Math: Unit 10Building with 3-D ShapesJanuary 20-24, 2014

(2 out of a 2 Week Duration)

|  |
| --- |
|  |
| **Content Objective:** * [1.G.1](https://www.dropbox.com/s/g0r73wd1e8pshop/1.G.1%20Unwrapped%20document.docx?dl=1). Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

           [3-D Shape Attributes Chart](https://docs.google.com/file/d/0B9K16pWoLqivRTZBbE80dkxmV2s/edit?usp=sharing)* [1.G.2](https://www.dropbox.com/s/bwsrgtgzeh3kazz/1.G.2%20Unwrapped%20document.docx?dl=1). Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.  (Students do not need to learn formal names such as “right rectangular prism.”)
 |
| **WARM UP: (problem of the day, etc) 10-15 MIN.**TW guide students to complete calendar activities: (using complete sentences) day of the week, month of the year, discuss specials of the day, sing songs about the days of the week and months of the year, quick images, counting incorporating tallies and/or graphs |
| **COMPUTATIONAL FLUENCY PRACTICE/Discussions: 10-15 MIN.** Skip counting by 2s, 5s, and 10s forwards and backwards and Number of the Day – Students discuss number patterns explaining using complete sentences how problem of the day was solved.Unit 10 Review, Week 1, Days 1-5 |

|  |
| --- |
| **Materials Needed:**3-D shapesStudy guide sheets: 3 Dimensional Shapes, Relate 2-D to 3-D, Identify 3-D Shape, “Identify the 3-D Shape game”**Literature Sampling for Read Alouds (if time permits)***\*\*\*Note: All of these books are dealing with 2-D shapes.* *You could make leaps to 3-D with this literature or you could use them as a review.* * Mouse ShapesEllen Stole Walsh
	+ [Task Card](http://www.k-5mathteachingresources.com/support-files/mouseshapes1.g2.pdf) for Mouse Shapes
* When a Line Bends, a Shape Begins[Rhonda Gowler Greene](http://www.amazon.com/When-Line-Bends-Shape-Begins/dp/0618152415)
	+ [**Task Card**](http://www.k-5mathteachingresources.com/support-files/whenalinebendsashapebegins1.g2.pdf) **for When a Line Bends…**
* Grandfather Tang’s Story Ann Tompert
* The Greedy Triangle Marilyn Burns
* A Cloak For the Dreamer Aileen Friedman
* Circus Shapes Stuart J. Murphy
 |

|  |  |
| --- | --- |
|  **Anchor Chart** | **Focus: Identify attributes of 2-D shapes** |
| **Vocabulary:** * Cone, cube, cylinder, sphere, rectangular prism, cuboid, triangular prism, rectangular pyramid, triangular pyramid
* attributes (defining: & non-defining: color, size, oriental, overall size)
* Sides, angles, faces, vertex/ vertices
* Apex (The point (vertex) furthest from the base of an object.) <http://www.mathsisfun.com/definitions/images/apex-base.gif>
* two-dimensional (2-D)
* 3-D shape (a shape that has height, depth, and width)
* composite(a figure is made from two or more geometric figures)
* compose (put together)
 |  |

|  |
| --- |
| **Mathematical Practices:**MP1: Make sense and preserve**MP2:Abstract/quantitative reasoning**MP 3: Construct arguments**MP 4: Model with math** MP 5: Use appropriate tools MP 6: Attend to precision MP 7: Make use of structure MP8: Regularity/repeated reasoning |

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| **Teacher Background:** Students will use 3-D shapes to compose new 3-D shapes. For example, students can use a cone and a cylinder to create a new 3-D pencil shape.  Students should be able to compose and decompose in multiple ways. Given the example of a house, students should be able to mentally decompose and determine that a house consists of a cube and a triangular prism. Provide wooden or foam building blocks for students to compose and decompose using 3-D shapes. At the end of this unit, students should be able to describe the defining attributes of the new 3-D shapes composed **(this Friday)****Beginning (Introduction/Knowledge Building):****Tuesday-Thursday:**1. Review Anchor Chart.
2. Teacher should provide multiple hands on practice opportunities for students to manipulate shapes, compose, and decompose shapes.
3. Teacher should facilitate regular discussions where students can share their discoveries of all the ways they can compose and decompose shapes. Teacher should record and post student discoveries for student reference, however it should be taken down or covered when administering the final assessment
4. Some shapes composed by students may be abstract objects.
5. Throughout the course of a day encourage students to find objects composed of two or more 3-D shapes either at home or in the classroom.
 |

 | **Student Engagement Strategies** T-P-SManipulativesCFU( check for understanding)TPS |
| **Middle (Investigating/Exploring):****Monday:** NO SCHOOL MARTIN LUTHER KING JR.**Tuesday:*** 1. Play the game “Identify the 3-D Shape” (10min.)
	2. Complete study guide: 3 Dimensional Shapes
	3. Do a share writing (put a cone on top of a rectangular prism): write as many attributes. Ex. It has \_\_ vertices, \_\_\_ edges, \_\_\_faces.

**Wednesday:*** 1. Play the game “Identify the 3-D Shape” (10 min.)
	2. Complete study guide: Relate 2-D to 3-D
	3. Do a share writing (put a cone on top of a rectangular prism): write as many attributes. Ex. It has \_\_ vertices, \_\_\_ edges, \_\_\_faces.

**Thursday:*** 1. Play the game “Identify the 3-D Shape” (10min.)
	2. Complete study guide: Identify 3-D Shape
	3. Do a share writing (put a cube under a pyramid): write as many attributes. Ex. It has \_\_ vertices, \_\_\_ edges, \_\_\_faces.

**Friday:**Final Assessment:Provide students with a couple of 3-D shape blocks and put two or more together to create as many new shapes as they can.  Have them describe the composite shapes’ attributes to you (number of vertices, edges, faces).

|  |  |  |  |
| --- | --- | --- | --- |
| **Level 5: Distinguished Command** | **Level 4: Strong Command** | **Level 3: Moderate Command** | **Level 2: Partial Command** |
| Can create **many many** “new” shapes with their 3-D shape blocks.Identifies and understands many attributes of shapes. | Can create **several** “new” shapes with their 3-D shape blocks.**Identifies and understandsmany** attributes of shapes. | Can create **few** “new” shapes with their 3-D shape blocks.Identifies **several** attributes of shapes. | Can only create 1 “new” shape with their 3-D shape blocks. Identifies few attributes of shapes. |

 | **Student****Engagement Strategies** T-P-SManipulativesCFU( check for understanding) |
|  **End (Summary): (ex. Exit ticket, quick write)**TW show a shape and ask the name of the shape, number of sides and number of vertices. | Student Engagement:T-P-S, Whole group response, partners, independent work |

|  |  |  |
| --- | --- | --- |
| 4 Hour ELD Weekly Lesson Plan | **Week of Lesson:**  | January 20-24, 2014 |
| Time of Daily Lesson: | 9:25-10:05 | Grade Level: | 1st Grade |
| **ELPS (English Language Proficiency Standard):** | [ ]  **I** | **[x]  Il** | **[ ]  III** | **[ ]  IV** | **[ ]  V** |  |
| **Proficiency Level:** | **[ ] PE** | **[ ] E** | **[x]  B** | **[x]  I** |  |  |
| **Time Allocation: 30 min.**  | **Oral English Conversation** |
| **ELP Standard(s)/Performance Indicator(s):** **Student Friendly Language Objective:** | **II-LS-1-HI-5: responding to social conversations by rephrasing and repeating information, asking questions, and expressing one’s thoughts****II-LS-2-HI-2: independently reciting familiar rhymes, songs, chants and text with accurate pronunciation, prosody, voice projection and expression** |
| **Vocabulary:** * Cone, cube, cylinder, sphere, rectangular prism, cuboid, triangular prism, rectangular pyramid, and triangular pyramid.
* Apex (The point (vertex) furthest from the base of an object.) <http://www.mathsisfun.com/definitions/images/apex-base.gif>
* attributes (defining: & non-defining: color, size, oriental, overall size)
* composite (a figure is made from two or more geometric figures)
* compose (put together)
* Sides, angles, faces, vertices, apex
* 2-D, 3-D
* Compose
 |  |
| **Materials:** | Vocabulary picturesYoutube song: <http://www.youtube.com/watch?v=K9L9l86N-xM> |
| LESSON DELIVERY |
| **Monday:**  | NO SCHOOL MARTIN LURTHER KING JR. |
|  **Tuesday:** | TW review vocabulary words using pictures/TPR. SW echo respond to definition and TPR. *use sentence stem; The word \_\_\_\_\_ means\_\_\_*TW use the vocabulary word in an academic sentence.SW echo respond to the sentence.SW use the word in a complete sentence.*use sentence stem; This word is \_\_\_\_\_\_ I have heard it or seen it at \_\_\_. Another way I can use this words in a sentence is \_\_\_\_\_.* TW use inside/outside circle to share the sentences multiple times. |
| **Wednesday:**  | TW review vocabulary words using pictures/TPR. SW echo respond to definition and TPR. *use sentence stem; The word \_\_\_\_\_ means\_\_\_*TW use the vocabulary word in an academic sentence.SW echo respond to the sentence.TW show video to teach songSW sing the song using correct pronunciation TW ask “what is your favorite part of the song?’SW respond using “My favorite part is \_\_\_. I like it because \_\_\_\_. |
|  **Thursday:**  | TW review vocabulary words using pictures/TPR. SW echo respond to definition and TPR. *use sentence stem; The word \_\_\_\_\_ means\_\_\_*TW use the vocabulary word in an academic sentence.SW echo respond to the sentence.TW show video to teach song onceSW sing the song using correct pronunciation TW ask “what did you notice about the video today (graphics)?’SW respond using “I noticed that \_\_\_\_. |
| **Friday:**  | TW review vocabulary words using pictures/TPR. SW echo respond to definition and TPR. *use sentence stem; The word \_\_\_\_\_ means\_\_\_*TW use the vocabulary word in an academic sentence.SW echo respond to the sentence.TW show video to teach song onceSW sing the song using correct pronunciation TW ask “what did you notice about the video today (graphics)?’SW respond using “I noticed that \_\_\_\_. |
| **ASSESSMENT:** | Observation (can students respond using complete sentences, are students responding using correct tense, are students using correct pronunciation when they are singing and speaking. |