Target Language: English as a Second Language	Grade Level: 2 and 3
Proficiency Level: Junior Novice Low – Junior Novice Mid	
Context and Storyline : Dave, a former student, has sent an email telling the 3 have motivated him to explore them when he grew visit pyramids. He has sent a picture of a pyramid to invites the class to follow him in exploring different p history, math, and today's life. Through communicat people's lifestyles and cultures are reflected in pyram are connected to math and how the pyramid concept	w up. Now he is traveling around the world to the teacher to show his appreciation. He pyramids in the world and their influence on ting with Dave, they will see how ancient mids. They will also comprehend how pyramids
 Enduring Understanding: At the end of this module, students will understand: Ancient pyramids reflect both function and o Mathematics can help us create and underst Pyramids have modern uses and functions 	culture
Essential Questions: What can we learn from ancient pyramids? What makes a pyramid shape special? How do people use pyramids today?	
Module Duration and Lessons: Depending on the length and frequency of classes per module could be taught during the period of three to be taught over a week, with 30 minutes classes three Lesson 1 – What is a pyramid? (Engagement stage for Lesson 2 – Pyramids in different countries. (Explorat Lesson 3 – Treasures Inside! (Explanation stage for r Lesson 4 – Constructing our own pyramids. (Elaborat Lesson 5 – Performance Assessment Tasks. (Evaluation outcomes)	o five weeks. On the average, each lesson may e to five times per week. or introduction) ion stage for main events and practice) main events and practice) tion stage for summary and review)

Standards Targeted	
5C – World Language Standards	5E – STEM Standards
 Communication Ask and answer simple questions related to pyramids (1.1A) Exchange personal preferences and opinions about treasures (1.1B) Interpret basic oral or written information about pyramids (1.2A) Present information about pyramids (1.3.A) Cultures Identify and name some famous pyramids in Egypt, Mexico, and other countries. (2.1.A) Talk about why pyramids were built. (2.1A) Identify the use of the pyramid shape in our daily life. Connections Use math-related vocabulary and expressions to talk about pyramids (3.1.A) Comparisons Identify similarities and differences among pyramids from different cultures. (4.2) Communities Share information or enjoy one's own treasure. (5.1) Present and introduce the pyramids constructed.(5.2) 	Technology 1.D.1 Construct a pyramid Mathematics G3.Geometric measurement 8. Solve real world and mathematical problems involving perimeters of polygons. Social Studies Grade 3 Standard 3.0 Geography Students will use geographic concepts and processes to understand location and its relationship to human activities. 1. Identify natural/physical and human made features of places and regions.

Knowledge: Students will know	Skills: Students can
Vocabulary (both linguistic and content areas) What is a pyramid? / What math can you find in a pyramid? • Email • read • write • receive from • send to • picture • Pyramid • apex • face • edge • vertex • base • Shape • triangle • square • rectangle • polygon • Time • ancient/old • modern/new Where can we find them? • travel • Place • world • Egypt • Mexico • Sudan • Guatemala • Mayan Why were pyramids built? • Build • Make • Honor • Ruler • Pharaoh/king What is inside a pyramid? • Treasure • Hide • Inside	 (Can do statement) Oral Language: <i>I can</i> identify and label parts of a pyramid. show and name where pyramids are found. tell why pyramids were built. Identify and label geometric shapes around me (pyramids, triangles, squares). name and explain what my treasures are. tell others what I can find inside a pyramid Literacy: <i>I can</i> read and understand pictures and stories that we have learned about pyramids. read and write simple comparisons among different pyramids. write about a pyramid using vocabulary and expressions that I have learned to. STEM and Other Subject Areas (Including Cultures): <i>I can</i> describe the shape of a pyramid. talk about math concepts in a pyramid. show the location of some pyramids using Google Earth. ask and answer questions about a pyramid and tell what they were used for. tell how pyramids are the same or different from one another. create a 3D pyramid

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	 Mural 	
	 Jewelry 	
1	 Gold vielus 	
	 value 	
What o	does a pyramid look like:	
٠	height/high/tall/short	
•		
• pretty/beautiful		
• precious		
 important 		
Tools f	for making pyramid	
• Stone		
•	Dirt	
Conte	nt compatible language :	
•	have – eg. It has three faces.	
•		
•	is treasure.	
 is treasure. many years ago. 		
 Build/was built 		
 Build/was built It's amazing/huge/tall 		
 It's amazing/huge/tail I went(traveled) 		
•		
•	 They both have 	
•		
 is made of taller/shorter/smaller than 		
•	the morethe more	
•		
•	top/bottom	

Performance Assessment

Interpretive Task: Find the Picture to match Dave's Email about Another Pyramid

Dave sends another email about a pyramid that he visited in different country, but he forgot to attach a picture. Teacher found some pictures of pyramids. Which one matches the description that Dave sent?

Interpersonal Task: Which Pyramid did You Make and What Treasures are Inside?

Once the pyramids are unveiled, students use their notes to identify which pyramid is built by a certain group of students. They will keep the worksheet on which they record their guesses about the pyramid and which group constructed each of them.

This worksheet will be use to tally their accuracy of the guesses during the next task.

Presentational Task: This is our Pyramid!

Students will make an oral presentation about the pyramid that their group has built and the treasures

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inside. The class will compare how many pyramids have been identified correctly from the interviews above.

Presentational Task: An Email to Dave about My Experiences

Students write emails to Dave about their experiences while learning about pyramids.

Materials/Resources

Materials/Resources

- World map or globe, preferably in blue and green.
- Worksheets, resources, and PowerPoint as specified in each lesson
- Materials for building 3D pyramids as specified in Lesson 4.
- Equipment for recording students' performance assessment tasks
- **Power Point**: Pyramid

Lesson one:

- Pyramid: Ppt. ss. 1-16
- Worksheet 1a Dave's email to the teacher (1)
- Worksheet 1b Templates for pyramid # 1, #2
- Worksheet 1c Telling about my Pyramid
- Worksheet 1d Students write email to Dave (2)

Lesson two:

- Google earth (teacher will need to download from this site: <u>http://www.google.com/earth/index.html</u>)
- Pyramid: Ppt. ss. 17-26
- Worksheet 2a Dave's email from Egypt (3)
- Worksheet 2b Pyramid Chant: Egypt and Mexico
- Worksheet 2c Dave's email from Mexico (4)
- Worksheet 2d Venn Diagram
- Worksheet 2e Pyramid heights
- Worksheet 2f Comparing Pyramids
- Worksheet 2g Students write another email to Dave (5)

Lesson three:

- Pyramid: Ppt. ss. 27-35
- Worksheet 3a Email from Dave, thanks for students' email and comments on their pyramids (6)
- Worksheet 3b Email from Dave, I went to a museum (7)
- Worksheet 3c A mural in a Pyramid
- Worksheet 3d King Tut's and My Teasures'
- Worksheet 3e My Treasures

Lesson four:

- Pyramid: Ppt. ss. 36 41
- Worksheet 4a What have we learned?
- Worksheet 4b Describing our Pyramid
- Worksheet 4c Our Pyramid

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Lesson Five:

- Pyramid: Ppt. ss. 42-43
- Worksheet 5a- Email from Dave, Where was I? (8)
- Worksheet 5b Which Picture shows the pyramids of Tikal?
- Worksheet 5c Interview
- Worksheet 5d Rubric for Oral Performance Task
- Worksheet 5e An Email to Dave (9)

STEM Background for teachers: (identified and provided by a STEM teacher/resource person) Mathematical Information:

In geometry, a pyramid is a polyhedron with a single base that is a polygon and with faces that are triangles. It is a solid, 3D shape. The base of a pyramid can be any polygon. The face of a pyramid is the flat surface that connects the apex and the base. The apex is the point of the pyramid where all the triangular faces meet. The height of the pyramid is a segment that goes from the vertex to the base, forming a right angle with the base. An edge of the pyramid is a segment where a face meets the base or another face while a vertex is a point where two triangular faces meet the base. The slant height of a pyramid is the height of a triangular face.

A tetrahedron is a pyramid with a triangular base. It has three faces. A square pyramid has an apex directly above the center of its base so the altitude meets the base at the center. It has four faces. A rectangular pyramid has a rectangular base and four faces. A hexagonal pyramid has a hexagon for its base and six faces. An octagonal pyramid has an octagon for its base and eight faces.

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Lesson 1-What is a Pyramid? *Title in Target language*

Lesson 1 of 5 - N	/hat is a Pyramid? Duration: 30 Minutes
Objectives	 I Can: Oral language: Identify and name the <i>apex</i>, <i>face</i>, <i>base shape</i>, <i>vertex</i>, and edges of a <i>pyramid</i>. Literacy: Label the <i>apex</i>, <i>face</i>, <i>base shape</i>, <i>vertex</i>, and <i>edge</i> of a <i>pyramid</i>. STEM and Other Subject Areas: Use math words such as <i>apex</i>, <i>face</i>, <i>base shape</i>, vertex, and <i>edges</i> to talk about a pyramid.
Vocabulary and Expressions	Previously learned: Fold, flap, cut, open, label, big, bigger Content obligatory language: Pyramid , apex, face, base, edge, treasure Egypt shape, triangle, square, rectangle, It has three faces. It has three edges. It is a square. It is a triangle. It is a rectangle. Content compatible language : thank you, like scissors, tapes, glue, math
Materials/ Resources	 Pyramid: Ppt. ss. 1-16 Worksheet 1a – Dave's email to the teacher (1) Worksheet 1b - Templates for pyramids # 1, #2 Worksheet 1c – Telling about my Pyramid Worksheet 1d – Students write email to Dave (2)

Lesson Storyline and Core Text	Lesson Storyline: The teacher shows a picture of Dave, Ppt ss.2-4 , a former student –Standing in front of a pyramid in Egypt, Dave thought of the teacher who motivated him to explore the world's pyramids, so he emailed his teacher to thank her. The class gets interested in pyramids too and decides to explore virtually with Dave in his journey. The first thing the class needs to do is to learn what a pyramid is.
	Core Text: (Worksheet 1c) This is a picture and an email. Dave was in my third grade class Dave sent it to me. Can you tell where he is? What is behind him? It is a pyramid. Here we have more pictures. Dear Mr. /Mrs I am Dave. I was in your third grade class. Now here I am, in Egypt! I am standing in front of a pyramid. It is huge! I am sending you this picture to thank you. I will continue to visit other pyramids. I can send you more pictures when I visit them. A pyramid has a single base. Its base is a polygon The base of a pyramid can be a triangle, square, or a rectangle. This is the apex of a pyramid, let's make a pyramid. We will learn what are apex, edge, face, vertex and base.

Key Elements	Lesson 1 Procedures What is a Pyramid? What is special about
Engagement • Object, event or question	An email from Dave Teacher brings students a picture of a pyramid in Egypt that a former student, Dave, had emailed him/her.
used to engage students. • Connections	T: (Showing picture of Dave in Pyramid ppt s.2) <i>Hi, everyone! Look what I have!</i> This is a picture and an email that I received yesterday. Dave was in my third grade class, just like you are now. Dave sent it to me.
facilitated between what students know and can do	T: (Pyramid: Ppt ss.3-4) Can you tell where he was? He was in Egypt. What is behind him? Is that a pyramid or a house? Yes, it is a pyramid. Here are some more pictures.
	T: Let me read you his email. Worksheet 1a – Dave's email to teacher (1)
	T: (Reading the email)

Key Elements	Lesson 1 Procedures What is a Pyramid? What is special about	
	Dave wrote to his 3 rd Grade teacher From: Dave Subject: Greeting from Egypt	
	Dear Mr./Mrs (teacher's last name), How are you? Do you remember me? I am Dave. I was in your third grade class when we learned about pyramids in the world. We had so much fun then. I told you that I wanted to visit these pyramids when I grew up. Now here I am, in Egypt! I am standing in front of a pyramid. It is huge! I am sending you this picture to thank you. I will continue to visit other pyramids. If you want me to, I can send you more	
	pictures when I visit them. Your student, Dave	
	Distribute Dave's email to the class and allow students time to read in pairs or in small group.	
	Teacher asks the students questions to check their comprehension.T: Now, Class, do you want to receive more emails and pictures from Dave?The class responds.	
	T: Okay, our class can write to Dave and ask him to write to us about his journey and send us more pictures.	
	T: <i>Before we write to him let's learn something about pyramids.</i> Students respond.	
Exploration • Objects and phenomena are explored.	What is a pyramid? Teacher shows the students pictures of pyramid and non-pyramid, Ppt ss. 5-7 , and asks them to identify a pyramid. While explaining what a pyramid is, refer to a non-pyramid to test each criterion.	
• Hands-on activities, with guidance.	T: (Lead students to find the differences between pyramids and non-pyramids. For example – Compare a pyramid with a roof that has a triangle shape. Have students repeat.) <i>Is this a pyramid or not a pyramid?</i>	
	T: <i>Right, this is a pyramid because it is a 3D shape (</i> or whatever element you wish to point out). <i>Right, this is not a pyramid because</i>	
	T: A pyramid has a single base. Its base is a polygon.	

Key Elements	Lesson 1 Procedures What is a Pyramid? What is special about
	T: See, triangle, square, and rectangle are all examples of a polygon. (Ppt ss. 8-13 shows examples of these shapes and guides students to identify and practice.)
	 T: The base of a pyramid can be a triangle, square, or a rectangle. T: (Ppt ss.14-15) This is the apex of a pyramid. This is the face of a pyramid. The face of a pyramid is the surface that connects the apex and the base. T: What's the shape of a pyramid's face? (Show different pyramids for students to observe.)
	Students respond.
	T: The faces of a pyramid are triangles. T: This is an edge. Every pyramid has several edges. This is a vertex. Every pyramid has several vertices.
	Do a quick review of each part of a pyramid for closure.
Explanation	Let's make a pyramid
• Students explain their	T: You are going to make your own pyramids today, but first, let's learn to write some math words about a pyramid.
understanding of concepts	Model how to write: <i>pyramid, face, base, edge, triangle, and square.</i> Allow students some time to practice.
and processes. • New concepts and skills are introduced as conceptual clarity and cohesion are sought.	Distribute pattern sheets for a triangle-based pyramid or a square-based pyramid, Worksheet 1b . (Be sure to have extra sheets of both kinds for students who make a mistake during the cutting and folding.) Ask students: <i>Do you want a square base or a triangle base?</i>
	T: Let's make pyramids. First let's find the base and label it. (Another option would be to have them color it first, then label.) Everyone please point to your base. (Circulate to make sure all students are pointing to the base. This could be a problem for the triangle bases.) Now find the faces for your pyramid. What shapes are the faces? (Students respond.) Now label all the faces for your pyramid. How many faces do you have on a square based pyramid? How many faces do you have on a triangle based pyramid?
	T: Great! Let's cut out the shapes with your scissors, very carefully. (Demonstrate and walk around to help, as needed.) Next, fold up the flaps next to the triangles. (Demonstrate and monitor.) Now fold each triangle up from the base. (Demonstrate and monitor.) Now tape/glue your pyramid together. You can glue the flaps on the inside or the outside of your pyramid, whichever you want. (Demonstrate and monitor.)
	When finished, ask the students to show and say the parts of their pyramids, as a group and individually:

Key Elements	Lesson 1 Procedures What is a Pyramid? What is special about
	 T: Show me your base. Ss: (Show the base) This is the base. T: What shape is your base? Ss: The base is a Square/Triangle (depending on the pattern they have chosen) T: Show me the faces. Ss: (pointing) Here are the Faces. T: How many faces does your pyramid have? Ss: It has Three/Four faces. (depending on the pattern they have chosen) T: How many edges does your pyramid have? Ss: It has six/eight edges. (depending on the pattern they have chosen) T: How many vertices does your pyramid have? Ss: It has six/eight edges. (depending on the pattern they have chosen) T: How many vertices does your pyramid have? Ss: It has five/six vertices. (depending on the pattern they have chosen) Teacher models how to write a description about a pyramid by following the sentences on Ppt s.16. Students follow orally with the teacher.
	Students work on Worksheet 1c (Telling about my Pyramid) to describe the pyramids they have made. Teacher collects Worksheet 1c for assessment.
Elaboration	Sing the pyramid song
• Activities allow students to apply concepts in	T: Now we will learn a pyramid song! (Teacher models entire song for students to the tune of "Old McDonald Had a Farm. Next, teacher sings line by line as students repeat the lines. Finally, students sing entire song together.)
contexts, and	For the triangle-based:
build on or extend understanding	I have made a pyramid, it has a triangle base. It has a face here, a face there One, two, three faces
and skill.	I have made a pyramid with an apex on the top.
	I have made a pyramid, it has a triangle base. It has vertex here, a vertex there, One, two, three vertices, A face here, a face there One, two, three faces I have made a pyramid with an apex on the top
	I have made a pyramid, it has a triangle base. It has an edge here, an edge there, One, two, three, four, five, six edges; A vertex here, a vertex there, One, two, three vertices,

Key Elements	Lesson 1 Procedures What is a Pyramid? What is special about
	A face here, a face there
	One, two, three faces
	I have made a pyramid with an apex on the top
	For the square-based:
	I have made a pyramid, it has square base.
	It has a face here, a face there,
	One, two, three, four faces
	I have made a pyramid with an apex on the top.
	I have made a pyramid, it has a square base.
	It has a vertex here, a vertex there,
	One, two, three, four vertices,
	A face here, a face there,
	One, two, three, four faces
	I have made a pyramid with an apex on the top.
	I have made a pyramid, it has a square base.
	It has an edge here, an edge there,
	One, two, three, four, five, six, seven, eight;
	A vertex here, a vertex there,
	One, two, three, four vertices,
	A face here, a face there,
	One, two, three, four faces
	I have made a pyramid with an apex on the top.
	Students may practice by shape. The class can join in chorus.
	Literacy practice: Remind students today they can write an email to Dave, Worksheet 1d.
	Use Language Experience Approach (LEA) to work with students in writing an email. In the email, students will introduce themselves (greeting, introduction), and tell Dave that they are in Mr. /Mrs. X's third grade class. Tell Dave that they would like to learn more about Pyramids. Ask Dave to send more emails and pictures to the class.
	Note : The Language Experience Approach (LEA) is an approach to reading instruction based on activities and stories developed from personal experiences of the learner. The stories about personal experiences are guided by the teacher and created by students, then written down by the teacher and read together until the learner associates the written form of the word with the spoken.

Key Elements	Lesson 1 Procedures What is a Pyramid? What is special about
Evaluation • Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.	 Assessment: Presentational: In pairs or small groups, students describe their pyramids. Presentational: In pairs or small groups, students sing the pyramid song. Students use Worksheet 1c to describe a pyramid in writing. Distribute Worksheet 1d for students to write their individual emails to Dave as part of assessment. Collect all the papers when finished.

	Teacher Reflection Lesson 1- What is a Pyramid?
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	

Pyramid Around the World

Lesson 2 – Pyramids in different countries *Title in TL*

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Lesson 2 of 5 – P	vramids in different countries	Duration: 30 Minutes
Objectives	 I can: Oral language: Describe the pyramids in Egypt and in Mexico. Tell how the Pyramid of the Sun is similar to and different from the pyramids in Egypt. 	
	 Literacy: Read and write short labels or short t Read or write about how certain pyra from each other. 	
	 STEM and Other Subject Areas: Show the location of some pyramids 	using Google Earth.
Vocabulary and Expressions	Content obligatory vocabulary Mexico, Egypt, honor, ruler, pharaoh Height, Tall (high), short Travel, sun, moon Content compatible vocabulary I went to see They both have because Comparative and/or superlative expressions X is taller/shorter than Y; X the tallest	
Materials/ Resources	 Map or Globe Google earth (teacher will need to downl http://www.google.com/earth/index.htm Pyramid: Ppt. ss. 17-26 Worksheet 2a – Dave's email from Egypt Worksheet 2b – Pyramid Chant: Egypt ar Worksheet 2c – Dave's email from Mexico Worksheet 2d – Venn Diagram Worksheet 2e – Pyramid heights Worksheet 2f – Comparing Pyramids Worksheet 2g – Students write another of 	nl) t (3) nd Mexico co (4)
Lesson Storyline and Core Text	Lesson Storyline Students hear from Dave again. He is now at Pyramid of Khufu and sends a picture of the p	

Mexico, where he will visit the Pyramid of the Sun. In addition to learning so cultural information about these pyramids, students compare them.		
Core Text: I am glad that you decided to travel with me. It was built more than four thousand years ago. This is a picture and an email that I received yesterday. What have I found out about the pyramid in Egypt? I went to see a pyramid that honors a king/pharaoh.		
I went to see two pyramids in Mexico. The pyramid that honors the sun, The pyramid that honors the moon. These pyramids also honor the king. I found two pyramids that honor the sun, the moon, and the king!		
What kind of base does it have? How many faces does it have? How many edges does it have? What is this pyramid called? Where is it? Can you find Mexico?		

Key Elements	Lesson 2 Procedures- Pyramids in different countries
Engagement • Connections facilitated between what students know and can do	Sing the Pyramid song Students hold their pyramids and sing the Pyramid song together. Lead a review of the structure of a pyramid.
 Exploration Objects and phenomena are explored. Hands-on activities, with guidance. 	Another email from Dave T: (Show students another email and pictures sent by Dave) Look what I have. Dave sent another email and a picture. Worksheet 2a – Dave's email from Egypt (3). T: Let's read his email and look at the picture.

Key Elements	Lesson 2 Procedures– Pyramids in different countries	
	Egypt: Pyramid of Khufu (with a square base)	
	From: Dave Subject: Pyramid of Khufu, Egypt	
	Hello, Class.	
	I am so glad that you decided to travel with me to see pyramids around the world.	
	Now I am at Giza/Cairo in Egypt. The picture is of the Great Pyramid. It is one of the Seven Wonders of the Ancient World. It has a square base. It is the tallest pyramid in the world. It was built more than four thousand years ago to honor Pharaoh Khufu.	
	I hope you like the picture I sent you.	
	I am going to Mexico next. I hear there are many pyramids there! I can't wait to find out.	
	Your friend,	
	Dave	
	Ask students to identify Egypt on the world map and locate where the Pyramid of Khufu is located. Use Map, Globe or Google earth & Ppt ss. 17-19 to help students locate the pyramid. Read the email and ask students if they understand the email.	
	T: It's fine if you don't understand everything. Now, let's find out more about what he wrote in his email.	
	Note to teacher: Read the email again; break it down into smaller chunks. Ask comprehension questions and make sure students understand the content of the email. For example:	

Key Elements	Lesson 2 Procedures- Pyramids in different countries		
	T: What T: Can ye (Square- pyramid T: Where	T: Where was Dave? (Egypt, Giza or Caro, Pyramid) T: What is the name of the pyramid? T: Can you tell me something special about this pyramid? Square-based; for Pharaoh Khufu; more than 4000 years ago; the tallest byramid in the world). T: Where will Dave go next? What will he see there? Students respond.	
		Show students video of Egyptian pyramids if time allows. http://bit.ly/TKcTLT T: Now let's learn a Pyramid Chant: Worksheet 2b, Part I	
		I went to see a pyramid in Holding up both hands to make Egypt, in Egypt. a pyramid shape.	
		I <u>went</u> to see a <u>pyramid</u> that honors a king.	Put both hands over the head, making it the shape of a crown for a pharaoh.
		And <u>wha</u> t did I <u>find? What</u> did I <u>find</u> ?	Put one hand over the eyes as if looking for something, turning left and right.
		I <u>found a pyramid</u> that honors <u>Pharaoh Khufu!</u>	Holding up both hands to make a pyramid shape.
	pairs or	vide students into pairs or small groups to practice the chant. Ask volunteer irs or groups to perform. fore students leave, lead students in singing the pyramid song.	
Explanation	Dave's Journey in Mexico		
 Students explain their understanding of concepts and processes. New concepts and skills are introduced as concentual 	Note: Not much is known about the people who inhabited the central Mexican city of Teotihuacan in the first few centuries A.D., but they clearly had architectural skills. Their well-planned city covered more than seven square miles and included several pyramids, the most impressive of which is the Pyramid of the Sun. The sides of its square base are about 730 feet wide, and its five stepped layers once rose to a height of over 200 feet. It is situated beside the city's central road, the Avenue of the Dead, which runs south from the Pyramid of the Moon to a large temple complex.		
conceptual clarity and cohesion are sought.	Read more: <u>http://bit.ly/11IBZEk</u> and <u>http://www.sacred-destinations.com/mexico/teotihuacan</u> <u>http://www.history.com/topics/pyramids-in-latin-america</u>		

Key Elements	Lesson 2 Procedures- Pyramids in different countries		
	http://bit.ly/YB4Kya		
	Lead students in the Pyramid song and the Pyramid Chant. Ask students where Dave was when he sent his last email and picture. Ask questions about the pyramid in Egypt.		
	Show students another envelope with email, Worksheet 2c - Dave's email from Mexico, and picture. Ask students if they can predict what the envelope has. Ask them where Dave might be now.		
	Use a world map, locate Mexico.		
	T: Read Dave's email (3), Worksheet 2c, show pictures to students, Ppt ss. 22- 26.		
	Dear Class,		
	Did you like the Pyramid of Khufu? Wasn't it grand? Guess where I am now.		
	Now I am in Mexico. In Mexico, there are several famous pyramids. These are pictures of two famous ones in Teotihuacan. One is the Pyramid of the Sun, and the other is the Pyramid of the Moon. They are very old. Their bases are square and very big.		
	I hope you like the pictures I sent you.		
	Your friend,		
	Dave		
	Distribute Dave's email to the class and allow students time to read in pairs in small groups. Repeat the process from yesterday for teaching the pyram in Egypt. Sample questions may include the following: T: What kind of base does it have? T: How many faces does it have? T: How many edges does it have? T: What is this pyramid called? T: Where is it? Can you find Mexico?		
	Have students sing the Pyramid Chant to apply what they have learned about the pyramids. Pyramid Chan, Worksheet 2b, Part II		

Key Elements	Lesson 2 Procedures- Pyramids in different countries		
	I went to see some pyramids in Mexico, in MexicoHold up both hands to make a pyramid shape.		
	I went to see a pyramid that honors a king.Put both hands over the head, making it the shape of a crown for a king.		
	And what did I find? What didPut one hand over the eyes as ifI find?Iooking for something, turningleft and right.		
	I found a pyramid that honorsPut both hands over the head,the sun.making the shape of the sun.		
	I found a pyramid that honors the moon.Put both hands over the head, making the shape of the moon.		
	They honor the sun, and the moon, and the king!Put both hands over the head, making the shape of the sun, the moon, and a crown (as each word is chanted.		
Elaboration	Literacy development		
• Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.	Compare pyramids in Egypt and Mexico a. Distribute the Venn diagram, Worksheet 2d, and use Worksheet 2e as one of the resources. Divide students into pairs or small groups to compare and contrast the two sets of pyramids. Same (in the overlapped middle): square base have faces, edges, vertexes, apex. Honor rulers Different: locations; height (find info about the heights of each pyramid); shapes		
	 b. After comparison, students work on Worksheet 2f c. Gallery Walk: Each group posts their Venn diagram on the wall. Walk around to see what each group wrote and ensure accuracy. 		
	2. Writing an email to Dave		

Key Elements	Lesson 2 Procedures- Pyramids in different countries	
	Now, Class. Dave has written to us. What would you like to write to him? The Language Experience Approach: Invite students to express what they and to say/write to Dave. Guide students to focus on the topic of pyramids d the two countries he has visited. As students say something, recast in rrect but simple language, if necessary, and write on the board for udents to copy once the email is done. For example, Worksheet 2g	
	From:(name) To: Dave Date: Subject: (Thank you and Pyramids) Dear Dave,	
	(Thank you) so much for sending us (emails) and (pictures). We (like) the (Great Pyramid) in (Egypt). It is very (big; tall). It is also one of the (Seven) Wonders of the Ancient World. It is to (honor) (King) Khufu.	
	We also like the (Pyramid of the Sun) and (Pyramid of the Moon) in (Mexico). They are also very (big) and(tall). They were to (honor) the (Sun), (the Moon), and the (kings).	
	These pyramids have (apex),,, and (edges, faces, and vertexes). They all have (square bases) (Thank you) for sending us these wonderful (pictures). Where will you go next time? Please write and send us pictures.	
	Your friends, Mr./Mrs's Class	
	Sing the pyramid song or chant.	

Key Elements	Lesson 2 Procedures– Pyramids in different countries	
Evaluation • Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.	 Assessment: Using their answers on Worksheet 2f, students make oral presentations about their findings. (Make sure to give them some time to prepare what they want to present.) Distribute a blank Worksheet 2g for students to write their individual emails to Dave as part of assessment. Collect all the paper when finished. 	

Teacher Reflections on Lesson 2 – Pyramids Around the World		
What worked well?		
What did not work well?		
What would I do differently?		
Other comments or notes		

Pyramid Around the World

Lesson 3 – Treasure Inside! *Title in TL*

Lesson 3 of 5	Treasure Inside	Duration: 30 Minutes
Objectives	 I Can: Oral language: Identify and name treasures from a group of objects. Tell what I can see on a mural inside of the pyramid. Literacy: Read and write about a mural inside a pyramid. 	
	STEM and Other Subject Areas (Including Culture	-
	 Talk about what can be found in a pyram 	id, i.e. treasure, muralsetc.
Vocabulary and Expressions	Content obligatory language Hide, treasure, honor people, inside, mure	al
	Content compatible language I can see in is treasure. They lived many years ago. It's amazing!	
Materials/ Resources	 Pyramid: Ppt. ss. 27-35 Worksheet 3a – Email from Dave, thanks for on their pyramids (6) Worksheet 3b – Email from Dave, I went to a Worksheet 3c – A mural in a Pyramid Worksheet 3d – King Tut's and My Teasures' Worksheet 3e – My Treasures 	museum (7)
Lesson Storyline and Core Text	Lesson Storyline: Dave sent another email and some pictures to the museum while he was traveling. He saw the King students learn what kinds of treasures were store extension, students learn the meaning of treasure different to different people because what they w will talk about what their own treasures are.	Tut exhibit. From his email, ed inside a pyramid. By e, that is, treasure may be
	Core Text: (Worksheet 3a)	
	Thank you very much for your emails and	pictures.

Your pyramids are awesome. Your emails are wonderful. I will go to a museum tomorrow. I saw a lot of treasures.
King Tut was an Egyptian king. Egyptians built a pyramid to honor him. Inside the pyramid, there were murals and gold. They are treasures. They are important.
This is a mural. It is inside a pyramid. I can see (people) in the mural. They lived many years ago. It's amazing! The mural is treasure, too. Do you have treasure? Is your treasure the same as my treasure?

Key Elements	Lesson 3 Procedures Treasure Inside
Engagement Object, event Object, event or question used to engage students. Connections facilitated between what 	A trip to Museum Students review the pyramid song and chant. Post students' personal emails to Dave on the wall. The class does a gallery walk and asks questions of each other. For example, Student A: What kind of base does this one have? How many faces does it have?
students know and can do	How many edges does it have? What is this pyramid called? Where is it? Can you find Mexico? Student B: Students ask each other's Venn diagram's results
	Worksheet 3a, Email from Dave (6) - Thanks students for their emails and comments on their pyramids.
	From: Dave Subject: I went to a museum To: Mr. /Mrs class. Dear Class,
	Thank you very much for your emails and pictures. Your pyramids

Key Elements	Lesson 3 Procedures Treasure Inside
	are awesome. I love them! Your emails are wonderful. I love to read them. I can tell you are learning a lot. I am going to a museum tomorrow. I will let you know what I can find out about pyramids while I am there. I'll write again later. Your Friend, Dave Distribute Dave's email to the class and allow students time to read in pairs or in small groups. Ask comprehension questions about this email.
Exploration • Objects and phenomena are explored. • Hands-on activities, with guidance.	King Tut – The Golden King Tell the class that they have received another email and pictures from Dave. Read the email from Dave – I went to a museum (7), Worksheet 3b - Visited the Golden King From: Dave Date: (month/date/year, time) Subject: I went to a museum To: Mr. /Mrs. 'class. Dear Class, I hope you enjoy the pictures I sent you this time. I went to a museum today, where I saw a lot of treasures. They were treasures from King Tut's tomb. King Tut was an Egyptian pharaoh. Egyptians built a pyramid to honor him. People called him the Golden King. Inside the pyramid there were murals and gold. They are treasures. They are important. Here are pictures of treasures from King Tut's pyramid. I hope you like them. Your Friend,
	Dave

Key Elements	Lesson 3 Procedures Treasure Inside
	Show Ppt. ss. 28-30 and video or additional pictures from King Tut's tomb. Ask comprehension questions.
	http://www.kingtut.org/
 Explanation Students explain their understanding of concepts and processes. New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	 What is a Mural? Further explain treasure by showing Ppt ss. 30-32 and also intermittently modeling realia examples of personal treasure. T: Treasure is something very precious to someone. T: For King Tut, gold was treasure. The murals were treasure. Ppt. ss. 33-34 T: Are gold and murals from the pyramid treasure for us, too? Students respond. T: Why are they treasure? Is it because they are expensive? Or because they were from long time ago? T: (Show the mural inside a pyramid) Look at the mural inside the pyramid. What can you see?
	 S: People. (What are they doing?), andetc. T: Yes, these were Egyptians. They lived many years ago. T: Long ago there were no cameras, so people drew murals. These murals are pictures that show the life of Egyptians a long time ago. Now these murals are treasures for the world. Talk about gold, jewelry, statues, and other artifacts in similar ways. If time allows, Also shows students Mayan murals and see the different drawing techniques. Ppt. s. 35 Students read and complete Worksheet 3c, the Pyramid Mural Sheet, with the teacher. T: So, are pyramids treasures for the world? Why? T: What should we do for our treasures? Do we trash them or do we protect them? (Gesturing to express both concepts.) Students respond. Cite more examples to illustrate these concepts and ensure students' comprehension. For example, talk about various pyramids students have learned. Also show non-examples of pyramids that have not been protected.

Key Elements	Lesson 3 Procedures Treasure Inside
	Meroe, Sudan: The Nubian Pyramids
	There are hundreds of pyramidal tombs in the region of central Sudan once known as Nubia, built mostly out of reddish sandstone. About 40 of them are located in Meroe, a major city in the Kushite kingdom from about 300 B.C. to 300 A.D. The Nubian pyramids are smaller than the Egyptian pyramids, and more narrowly shaped. Although they have suffered from plunder and decay over the yearsan Italian explorer smashed the tops off many of them in the 19th century, apparently seeking treasurethey remain a remarkable sight.
	Read more: <u>http://www.smithsonianmag.com/history-archaeology/Ancient-</u> <u>Pyramids-Around-the-World.html#ixzz2DelyjQ7T</u> Follow us: <u>@SmithsonianMag on Twitter</u>
	 T: Let's look at these pyramids. They are in Sudan, Africa. (Locate Sudan in the world map.) T: What are these pyramids missing? (If necessary: These pyramids have no) T: The tops of these pyramids have been trashed. People were looking for treasure inside these pyramids, so they trashed/smashed the tops. What do we need to do with all pyramids? (Why is it important to protect them?)
	Students respond. (Protect, important, long time ago, trash.)
	Note: Lead students to talk about what is or is not a treasure. T: We all have treasures. To me, the emails from Dave are treasures to me. Because Dave was my student from long time ago. He remembers me. So his emails are treasure for me. (Continue with other personal treasures, such as a ring that belonged to a grandmother, a picture of a good friend or family, or other things that students can identify with. Name at least three or four additional things that show the range of treasures, and include drawings or pictures as mentioned below.)

: What is your treasure? Is your treasure the same as my treasure? tudents respond. : Tonight go home and find your own treasures. You can draw them or find ome pictures or bring some things to the school. You can also draw some maginary treasures. Tomorrow, we will share and see what our treasures are!
Show and Tell Students show and tell what their treasures are and why these things are creasures to them. Use Worksheet 3d – King Tut's and My Treasure, as a guide to ask students questions as a way to prepare them for assessment the next day.
ead students in a Pyramid Treasure Chant: Worksheet 3e
I <u>went</u> to see a <u>pyramid</u> in Egypt, in Egypt I <u>went</u> to see a <u>pyramid</u> that honored a pharaoh. And <u>wha</u> t did I <u>find</u> ? <u>What</u> did I <u>find</u> ? I <u>found g</u> old, murals, and other special things. These are treasures to King Tut and to us <u>!</u>
Nodel first, then turn to students and have students do the Round-Robins until ach students has shown his/her treasure.
Vhole class: I went to my house to look for treasures I went to my house to look for treasures And <u>wha</u> t did I <u>find</u> ? <u>What</u> did I <u>find</u> ?
tudent 1: I found
I found (repeat with each treasure)
These are important treasures to me. Turns to next student What are your treasures? What are your treasures? Can you show them to me?
Jsing LEA approach and Worksheet 3c , model for students to complete the vorksheet. Use peer editing and have students do self-correction. Collect the vorksheets and return them to students the following day.

Key Elements	Lesson 3 Procedures Treasure Inside
Evaluation • Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.	 Start with the Pyramid Treasure Chant. Return students' worksheet and ask them to practice. Assessment: Distribute Worksheet 3d for students to complete. In pairs and small groups, students act as museum guides and make oral presentation to the audience about King Tut's treasures. (Allow some time for students to prepare.) Use Worksheet 3e: My Treasure as assessment for students to write about their own treasure.

Teacher Reflections on Lesson 3 – <i>Treasure Inside</i> .	
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	

Pyramid Around the World

Lesson 4 – Constructing Our Own Pyramids

Lesson 4 of 5 – <i>Constructing Our Own Pyramids</i> Duration: 30 Minutes	
Objectives	 I Can: Oral language: Ask and answer questions about how to construct a 3-D pyramid. Literacy:
Vocabulary and Expressions	Content obligatory vocabulary tape, old/ancient, Content compatible vocabulary Decorate/decoration (eg. Color words) is made of It has It was built to
Materials/ Resources	 Materials for building 3D pyramids (white poster boards, glue, markers, tape) Pyramid: Ppt. ss. 36 - 41 Worksheet 4a - What have we learned? Worksheet 4b - Describing our Pyramid Worksheet 4c - Our Pyramid
Lesson Storyline and Core Text	Students review what they have learned about pyramids so far. They explore modern pyramids and see how these structures extend the shapes and functions of pyramids. Students decided to construct their own pyramids and hide treasures inside for people in the future to see, similar to the idea of a time capsule. In small groups, students make their unique pyramids and write descriptions about themselves and their pyramids and treasures for people in the future.
	Core Text People still build pyramids today. This is a food pyramid. Do we eat more of the food in the base or those in the top? The higher it is, the less it is.

Key Elements	Lesson 4 Procedures- Constructing Our Own Pyramids
Engagement • Object, event or question used to engage students. • Connections facilitated between what students know and can do	 What Have We Learned So Far? Divide students into small group. Using Worksheet 4a, each group works on the following topics: a. What is special about a Pyramid? b. What is a famous pyramid that I can talk about? c. What are treasures? d. What are examples of treasures in a pyramid or in my life? Allow students time to work independently on each topic first. Then direct each small group to discuss answers. Hold a class discussion for sharing and asking questions.
Exploration • Objects and phenomena are explored. • Hands-on activities, with guidance.	Can we find modern pyramids in our lives? Note: The key point in this lesson is for students to observe the influence of pyramids in civilization. First, the shape of a pyramid is still prominent in architecture and in our daily lives. Second, the notion that the higher it goes, the less quantity is in a pyramid. This concept can be seen in a food or exercise pyramid. T: <i>Class, are pyramids old/ancient?</i> Ss: <i>Yes.</i> T: <i>Did you know that people still build pyramids today?</i> Students respond. T: <i>Let's see some modern pyramids that people have built.</i> Ppt. ss. 37-38 More resource websites: <u>http://www.trendhunter.com/slideshow/modern-pyramid-architecture http://www.classbrain.com/artread/publish/article_31.shtml</u>
	 T: Where else do we find pyramid shapes around us? Have you seen any pyramids? Students respond. Ppt. ss. 39-40 T: (Show a picture of Food Pyramid.) Have you seen this before? Students respond. T: This is about the food we eat each day. Can you guess what is this called? S: A food pyramid. T: What does the food pyramid tell us? Do we eat more of the foods in the base or those in the top? Students respond. T: Right, the higher it is the less of it we should eat. The lower it is, the more of it

Key Elements	Lesson 4 Procedures- Constructing Our Own Pyramids
	 we should eat. So a pyramid can also show us the concept of more or less related to its shape. T: How about the exercise pyramid? You can see we also use pyramid shapes in our daily life. Show ppt. s. 41 and facilitate students to discuss what kind of activities to do more or less daily.
Explanation • Students explain their understanding of concepts and processes. • New concepts and skills are introduced as conceptual clarity and cohesion are sought.	 Let's make our own pyramids Show students a piece of white poster board. Also show a decorated pyramid made out of the poster board, asking students if they would like to make their own pyramids like this. Lead students to brain storm what colors and pictures they are going to use to decorate. Write down the generated vocabulary on the board for students to use later. Model how to enlarge and make a pyramid from Worksheets 1b.1 and 1b.2: Make a copy of the Worksheet 1b.1 or 1b.2. Select only one pyramid for the purpose of modeling. Post the Worksheet on the board so all students can see. Talk out loud so all students can follow the directions. Use a long ruler to measure each edge of the pyramid on the Worksheet and write down the measurement on the edge being measured. Double the measurement and write down the new measurements on all edges. Cross out original measurements. Cut the pyramid from the Worksheet. Post the poster on the wall or white board. Put the pyramid on the poster. Use the ruler to draw a new and larger pyramid by using the pyramid together. Ask students if they need to have a door for their pyramid. (Facilitate a brief discussion of why a door is needed.) If so, draw a door. Take the poster down and cut the pyramid model out. Cut the door but leaving one side intact. Fold and paste tabs together to make a 3-D pyramid model. Note: Students will apply the multiplication concept to learn how to enlarge the diagram. Make sure they will save areas for gluing sides together. Divide students in small groups. Each group will make a pyramid
	together out of the poster board. (They will also discuss what they will store in the pyramid on the next day.)

Key Elements	Lesson 4 Procedures- Constructing Our Own Pyramids
	 Students discuss what pictures or colors to use to decorate their pyramids. Supervise and help students cut the diagram out of the poster. Decorate accordingly. Fold and glue the 3-D pyramids together.
Elaboration Activities allow students to apply concepts in contexts, and	What treasures should we put in there?The class discusses what treasure can be stored in their pyramids. Each student contributes one treasure.T: Now pyramids are built to hide treasure. What treasure would you like to
build on or extend understanding and skill.	hide in your pyramids? Discuss with your partners and then share with the class. Students discuss with group members. Once the group decides, each person finds or draw a picture of his/her treasure.
	 Literacy Activity: Use Worksheet 4b and lead students to talk about their pyramids and their experiences of making one. If necessary, model for the class to
	 Independently students write a description of their pyramids and the decorations on Worksheet 4b. Do peer editing for accuracy. Practice making oral presentations
Evaluation • Students assess their knowledge, skills and	Our Own Pyramid Using Worksheet 4c , each group will writes a description about themselves, their pyramids, and their treasures for classes in the future to see. The students put the fact sheets and treasures into their pyramids.
abilities. Activities permit evaluation of student development and lesson effectiveness.	Note: Secretly number the pyramids that students made, so students really must use their interviews in Lesson 5 (Interpersonal Communication Task) to determine which group created each pyramid.
	T: Now we will wait for Future Class to discover our pyramids. The teacher and students ceremoniously cover pyramids with a cloth or newspaper.

Teacher Reflections on Lesson 4 – Construction site		
What worked well?		
What did not work well?		
What would I do differently?		
Other comments or notes		

Pyramid Around the World

Lesson 5 of 5 Minutes	Duration: 30
Objectives	Can Do:
	 Get information about the shape and location of a pyramid by listening Ask and answer questions about the shape and treasure of a pyramid Present a pyramid my group and I built
Materials/ Resources	 Equipment to record students' conversations (cell phone, computer, tape- recorder, etc.)
	• Pyramid: Ppt. ss. 42-43
	• Worksheet 5a – Email from Dave, Where was I? (8)
	 Worksheet 5b – Which Picture shows the pyramids of Tikal?
	 Worksheet 5c – Interview
	 Worksheet 5d – Rubric for Oral Performance Task
	• Worksheet 5e – An Email to Dave (9)

Lesson 5 – Performance Assessment Tasks

Performance Assessment

Interpretive Task

Interpretive Task: Find the Picture to match Dave's Email about Another Pyramid

Note: This is designed to be a listening task, but it can be easily converted to be a reading task. Use your discretion to make a decision about the skill area.

Dave has sent an email about a pyramid that he visited in another country, but he forgot to attach a picture, **Worksheet 5a**. The teacher has found some pictures about pyramids. Which picture on **Worksheet 5b** is like the one Dave visited?

Teacher reads the email from Dave (8)

Dear Class,

Guess where I am now? I am not in Egypt, and I am not in Mexico either. I am in Guatemala. Have you heard of Mayans? I visited the Pyramids of Tikal. There are many pyramids here! They were built by Mayans many years ago. Their shapes are different from other pyramids. They are in the rain forest, so people forgot about them for 800 hundred years. You should visit them someday.

Pyramid Around the World

Your friend,

Dave

Which picture shows the Pyramids of Tikal?





http://www.bugbog.com/images/galleries/guatemala_pictures/large-Guatemala-Pictures/Tikal-Guatemala.jpg

Pyramid Around the World

Cultural Note for Teachers: Peten, Guatemala- Mayan Pyramids of Tikal

Tikal was an important urban and ceremonial center for the Maya from about 300 to 900 A.D., and they built many monuments here, including five pyramidal temples. The tallest---Pyramid IV, topped by the Temple of the Two-Headed Serpent---is 213 feet high. After the Maya abandoned the site, these pyramids lay largely forgotten in the rainforest for nearly 800 years. European explorers re-discovered them with great excitement in the 1850s, leading to several major archaeological expeditions and digs. The area is now a UNESCO World Heritage site.

Interpersonal Task

Title: Which Pyramid did You Make and What Treasures are Inside?

Step 1: During the Pyramid Day and before the pyramids are unveiled, students walk around to ask each other questions about the pyramids they constructed and treasures they stored inside.

Use **Worksheet 5c** for interviews.

Step 2: Unveil the pyramids ceremoniously. Students use their notes to identify which pyramid is built by a certain group of students. They will keep the worksheet to use for the next task.

Worksheet 5d: Rubrics for assessment: The teacher will assess students on oral interpersonal communication.

Presentational Task

Title: This is our pyramid!

Based on the content of **Worksheet 4c**, students discuss how to make their presentations. Give them time to practice. For differentiation: Encourage students who are more advanced to present without using their notes. Students will make an oral presentation of the pyramid their groups have built and the treasures inside.

Give each group a letter or a name before they present their pyramid. After listening to each presentation and consulting the notes from their interviews, students use Worksheet 5e to record their identification of each pyramid. At the end they will compare how many pyramids that they have correctly identified.

Note: If desired and feasible, videotape students' presentations. This can serve as evidence of student learning, and it can also make into a CD or an internet link for parents and friends to view. Students may also use the video to recall their experiences for the next presentational task.

Use Worksheet 5d - rubric for Oral Performance Task

Pyramid Around the World

Interpersonal/Presentational Task

Title: : An email to Dave about my experiences (9)

Using **Worksheet 5e**, students write an email to Dave telling about their experiences while learning about pyramids.

Directions: In your email make sure that you:

- 1. Tell Dave who you are.
- 2. Tell him what you learned from this module. For example, tell him about
 - a. Two different pyramids that you have learned about. (Where they are located and whether or not you like them.)
 - b. What treasures from pyramids you have seen.
- 3. Tell him what kinds of pyramid you have found in your daily life.
- 4. Tell him if you like learning about pyramids. Would you like to visit a pyramid when you grow up?

Teacher Reflections on Lesson 5 – Assessment Task		
What worked well?		
What did not work well?		
What would I do differently?		
Other comments or notes		