
	Model ("I do") - 5 min:
	• Show students a few rounds of how to sort various shapes in 2D & 3D
	  ○ Use different ways to sort (i.e. face/no faces, corners/no corners, etc.)
	
	Guided Practice ("We do") - 5 min:
	Sort in Partners
	• Get students into pairs (elbow partners will work)
	• Hand out 2D shapes & 3D objects to each pair of students
	• Go through multiple different sorting exercises with the shapes & objects (i.e. sort triangles from non-triangles, sort shapes that are round from shapes that are not round)
	
	Independent Practice ("You do") - 10 min:
	• Explain the worksheet that has 3 areas on it & do a question that is like each one with the class, so they understand what to do (model):
	  ○ Draw a 2D shape that we have covered
	  ○ Circle the shapes that could roll
	  ○ Match the 2D shape with the 3D object
	
	Activity 2 – Venn Diagram of Shapes:
	Model ("We do") - 5 min:
	• Explain what a Venn Diagram is and how it shows similarities, differences, and shared attributes of things
	• Explain to students that they will cut off the bottom portion & then cut out the shapes/object pictures
	• With the magnifier, ask the students to help place two of the items on the Venn Diagram
	
	Independent Practice ("They do") - 10 min:
	• Explain to students that they will complete the Venn Diagram and glue the items onto the paper where they think the items should go (2D, 3D, or both)
	
	Activity 3: Mini Booklet Pages – 10 min.
	• Students will complete the last shape in their booklet for pyramids
	• Remind students that they will hand in their booklets at the end to the hand-in bin
	
	• Any early finishers can work on completing anything that they need to finish in their shapes mini booklet or another task that the teacher assigns such as a colour by shape page

Closure: 5 min.	Clean-up time • Remind students to make sure their names are on all of their papers • Get students to hand in their papers & booklets to the hand in bin • Ask students to clean up their area and put supplies away

Resources (Links include free resources that have legal permission to be used within classrooms)

Lesson 1:
Scavenger hunt: https://www.teacherspayteachers.com/Product/Scavenger-Hunts-Colors-Adjectives-2D-Shapes-3D-Shapes-Scavenger-Hunt-9820615
Shape Matching Worksheet: https://www.teacherspayteachers.com/Product/2D-and-3D-Shape-Matching-Cut-and-Paste-Activity-Free-Worksheet-Set-10233181

Pictures used in presentation for hook: https://www.firstpalette.com/craft/many-shapes-picture.html
https://ca.pinterest.com/pin/2603712282185077/
https://ca.pinterest.com/pin/26880929020812765/

Lesson 2:

Ice cream cones: https://www.teacherspayteachers.com/Product/2D-Shapes-Worksheet-Ice-Cream-Shapes-FREE-Activities-for-Kindergarten-1707561
Pencil Character: https://www.teacherspayteachers.com/Product/FREE-Pencil-Craft-2D-Shape-Kindergarten-Math-Activity-Back-to-School-Bulletin-5806120
2D Shapes Worksheet: https://www.canva.com/design/DAG47T1wyJs/fjow47OPi-c6P2nl_3r3Yw/view?utm_content=DAG47T1wyJs&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=h56b8d45587

Lesson 3:

Houses for presentation: https://www.first-school.ws/activities/shapes/general/house.htm
https://toddler-net.com/worksheets/shapes/shapes_htmls/shape-worksheet-house.html
Reference: https://www.youtube.com/watch?v=RpW3tjWUZi8

Lesson 4:

Worksheets: https://www.teacherspayteachers.com/Product/Shape-Worksheets-Geometry-Worksheets-Kindergarten-Grade-One-2D-3D-FREE-1927158
Shape cards: https://www.canva.com/design/DAG5FhAEJxY/1fM9-qCzGcdJLlNPouWi9A/view?utm_content=DAG5FhAEJxY&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=h24a8f6fd2d
Shape cards: https://www.canva.com/design/DAG5FgYKMeQ/uy2-E6zsoeXSMobS7e3D-A/view?utm_content=DAG5FgYKMeQ&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=h812ee14d19

Lesson 5:

Checklist:
https://www.canva.com/design/DAG5wqHdq6E/mgTgt4pIRCULv_HUbY0pHw/view?utm_content=DAG5wqHdq6E&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=hb070428f20
3D objects mini booklet (from my TMs shared Google drive – I did not pay for this) -
https://www.teacherspayteachers.com/Product/3D-Shape-Activity-My-3D-Shapes-Mini-Book-Common-Core-Aligned-3D-Shape-Fun-567221
3D Shapes Chart Template:
https://www.canva.com/design/DAG5GJb5Tdg/tGMqqs82dBrVBreDElFl8A/view?utm_content=DAG5GJb5Tdg&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=hc54668e40a
3D Shape Matching Graphic Organizer: https://www.teacherspayteachers.com/Product/2D-and-3D-Shape-Matching-Cut-and-Paste-Activity-Free-Worksheet-Set-10233181
Canva Presentation for pictures of real-world objects: https://www.canva.com/design/DAG52d0v3do/8V1So-7ZSVoPJxkwTZIFNw/view?utm_content=DAG52d0v3do&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=hb1b97fbb1d
3D Shape card set (Note: Change cuboid to rectangular prism): https://superstarworksheets.com/math-worksheets/3d-shapes/3d-shapes-flashcards/
Early finishers word searches (easy & more challenging): https://ca.pinterest.com/pin/632544710204579041/
https://www.teacherspayteachers.com/Product/FREE-Printable-2D-Geometry-Shapes-Word-Search-trapezoid-circle-triangle-etc-9876246
Foldable 3D shape templates: https://www.teacherspayteachers.com/FreeDownload/Free-3D-Shapes-Nets-and-Exploring-Shape-Worksheets-Activities-Crafts-8066718
Brain break if needed: https://www.youtube.com/watch?v=29DQJWGwEnY&t=18s

Lesson 6:

Matching 3D objects and real-world examples worksheet:
https://www.canva.com/design/DAG5G5mCrW4/nPbGTOkG4j_KnUyDaG5LRA/view?utm_content=DAG5G5mCrW4&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=h4bdf925194
3D Shapes Song for Kids by Jack Hartmann:
https://www.youtube.com/watch?v=zPZegz690Mg&list=RDzPZegz690Mg&start_radio=1
Graph of Shapes: https://www.teacherspayteachers.com/Product/Shape-Worksheets-Geometry-Worksheets-Kindergarten-Grade-One-2D-3D-FREE-1927158

Lesson 7:

Playground pictures: https://www.youtube.com/watch?v=6BIw9teVizg
https://www.youtube.com/watch?v=61AJylonA2M

Lesson 8:

Venn Diagram: https://www.canva.com/design/DAG5H_SCzZo/en97yIK-SwbOFH4EmlomOQ/edit?utm_content=DAG5H_SCzZo&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton
2D Shapes & 3d Objects Worksheets:
https://www.canva.com/design/DAG5Gg0677s/BHhM41Tu5EAvD0ehQ0gOfQ/view?utm_content=DAG5Gg0677s&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=hb039b9e6e0

Extensions to Unit:

- Introduce more 2D shapes & 3D objects
- Get students to build structures using shapes/blocks
- Use more Lego to build structures
- Get students to build a picture using 2D shapes
- Challenge students to build symmetrical designs with pattern blocks
- Get students to draw more 2D shapes & 3D objects themselves
- Get students to find 3D objects at home and take pictures to share with the class
- Introduce more real-world sorting such as “things that roll” & “things that stack”
- Get students to build something with only 2 kinds of 3D objects (i.e. cubes & cylinders)

Reflections and Revisions

These lessons are likely going to extend over two days because of the age of the students and the time that it will likely take them to perform the tasks & activities. These extended lessons were planned this way intentionally so that there is extra planned in case it is needed.