

World Language-STEM MODULE COVERSHEET

Pyramid Around the World

世界各地的金字塔

Target Language: Chinese	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 teacher that their lessons on pyramids in Grade 3 have motivated him to explore them when he grew up. Now he is traveling around the world to visit pyramids. He has sent a picture of a pyramid to the teacher to show his appreciation. He invites the class to follow him in exploring different pyramids in the world and their influence on history, math, and today's life. Through communicating with Dave, they will see how ancient people's lifestyles and cultures are reflected in pyramids. They will also comprehend how pyramids are connected to math and how the pyramid concept can help us understand other relationships.	
Enduring Understanding: At the end of this module, students will understand: <ul style="list-style-type: none">• Ancient pyramids reflect both function and culture• Mathematics can help us create and understand pyramids• Pyramids have modern uses and functions	
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 week, we suggest the five lessons in this module could be taught during the period of three to five weeks. On the average, each lesson may be taught over a week, with 30 minutes classes three to five times per week. Lesson 1 – 什麼是金字塔? (Engagement stage for introduction) Lesson 2 – 不同國家的金字塔。 (Exploration stage for main events and practice) Lesson 3 – 塔裏的寶物。 (Explanation stage for main events and practice) Lesson 4 – 我們的金字塔。 (Elaboration stage for summary and review) Lesson 5 – 這是我們的金字塔。 (Evaluation stage for assessing student learning outcomes)	

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Standards Targeted	
5C – World Language Standards	5E – STEM Standards
<p>Communication</p> <ul style="list-style-type: none">• 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) <p>Cultures</p> <ul style="list-style-type: none">• 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. <p>Connections</p> <ul style="list-style-type: none">• Use math-related vocabulary and expressions to talk about pyramids (3.1.A) <p>Comparisons</p> <ul style="list-style-type: none">• Identify similarities and differences among pyramids from different cultures. (4.2) <p>Communities</p> <ul style="list-style-type: none">• Share information or enjoy one’s own treasure. (5.1)• Present and introduce the pyramids constructed.(5.2)	<p>Technology</p> <p>1.D.1 Construct a pyramid</p> <p>Mathematics G3.Geometric measurement</p> <p>8. Solve real world and mathematical problems involving perimeters of polygons.</p> <p>Social Studies Grade 3</p> <p>Standard 3.0 Geography</p> <p>Students will use geographic concepts and processes to understand location and its relationship to human activities.</p> <p>1. Identify natural/physical and human made features of places and regions.</p>

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Knowledge: Students will know...	Skills: Students can...
<p>Vocabulary (both linguistic and content areas)</p> <p>What is a pyramid?</p> <p>What math can you find in a pyramid?</p> <ul style="list-style-type: none"> • 電子信 讀 寫 接收 寄 照片 • 金字塔 頂點 面 邊 交接點 底 • 形 三角形 四角形 長方形 多角形 • 時間 古/老 現代/新 • 在哪裡可以找到呢? • 旅行 地方 世界 埃及 墨西哥 蘇丹 瓜地馬拉 瑪雅 <p>為什麼建金字塔 建 紀念 統治者 法老/國王</p> <p>金字塔裏有什麼? 寶物</p>	<p>(Can do statement)</p> <p>Oral Language: <i>I can</i></p> <ul style="list-style-type: none"> • 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 <p>Literacy: <i>I can</i></p> <ul style="list-style-type: none"> • 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. <p>STEM and Other Subject Areas (Including Cultures): <i>I can</i></p> <ul style="list-style-type: none"> • 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. • name some cultural objects in 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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<p>藏 裏面 壁畫 珠寶 金 價值</p> <p>什麼是一個金字塔看起來像什麼：</p> <p>高度/高/矮 大/小 漂亮 珍貴 重要的</p> <p>金字塔是用什麼蓋成的：</p> <p>石頭 土</p> <p>Content compatible language :</p> <p>有 我能 是寶物 ... 很多年以前 建的 我去 因為 做成的 比... 高 又... 又.... 上/下</p>	
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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 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:
<http://www.google.com/earth/index.html>)
- **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 Treasures'
- **Worksheet 3e** – My Treasures

Lesson four:

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

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- **Worksheet 4c** – Our Pyramid

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?

金字塔是什麼？

Lesson 1 of 5 -金字塔是什麼？		Duration: 30 Minutes
<i>Objectives</i>	<p>I Can:</p> <p>Oral language:</p> <ul style="list-style-type: none">Identify and name the 金字塔，頂點，面，邊，交接點，底 <p>Literacy:</p> <ul style="list-style-type: none">Label: 金字塔，頂點，面，邊，交接點，底 <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none">Use math words such 金字塔，頂點，面，邊，交接點，底解釋什麼是金字塔。	
<i>Vocabulary and Expressions</i>	<p>Previously learned:</p> <p>折，疊，剪，打開，標明，大，小，你，您，老师，学生</p> <p>Content obligatory language:</p> <p>金字塔，頂點，面，邊，交接點，底，埃及 形狀，三角形，正方形，四方形， 它有三個面。它有六個邊。 它是一個正方形。它是一個三角形。它是一個四方形。 站在，照片</p> <p>Content compatible language :</p> <p>謝謝，喜歡，剪刀，膠帶，膠水，數學，知道</p>	
<i>Materials/ Resources</i>	<ul style="list-style-type: none">○ 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)	

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<p><i>Lesson Storyline and Core Text</i></p>	<p>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.</p> <p>Core Text: (Worksheet 1c) 這是一張照片和電子信。 大偉是個小學三年級的學生 大偉寄給我這張照片。 你能告訴他在哪裡？ 他的背後是什麼？ 是一個金字塔。 這裡有更多的照片。</p> <p>親愛的_____老師 我是大偉！ 我是你以前的學生。 現在我在埃及！ 我站在金字塔前。 這金字塔好大喔！ 我送你的這張照片 謝謝您在我在三年級的時候，介紹金字塔給我們。 我會繼續參觀其他的金字塔。 我可以繼續寄其他的金字塔照片。 金字塔只有一個底。它的底是多邊形 金字塔的底，可以有三角形，正方形，或長方形。 APEX是金字塔的頂點，讓我們來做一個金字塔。 我們將學什麼是頂點，邊，面，交接點和底。</p>
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<p>Key Elements</p>	<p>Lesson 1 Procedures --金字塔是什麼？</p>
<p><i>Engagement</i> ● <i>Object, event or question used to engage students.</i> ● <i>Connections facilitated between what</i></p>	<p>An email from Dave Teacher brings students a picture of a pyramid in Egypt that a former student, Dave, had emailed him/her. T: (Showing picture of Dave in Pyramid ppt s.2) 嗨，大家好！你看，我昨天收到一封電子信和一張照片。大偉是我以前的學生，他就像你現在一樣大的時候，我教他。 T: (Pyramid: Ppt ss.3-4) 誰能告訴他在哪裡？對了，他在埃及。他的背後是什麼？</p>

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Key Elements	Lesson 1 Procedures --金字塔是什麼？
<p><i>students know and can do</i></p>	<p>麼？是個金字塔還是個房子？是的，是金字塔。</p> <p>T: 我們來看看他寫什麼. Worksheet 1a – Dave’s email to teacher (1)</p> <p>T: (Reading the email)</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>大偉寫給他的三年級老師的电子信 來自：大偉 主題：從埃及來的祝福</p> <p>親愛的_____老師，</p> <p>您好嗎？您還記得我嗎？我是大偉。我是您以前三年級的學生，我們有好多好多的樂趣。當您在教我們世界上的金字塔時。我當時就告訴你，我長大後，我要去這些金字塔參觀。現在我在埃及！我站在金字塔前。這個金字塔好大好大！我寄給您的這張照片謝謝您。我會繼續參觀其他的金字塔。如果你要的話，當我去參觀其他的金字塔時，我可以寄給您更多的照片給您，。</p> <p>您的學生，</p> <p>大偉</p> </div> <p>Distribute Dave’s email to the class and allow students time to read in pairs or in small group.</p> <p>Teacher asks the students questions to check their comprehension.</p> <p>T: 同學們，你們希望收到更多大偉的電子信和照片嗎？</p> <p>Students respond.</p> <p>T: 好的，我們全班可以寫信給大偉問他關於他的旅行，並請他寄更多照片給我們。</p> <p>T: 在我們寫信給他之前，我們先來學學一些什麼是金字塔。</p> <p>Students respond.</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> ● <i>Objects and phenomena are explored.</i> ● <i>Hands-on activities, with guidance.</i> 	<p>What is a pyramid?</p> <p>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.</p> <p>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.) 這是金字塔嗎？</p> <p>T: 是的，這是個金字塔，因為它是立體的 (or whatever element you wish to</p>

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Key Elements	Lesson 1 Procedures --金字塔是什麼？
	<p>point out). 是的，這是個金字塔，因為它有_____.</p> <p>T: 金字塔只有一個底。它的底是多邊形</p> <p>T: 你看，三角形，四角形，正方形，長方形都是多角形 (Ppt ss. 8-13 shows examples of these <i>shape</i> and guides students to identify and practice.)</p> <p>T: 金字塔的底可以是三角形，正方形，或是長方形。</p> <p>T: (Ppt ss.14-15) 這是金字塔的頂點。</p> <p>T: 你們看，金字塔的面是什麼形狀? (Show different pyramids for students to observe.)</p> <p>Students respond.</p> <p>T: 金字塔的面是三角形。</p> <p>T: 這是金字塔的面。金字塔的面對面交接叫邊，邊和邊結合叫交接點。每一個金字塔都有好幾個交接點。</p> <p>Do a quick review of each part of a pyramid for closure.</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> • <i>Students explain their understanding of concepts and processes.</i> • <i>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</i> 	<p>Let's make a pyramid</p> <p>T: 今天我們要做自己的金字塔，但是我們先來複習我們所學的關於金字塔的字。</p> <p>Model how to write: 金字塔，頂點，面，邊，交接點，底</p> <p>Allow students some time to practice.</p> <p>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: 你要做三角形底，還是四角形底的金字塔？</p> <p>T: 首先，我們要知道什麼是底，找到底後請注明。(Another option would be to have them color it first, then label.) 請大家指出那一個是底。(Circulate to make sure all students are pointing to the base. This could be a problem for the triangle bases.) 現在再找出金字塔的面。面是什麼形狀？(Students respond.) 請標明所有的面。如果底是四方形的金字塔，它有幾個面？三角形底的金字塔，又有幾個面？</p> <p>T: 太好了！你們可以仔細地的用剪刀按照外圍的形狀剪下來。(Demonstrate and walk around to help, as needed.) 再把三角形旁邊多出來的部分折起來。(Demonstrate and monitor.) 現在把每個三角形的形狀折出來。(Demonstrate and monitor.) 現在用膠水把你的金字塔黏起來。(Demonstrate and monitor.)</p> <p>When finished, ask the students to show and say the parts of their pyramids, as a group and individually:</p> <p>T: 告訴我哪里是金字塔的底。</p>

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Key Elements	Lesson 1 Procedures --金字塔是什麼？
	<p>Ss: (Show the base) 這裡是底。 T: 這是什麼形狀的底？ Ss: 這是三角形/四方形的底(depending on the pattern they have chosen) T: 哪里是面？ Ss: (pointing) 這是面。 T: 你的金字塔有幾個面？ Ss: 有三個/四個(depending on the pattern they have chosen) T: 金字塔有幾個邊？ Ss: 它有六個/八個邊。(depending on the pattern they have chosen) T: 金字塔有多少個交接點？ Ss: 它有四個/五個交接點.(depending on the pattern they have chosen)</p> <p>Teacher models how to write a description about a pyramid by following the sentences on Ppt s.16. Students follow orally with the teacher.</p> <p>Students work on Worksheet 1c (Telling about my Pyramid) to describe the pyramids they have made. Teacher collects Worksheet 1c for assessment.</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> • <i>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</i> 	<p>Sing the pyramid song</p> <p>T: 現在，我們將要學一個金字塔的歌！(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.)</p> <p>三角形底的金字塔</p> <p>我做了一個金字塔，它有個三角形的底。 這裡一個面，那里一個面 一個，兩個，三個面 我有個三角形底的金字塔，它還有個高高在上的頂點。</p> <p>我做了一個金字塔，它有個三角形的底。 這裡有一個交接點，那裡有一個交接點。 一個，兩個，三個交接點。 這裡一個面，那里一個面 一個，兩個，三個面 我有一個三角形底的金字塔， 它有三個面和三個交接點， 它還有個高高在上的頂點。</p> <p>我做了一個金字塔，它有個三角形的底。 這裡有一個邊，那里有一個邊 一個，兩個，三個，四個，五個，六個邊</p>

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Key Elements	Lesson 1 Procedures --金字塔是什麼？
	<p>這裡有一個交接點，那裡有一個交接點。 一個，兩個，三個交接點。 這裡一個面，那里一個面 一個，兩個，三個面 我有一個三角形底的金字塔， 它有六個邊，三個面和三個交接點， 它還有個高高在上的頂點。</p> <p>四角形底的金字塔</p> <p>我做了一個金字塔，它有個四角形的底。 這裡一個面，那里一個面 一個，兩個，三個，四個面 我有一個四角形底的金字塔，它還有個高高在上的頂點。</p> <p>我做了一個金字塔，它有個三角形的底。 這裡有一個交接點，那裡有一個交接點。 一個，兩個，三個交接點。 這裡一個面，那里一個面 一個，兩個，三個，四個面 我有一個三角形底的金字塔， 它有四個面和四個交接點， 它還有個高高在上的頂點。</p> <p>我做了一個金字塔，它有個四角形的底。 這裡有一個邊，那里有一個邊 一個，兩個，三個，四個，五個，六個，七個，八個邊 這裡有一個交接點，那裡有一個交接點。 一個，兩個，三個交接點。 這裡一個面，那里一個面 一個，兩個，三個，四個面 我有一個四角形底的金字塔， 它有八個邊，四個面和四個交接點， 它還有個高高在上的頂點。</p> <p>Students may practice by shape. The class can join in chorus.</p> <p>Literacy practice: Remind students today they can write an email to Dave, Worksheet 1d.</p>

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Key Elements	Lesson 1 Procedures --金字塔是什麼？
	<p>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.</p> <p>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.</p>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> • <i>Students assess their knowledge, skills and abilities.</i> 	<p>Assessment:</p> <ol style="list-style-type: none"> 1. Presentational: In pairs or small groups, students describe their pyramids. 2. Presentational: In pairs or small groups, students sing the pyramid song. 3. Students use Worksheet 1c to describe a pyramid in writing. 4. 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- <i>What is a Pyramid?</i>	
<i>What worked well?</i>	
<i>What did not work well?</i>	
<i>What would I do differently?</i>	
<i>Other comments or notes</i>	

World Language-STEM MODULE COVERSHEET

Pyramid Around the World

世界各地的金字塔

Lesson 2 – Pyramids in different countries

不同國家的金字塔

Lesson 2 of 5 – <i>Pyramids in different countries</i>		Duration: 30 Minutes
<i>Objectives</i>	<p>I can:</p> <p>Oral language:</p> <ul style="list-style-type: none"> • 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. <p>Literacy:</p> <ul style="list-style-type: none"> • Read and write short labels or short text related to pyramids. • Read or write about how certain pyramids are the same as or different from each other. <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none"> ○ Show the location of some pyramids using Google Earth. 	
<i>Vocabulary and Expressions</i>	<p>Content obligatory vocabulary 墨西哥，埃及，紀念，國王，法老王 長度，高，短，旅行，太陽，月亮</p> <p>Content compatible vocabulary 我去看。。。， 它們都有。。。， 因為。。。。</p> <p>Comparative and/or superlative expressions: 比較高。。。。</p>	
<i>Materials/ Resources</i>	<ul style="list-style-type: none"> ○ Map or Globe ○ Google earth (teacher will need to download from this site): http://www.google.com/earth/index.html) ○ 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) 	
<i>Lesson Storyline and Core Text</i>	<p>Lesson Storyline Students hear from Dave again. He is now at Giza, Egypt. He describes the Pyramid of Khufu and sends a picture of the pyramid. His next stop will be in Mexico, where he will visit the Pyramid of the Sun. In addition to learning some</p>	

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世界各地的金字塔

	<p>cultural information about these pyramids, students compare them.</p> <p>Core Text:</p> <p>我很高興，你和我一起旅行。 金字塔有四千多年了。</p> <p>我昨天收到一封電子郵件和照片。 埃及的金字塔有什麼？ 金字塔，它是用來紀念國王/法老的。</p> <p>我去看兩個在墨西哥的金字塔。 我發現了兩個金字塔，太陽和月亮金字塔！ 太陽金字塔和月亮金字塔 這金字塔是用來表示對太陽和月亮的崇拜。 這金字塔也是用來表示對國王的紀念。</p> <p>它們有什麼樣的底？ 它們各有幾個面？ 它有各有幾個邊？ 這金字塔叫什麼名字？ 這是哪裡？你能找到墨西哥嗎？</p>
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Key Elements	Lesson 2 Procedures– Pyramids in different countries
<p><i>Engagement</i></p> <ul style="list-style-type: none"> • <i>Connections facilitated between what students know and can do</i> 	<p>Sing the Pyramid song</p> <p>Students hold their pyramids and sing the Pyramid song together. Lead a review of the structure of a pyramid.</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> • <i>Objects and phenomena are explored.</i> • <i>Hands-on activities, with guidance.</i> 	<p>Another email from Dave</p> <p>T: (Show students another email and pictures sent by Dave) 你們看，大偉又來了一封信，還有照片。 T: 我們大家來看看他寫什麼？</p>

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Pyramid Around the World 世界各地的金字塔

Key Elements	Lesson 2 Procedures– Pyramids in different countries
	<div data-bbox="456 363 927 678"></div> <div data-bbox="456 682 990 714"><p>Egypt: Pyramid of Khufu (with a square base)</p></div> <div data-bbox="602 766 1357 1507" style="border: 1px solid black; padding: 10px;"><p>來自：大偉</p><p>主題：埃及胡夫的金字塔，</p><p>同學們，你們好</p><p>我很高興，你們決定和我一起去旅行，我要去看世界各地的金字塔。</p><p>現在我在埃及的開羅。照片裏的大金字塔。它是古代世界七大奇觀之一。它有一個方形的基地。它也是在世界最高的金字塔。它是四千年前建造的，主要是紀念法老胡夫的金字塔。</p><p>我希望你喜歡我寄給你們的照片。</p><p>我的下一站是墨西哥。我聽說那兒也有許多金字塔！</p><p>你的朋友，</p><p>大偉</p></div> <div data-bbox="456 1549 1393 1682"><p>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.</p></div> <div data-bbox="456 1724 943 1755"><p>T: 我們大家一起來看看大偉寫些什麼。</p></div> <div data-bbox="456 1797 1393 1864"><p>Note to teacher: Read the email again; break it down into smaller chunks. Ask comprehension questions and make sure students understand the content of</p></div>

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Pyramid Around the World

世界各地的金字塔

Key Elements	Lesson 2 Procedures– Pyramids in different countries								
	<p>the email. For example: T: 大偉在那裡? (Egypt, Giza or Caro, Pyramid) T: 這金字塔的名字是什麼? T: 這金字塔有什麼特別? (Square-based; for Pharaoh Khufu; more than 4000 years ago; the tallest pyramid in the world). T: 大偉的下一站是哪裡? Students respond.</p> <p>Show students video of Egyptian pyramids if time allows. http://bit.ly/TKcTLT</p> <p>T: 現在，讓我們來學一個金字塔歌謠: Worksheet 2b, Part I</p> <table border="1" data-bbox="558 800 1349 1255"> <tr> <td data-bbox="558 800 933 898">我去看看在埃及的金字塔，在埃及的金字塔。</td> <td data-bbox="933 800 1349 898"><i>Holding up both hands to make a pyramid shape.</i></td> </tr> <tr> <td data-bbox="558 898 933 1010">我去看看金字塔，尊敬的國王啊。</td> <td data-bbox="933 898 1349 1010"><i>Put both hands over the head, making it the shape of a crown for a pharaoh.</i></td> </tr> <tr> <td data-bbox="558 1010 933 1150">金字塔在那裡？我去哪裡找金字塔？</td> <td data-bbox="933 1010 1349 1150"><i>Put one hand over the eyes as if looking for something, turning left and right.</i></td> </tr> <tr> <td data-bbox="558 1150 933 1255">我發現了一個紀念法老胡夫金字塔！</td> <td data-bbox="933 1150 1349 1255"><i>Holding up both hands to make a pyramid shape.</i></td> </tr> </table> <p>Divide students into pairs or small groups to practice the chant. Ask volunteer pairs or groups to perform.</p> <p>Before students leave, lead students in singing the pyramid song.</p>	我去看看在埃及的金字塔，在埃及的金字塔。	<i>Holding up both hands to make a pyramid shape.</i>	我去看看金字塔，尊敬的國王啊。	<i>Put both hands over the head, making it the shape of a crown for a pharaoh.</i>	金字塔在那裡？我去哪裡找金字塔？	<i>Put one hand over the eyes as if looking for something, turning left and right.</i>	我發現了一個紀念法老胡夫金字塔！	<i>Holding up both hands to make a pyramid shape.</i>
我去看看在埃及的金字塔，在埃及的金字塔。	<i>Holding up both hands to make a pyramid shape.</i>								
我去看看金字塔，尊敬的國王啊。	<i>Put both hands over the head, making it the shape of a crown for a pharaoh.</i>								
金字塔在那裡？我去哪裡找金字塔？	<i>Put one hand over the eyes as if looking for something, turning left and right.</i>								
我發現了一個紀念法老胡夫金字塔！	<i>Holding up both hands to make a pyramid shape.</i>								
<p><i>Explanation</i></p> <ul style="list-style-type: none"> • <i>Students explain their understanding of concepts and processes.</i> • <i>New concepts and skills are introduced as conceptual clarity and</i> 	<p>Dave’s Journey in Mexico</p> <p>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.</p> <p>Read more: http://bit.ly/11BZEk and</p>								

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Pyramid Around the World

世界各地的金字塔

Key Elements	Lesson 2 Procedures– Pyramids in different countries
<i>cohesion are sought.</i>	<p>http://www.sacred-destinations.com/mexico/teotihuacan http://www.history.com/topics/pyramids-in-latin-america http://bit.ly/YB4Kya</p> <p>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.</p> <p>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.</p> <p>Use a world map, locate Mexico.</p> <p>T: Read Dave's email (3), Worksheet 2c, show pictures to students, Ppt ss. 22-26.</p> <div data-bbox="544 898 1349 1339" style="border: 1px solid black; padding: 10px;"><p>親愛的同學們，</p><p>你喜歡胡夫金字塔嗎？它是不是很大？猜猜我現在在哪裡。</p><p>我現在在墨西哥。在墨西哥有幾個著名的金字塔。這是兩個著名的特奧蒂瓦坎的照片。一個是太陽金字塔，另一個是月亮金字塔。他們是非常古老的。他們的底都是方形的，非常的大。</p><p>我希望你們喜歡我寄的照片。</p><p>你的朋友，</p><p>大偉</p></div> <p>Distribute Dave's email to the class and allow students time to read in pairs or in small groups. Repeat the process from yesterday for teaching the pyramid in Egypt. Sample questions may include the following:</p> <p>T：它是什麼樣的底？ T：它有多少面？ T：它有多少邊？ T：它叫什麼名字？ T：它在哪裡？你能找到墨西哥嗎？</p> <p>Have students sing the Pyramid Chant to apply what they have learned about</p>

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Pyramid Around the World 世界各地的金字塔

Key Elements	Lesson 2 Procedures– Pyramids in different countries												
	<p>the pyramids. Pyramid Chan, Worksheet 2b, Part II</p> <table border="1" data-bbox="509 506 1338 1251"> <tr> <td data-bbox="509 506 906 590">我去看一些在墨西哥的金字塔，在墨西哥的金字塔</td> <td data-bbox="906 506 1338 590">Hold up both hands to make a pyramid shape.</td> </tr> <tr> <td data-bbox="509 590 906 674">我去看金字塔，它是用來紀念他們的國王。</td> <td data-bbox="906 590 1338 674">Put both hands over the head, making it the shape of a crown for a king.</td> </tr> <tr> <td data-bbox="509 674 906 758">金字塔在那裡？我去哪裡找金字塔？</td> <td data-bbox="906 674 1338 758">Put one hand over the eyes as if looking for something, turning left and right.</td> </tr> <tr> <td data-bbox="509 758 906 842">我發現了一個紀念太陽的金字塔。</td> <td data-bbox="906 758 1338 842">Put both hands over the head, making the shape of the sun.</td> </tr> <tr> <td data-bbox="509 842 906 926">我發現了一個紀念月亮的金字塔。</td> <td data-bbox="906 842 1338 926">Put both hands over the head, making the shape of the moon.</td> </tr> <tr> <td data-bbox="509 926 906 1010">他們紀念的太陽，月亮，和他們的國王！</td> <td data-bbox="906 926 1338 1010">Put both hands over the head, making the shape of the sun, the moon, and a crown (as each word is chanted).</td> </tr> </table>	我去看一些在墨西哥的金字塔，在墨西哥的金字塔	Hold up both hands to make a pyramid shape.	我去看金字塔，它是用來紀念他們的國王。	Put both hands over the head, making it the shape of a crown for a king.	金字塔在那裡？我去哪裡找金字塔？	Put one hand over the eyes as if looking for something, turning left and right.	我發現了一個紀念太陽的金字塔。	Put both hands over the head, making the shape of the sun.	我發現了一個紀念月亮的金字塔。	Put both hands over the head, making the shape of the moon.	他們紀念的太陽，月亮，和他們的國王！	Put both hands over the head, making the shape of the sun, the moon, and a crown (as each word is chanted).
我去看一些在墨西哥的金字塔，在墨西哥的金字塔	Hold up both hands to make a pyramid shape.												
我去看金字塔，它是用來紀念他們的國王。	Put both hands over the head, making it the shape of a crown for a king.												
金字塔在那裡？我去哪裡找金字塔？	Put one hand over the eyes as if looking for something, turning left and right.												
我發現了一個紀念太陽的金字塔。	Put both hands over the head, making the shape of the sun.												
我發現了一個紀念月亮的金字塔。	Put both hands over the head, making the shape of the moon.												
他們紀念的太陽，月亮，和他們的國王！	Put both hands over the head, making the shape of the sun, the moon, and a crown (as each word is chanted).												
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> • <i>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</i> 	<p>Literacy development</p> <p>1. Compare pyramids in Egypt and Mexico</p> <p>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.</p> <p style="padding-left: 40px;">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</p> <p>b. After comparison, students work on Worksheet 2f</p> <p>c. Gallery Walk: Each group posts their Venn diagram on the wall.</p>												

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Pyramid Around the World

世界各地的金字塔

Key Elements	Lesson 2 Procedures– Pyramids in different countries
	<p>Walk around to see what each group wrote and ensure accuracy.</p> <p>2. Writing an email to Dave</p> <p>T: <i>Now, Class. Dave has written to us. What would you like to write to him?</i></p> <p>Use Language Experience Approach: Invite students to express what they want to say/write to Dave. Guide students to focus on the topic of pyramids and the two countries he has visited. As students say something, recast in correct but simple language, if necessary, and write on the board for students to copy once the email is done. For example, Worksheet 2g</p> <div data-bbox="581 762 1338 1696" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p>來自: _____(name) 收信人: 大偉 日期: _____ 主題: _____ (謝謝和金字塔)</p> <p>親愛的_____</p> <p>_____ (謝謝) 你的_____ (電子信) 和_____ (照片). 我們很 _____ (喜歡) 在 _____ (埃及) 的 _____ (大金字塔). 他非常 _____ (大/高). 它是古代世界_____ (七) 大奇觀之一. 它是_____ (紀念) 法老胡夫金字塔.</p> <p>我們也喜歡在 _____ (墨西哥) 的 _____ (太陽金字塔) 和 _____ (月亮金字塔). 它們都很 _____ (大) 很 _____ (高). 金字塔是用來 _____ (紀念) _____ (太陽), _____ (月亮), 和他們的 _____ (國王).</p> <p>這些金字塔都有 _____ (頂點), _____, _____, and _____ (邊, 面, 和 交接點). 它們也都有一個 _____ (四方形) 的底. _____ (謝謝) 你的 _____ (照片). 你下一站是哪裡呢?</p> <p>你的朋友, _____ 老師的班級</p> </div> <p>Sing the pyramid song or chant.</p>
<p>Evaluation</p> <ul style="list-style-type: none"> • Students 	<p>Assessment:</p> <ol style="list-style-type: none"> Using their answers on Worksheet 2f, students make oral

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Key Elements	Lesson 2 Procedures– Pyramids in different countries
<i>assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</i>	<p>presentations about their findings. (Make sure to give them some time to prepare what they want to present.)</p> <p>2. Distribute a blank Worksheet 2g for students to write their individual emails to Dave as part of assessment. Collect all the paper when finished.</p>

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

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世界各地的金字塔

Lesson 3 – Treasure Inside!

Title in TL

Lesson 3 of 5 – <i>Treasure Inside</i>		Duration: 30 Minutes
<i>Objectives</i>	<p>I Can:</p> <p>Oral language:</p> <ul style="list-style-type: none"> ○ Identify and name treasures from a group of objects. ○ Tell what I can see on a mural inside of the pyramid. <p>Literacy:</p> <ul style="list-style-type: none"> ○ Read and write about a mural inside a pyramid. <p>STEM and Other Subject Areas (Including Cultures):</p> <ul style="list-style-type: none"> ○ Talk about what can be found in a pyramid, i.e. treasure, murals...etc. 	
<i>Vocabulary and Expressions</i>	<p>Content obligatory language 隱藏，寶物，金，紀念，裡面，壁畫</p> <p>Content compatible language 我可以看到..... 是寶物。 他們生活在很多年前。</p>	
<i>Materials/ Resources</i>	<ul style="list-style-type: none"> ○ 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 Treasures’ ○ Worksheet 3e – My Treasures 	
<i>Lesson Storyline and Core Text</i>	<p>Lesson Storyline: Dave sent another email and some pictures to the class. He had visited a museum while he was traveling. He saw the King Tut exhibit. From his email, students learn what kinds of treasures were stored inside a pyramid. By extension, students learn the meaning of treasure, that is, treasure may be different to different people because what they value may be different. Students will talk about what their own treasures are.</p> <p>Core Text: (Worksheet 3a) 非常謝謝你的電子信和照片。 你做的金字塔是真棒。</p>	

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	<p>我很喜歡讀你的電子信。 明天我要去博物館。 我會看到了很多的寶物。 圖坦卡蒙 是埃及的國王。 埃及人建造金字塔來紀念他。 在金字塔內，有壁畫和黃金。 它們都是重要的珍寶。</p> <p>這是一幅壁畫。 它在金字塔里面。 我可以看到（人）的壁畫。 他們生活在很多年前。 這幅壁畫是寶物。 你有財寶嗎？ 你的寶貝和我的寶貝一樣嗎？</p>
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Key Elements	Lesson 3 Procedures — <i>Treasure Inside</i>
<p>Engagement</p> <ul style="list-style-type: none"> • <i>Object, event or question used to engage students.</i> • <i>Connections facilitated between what students know and can do</i> 	<p>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,</p> <p>Student A: 這一個金字塔有什麼樣的底？ 它有幾個面？ 它有幾個邊？ 這金字塔叫什麼名字？ 在哪裡？你能找到墨西哥嗎？</p> <p>Student B: Students ask each other's Venn diagram's results</p> <p>Worksheet 3a, Email from Dave (6) - Thanks students for their emails and comments on their pyramids.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>來自：大偉 主題：我去了博物館 致： _____ 親愛的同學，</p> </div>

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Pyramid Around the World

世界各地的金字塔

Key Elements	Lesson 3 Procedures — <i>Treasure Inside</i>
	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p>非常謝謝你的電子信和照片。你的金字塔是真棒。我很喜歡讀你們的電子信。我看得出來你們學到了很多關於各地金字塔。我明天去博物館。回來後我會告訴你我看到什麼金字塔。</p> <p>你的朋友，</p> <p>大偉</p> </div> <p>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.</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> • <i>Objects and phenomena are explored.</i> • <i>Hands-on activities, with guidance.</i> 	<p>King Tut – The Golden King</p> <p>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</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>來自：大偉</p> <p>日期：_____（月/日/年，時間）</p> <p>主題：我去了博物館</p> <p>致：_____</p> <p>親愛的同學，</p> <p>我希望你們喜歡我寄的照片。今天我去一個博物館，在那裡我看到了很多的寶物。他們從國王圖坦卡蒙墓的珍品。</p> <p>圖坦卡蒙是古埃及法老王。埃及人建造金字塔來紀念他。在金字塔內的壁畫和黃金都是寶物。人們稱他為金王。</p> <p>這裡是國王圖坦卡蒙的寶藏，希望大家喜歡金字塔的照片。</p> <p>你的朋友，</p> <p>大偉</p> </div> <p>Show Ppt. ss. 28-30 and video or additional pictures from King Tut’s tomb. Ask comprehension questions.</p> <p>http://www.kingtut.org/</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> • <i>Students</i> 	<p>What is a Mural?</p> <p>Further explain treasure by showing Ppt ss. 30-32 and also intermittently</p>

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Key Elements	Lesson 3 Procedures -- <i>Treasure Inside</i>
<p><i>explain their understanding of concepts and processes.</i></p> <ul style="list-style-type: none"> • <i>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</i> 	<p>modeling realia examples of personal treasure.</p> <p>T: 寶藏就是對有些人來說非常珍貴的東西。</p> <p>T: 對於圖坦卡蒙王，黃金是他的寶藏。壁畫是寶物。 Ppt. ss. 33-34</p> <p>T: 對我們來說金字塔的黃金和壁畫是寶藏嗎？</p> <p>Students respond.</p> <p>T: 為什麼使他們的寶物？是因為他們是昂貴的嗎？或者是因為他們是古物？</p> <p>T: (Show the mural inside a pyramid) 你看看這些金字塔裏的壁畫，你看到什麼？</p> <p>S: 人 (What are they doing?), 還有。。。。</p> <p>T: 是的，還有埃及人，他們住在很久很久以前</p> <p>T: 很久以前，人們沒有照相機，他們把他們的生活畫在牆上，壁畫是很久以前埃及人的生活。現在這些壁畫是世界的寶物。</p> <p>Talk about gold, jewelry, statues, and other artifacts in similar ways.</p> <p>If time allows, Also shows students Mayan murals and see the different drawing techniques. Ppt. s. 35</p> <p>Students read and complete Worksheet 3c, the Pyramid Mural Sheet, with the teacher.</p> <p>T: 為什麼金字塔是世界的寶物？</p> <p>T: 我們該如何對待我們的寶物？我們應該珍惜它們，還是丟棄他們？你覺得我們是不是改保護它們？ (<i>Gesturing to express both concepts.</i>)</p> <p>Students respond.</p> <p>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.</p>

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Key Elements	Lesson 3 Procedures -- <i>Treasure Inside</i>
	 <p>Meroe, Sudan: The Nubian Pyramids</p> <p>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 years---an Italian explorer smashed the tops off many of them in the 19th century, apparently seeking treasure---they remain a remarkable sight.</p> <p>Read more: http://www.smithsonianmag.com/history-archaeology/Ancient-Pyramids-Around-the-World.html#ixzz2DelyjQ7T Follow us: @SmithsonianMag on Twitter</p> <p>T: 讓我們來看看在這些在非洲蘇丹的金字塔。(Locate Sudan in the world map.) T: 這些金字塔缺少什麼? S: 這些金字塔的沒有了_____。 T: 這些金字塔的沒有了頂。人們正在尋找寶藏時候把頂弄壞了。我們該怎樣對待金字塔? Teacher guide student discuss “Why is it important to protect Pyramids?” Students respond. (保護，重要，很久以前，丟掉.)</p> <p>Note: Lead students to talk about what is or is not a treasure. T: 我們每個人都有寶物。對我來說，從大偉的信到我的寶物。因為大偉是我很久以前的學生。他還記得我。所以他的電子信是我的寶物。(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.) T: 你的寶物是什麼？你的寶物和我的寶物一樣嗎？ Students respond.</p>

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Key Elements	Lesson 3 Procedures — <i>Treasure Inside</i>
	<p>T: 今晚回家，我要你們找找自己的寶物。你可以把它畫在紙上，或帶圖片到學校，或是你也可以畫些你們想像的寶物。明天我們大家將分享看看我們的每個人的寶物是什麼！</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> • <i>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</i> 	<p>Show and Tell</p> <p>Students show and tell what their treasures are and why these things are treasures 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.</p> <p>Lead students in a Pyramid Treasure Chant: Worksheet 3e</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>我去看看在埃及的金字塔，在埃及的金字塔。 我去看看在埃及的金字塔，尊敬的國王啊。 金字塔在那裡？我去哪裡找金字塔？ 我發現了一個紀念法老胡夫金字塔！</p> </div> <p>Model first, then turn to students and have students do the Round-Robins until each student has shown his/her treasure.</p> <p><i>Whole class:</i></p> <p>我回家，我回到我的家去找我的寶物 我回家，我回到我的家去找我的寶物 寶物在那裡？我去哪裡找我的寶物？</p> <p><i>Student 1:</i> 我找到…… 我找到…… (<i>repeat with each treasure</i>) 這些是我的寶物 Turns to next student 你的寶物是什麼？什麼事你的寶物？ 給我看看你的寶物。</p> <p>Using LEA approach and Worksheet 3c, model for students to complete the worksheet. Use peer editing and have students do self-correction. Collect the worksheets and return them to students the following day.</p>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> • <i>Students assess their knowledge, skills and</i> 	<p>Start with the Pyramid Treasure Chant.</p> <p>Return students’ worksheet and ask them to practice.</p> <p>Assessment:</p> <ol style="list-style-type: none"> 1. Distribute Worksheet 3d for students to complete. In pairs and small

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<i>Key Elements</i>	Lesson 3 Procedures -- <i>Treasure Inside</i>
<i>abilities. Activities permit evaluation of student development and lesson effectiveness.</i>	<p>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.)</p> <p>2. Use Worksheet 3e: My Treasure as assessment for students to write about their own treasure.</p>

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

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Lesson 4 – Constructing Our Own Pyramids

Lesson 4 of 5 – <i>Constructing Our Own Pyramids</i>		Duration: 30 Minutes
<i>Objectives</i>	<p>I Can:</p> <p>Oral language:</p> <ul style="list-style-type: none"> ○ Ask and answer questions about how to construct a 3-D pyramid. <p>Literacy:</p> <ul style="list-style-type: none"> ○ Write a brief description of my pyramid using new vocabulary words about pyramids. <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none"> ○ Identify the use of pyramids in modern buildings ○ Create a large 3D pyramid 	
<i>Vocabulary and Expressions</i>	<p>Content obligatory vocabulary <i>tape, old/ancient,</i></p> <p>Content compatible vocabulary</p> <p>Decorate/decoration (eg. Color words) ... is made of ... It has... It was built to...</p>	
<i>Materials/ Resources</i>	<ul style="list-style-type: none"> ○ 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 	
<i>Lesson Storyline and Core Text</i>	<p>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.</p> <p>Core Text</p> <p><i>People still build pyramids today.</i> <i>This is a food pyramid.</i> <i>Do we eat more of the food in the base or those in the top?</i> <i>The higher it is, the less it is.</i></p>	

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Key Elements	Lesson 4 Procedures– <i>Constructing Our Own Pyramids</i>
<p><i>Engagement</i></p> <ul style="list-style-type: none"> • <i>Object, event or question used to engage students.</i> • <i>Connections facilitated between what students know and can do</i> 	<p>What Have We Learned So Far?</p> <p>Divide students into small group.</p> <p>Using Worksheet 4a, each group works on the following topics:</p> <ol style="list-style-type: none"> 金字塔有什么特别？ 哪裡有金字塔？ 什麼是寶物？ 金字塔裏有那些寶物？ 那些事你的寶物？ <p>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.</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> • <i>Objects and phenomena are explored.</i> • <i>Hands-on activities, with guidance.</i> 	<p>Can we find modern pyramids in our lives?</p> <p>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.</p> <p>T: 同學們，金字塔古老嗎？ Ss: 是 T: 你知道人們還在建金字塔嗎？ Students respond. T: 我們來看看現在的金字塔。 . Ppt. ss. 37-38 More resource websites: http://www.trendhunter.com/slideshow/modern-pyramid-architecture http://www.classbrain.com/artread/publish/article_31.shtml</p> <p>T: 看看我們四周，你可以找到金字塔形的東西嗎 Students respond. Ppt. ss. 39-40 T: (Show a picture of Food Pyramid.) 誰看過這個圖形？ Students respond. T: 這是我們每天該吃多少食物的金字塔表。 誰能告訴我這叫什麼？ S: 食物金字塔。 T: 食物金字塔告訴我們什麼？我們哪些食物該吃多些？金字塔頂端的食物，還是下面的食物。 Students respond.</p>

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Key Elements	Lesson 4 Procedures– <i>Constructing Our Own Pyramids</i>
	<p>T: 是的，較低的我們應該吃多些。金字塔告訴我們形狀或多或少相關的概念。</p> <p>T: 再來看運動的金字塔，它告訴我們日常生活。</p> <p>Show ppt. s. 41 and facilitate students to discuss what kind of activities to do more or less daily.</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> ● <i>Students explain their understanding of concepts and processes.</i> ● <i>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</i> 	<p>Let's make our own pyramids</p> <ul style="list-style-type: none"> ○ 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: <ul style="list-style-type: none"> ○ 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 new measurements. Make sure also draw tabs for gluing 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. <p>Note: Students will apply the multiplication concept to learn how to enlarge the diagram. Make sure they will save areas for gluing sides together.</p> <ul style="list-style-type: none"> ○ Procedures: <ul style="list-style-type: none"> ○ 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.)

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Key Elements	Lesson 4 Procedures– <i>Constructing Our Own Pyramids</i>
	<ul style="list-style-type: none"> ○ 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.
<p><i>Elaboration</i> Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</p>	<p>What treasures should we put in there? The class discusses what treasure can be stored in their pyramids. Each student contributes one treasure.</p> <p>T: <i>Now pyramids are built to hide treasure. What treasure would you like to hide in your pyramids? Discuss with your partners and then share with the class.</i></p> <p>Students discuss with group members. Once the group decides, each person finds or draw a picture of his/her treasure.</p> <p>Literacy Activity:</p> <ul style="list-style-type: none"> ○ Use Worksheet 4b and lead students to talk about their pyramids and their experiences of making one. If necessary, model for the class to read and write on the worksheet. ○ Independently students write a description of their pyramids and the decorations on Worksheet 4b. ○ Do peer editing for accuracy. ○ Practice making oral presentations
<p><i>Evaluation</i> ● Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</p>	<p>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.</p> <p>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.</p> <p>T: <i>Now we will wait for Future Class to discover our pyramids.</i></p> <p>The teacher and students ceremoniously cover pyramids with a cloth or newspaper.</p>

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

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Lesson 5 – Performance Assessment Tasks

Lesson 5 of 5 Minutes		Duration: 30
<i>Objectives</i>	Can Do: <ul style="list-style-type: none">• 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	
<i>Materials/ Resources</i>	<ul style="list-style-type: none">○ 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)	

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)

親愛的同學，

猜猜我現在在哪裡？我不是在埃及，我也不是在墨西哥。我在危地馬拉。你有沒有聽說過的瑪雅人？我參觀了蒂卡爾金字塔。這裡有很多金字塔！他們是由瑪雅人很多年前建造的。它們的形狀和從其他金字塔不太一樣，。他們是在熱帶雨林，有八百年。希望你有一天也來這兒看看。

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你的朋友，
大偉

Which picture shows the Pyramids of Tikal?



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

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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.

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Use **Worksheet 5d** - rubric for Oral Performance Task

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*

<i>What worked well?</i>	
<i>What did not work well?</i>	
<i>What would I do differently?</i>	
<i>Other comments or notes</i>	