Main Street, U. S. A.

Ancient Egypt

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Overview: Pyramids hold a fascination for students because of their size and what they contained. This activity makes the mathematical shape of a pyramid using math tools.

Grade Level: Grades 6. Could be adapted to grades above and below.

Time Needed: Twenty to thirty minutes.

Connections to Curriculum: Geography, math

Writing Standards See Assessment book

Social Studies—Geography—Benchmark 1—The student uses maps, graphic representations, tools and technologies to locate, use, and present information about people, places and environment.
Indicator 1—The student locates major physical and political features of Earth by memory: Egypt, Nile River.

Math—Geometry—Benchmark 1—The student recognizes geometric figures and compares their properties in a variety of situations.
Indicator 3—The student names and describes the solids: prisms, cylinders, cones, spheres and pyramids using terms faces, edges, vertices, and bases.

Social Studies—Civics and Government—Benchmark 5—The student understands various systems of government and how nations and international organizations interact.
Indicator 1—The student identifies basic features of systems of government, e.g., republic, democracy, monarchy, dictatorship, oligarchy, theocracy.

Social Studies—Geography—Benchmark 2—Places and Regions: The student analyzes the human and physical features that gives places and regions their distinctive character.
Benchmark 3—The student identifies and describes the location, landscape, climate and resources of early world civilizations.

Math—Geometry—Benchmark 1—The student recognizes geometric figures and compares their properties in a variety of situations.

Indicator 7—▲—The student classifies angles as right, obtuse, acute, or straight.

Benchmark 2—The student estimates, measures, and measurement formulas in a variety of situations.

Indicator 2—The student selects, explains, the selection of and uses measurement tools, units of measure, and level of precision appropriate for a given situation to find accurate rational number representations for length, weight, volume, temperature, time, perimeter, area, and angle measurements.

Objective:
The student will know that Ancient Egypt was governed by a monarchy i.e., king, queen.

The student will learn how to make a three dimensional pyramid.

The student will know where the most important pyramids are located.

The student will know for whom the Great Pyramid was built.

The student will know how long ago the Great Pyramid was built.

The student will identify the properties of a pyramid, i.e., face, edge, vertices, and base.

Materials Needed:
- □ Ruler
- □ 12 x 18 inch piece of tan construction paper
- □ Scissors
- □ White glue
- □ Protractor
- □ Khufu Pyramid—Giza Plateau, Cairo Photo from Ancient Egypt Photo Fun Activities by Edupress.
Procedures:

Preliminary information for students: What can you tell me about the pyramids of Ancient Egypt? (accept reasonable answers). Well, I am going to give you some important information about the pyramids. First, let’s mark on our map where the pyramids were located. The most important pyramids are on the west bank of the Nile River at Giza, near Cairo, Egypt.

Kings ruled the government known as a monarchy. A monarchy is ruled by a king or queen.

The Egyptian Pyramids are the oldest and the only surviving item of the Seven Wonders of the Ancient World. Of the ten pyramids at Giza, the first three were the ones considered the most important. The first one and the largest one was built for the Pharaoh Khufu. It was known as the Great Pyramid. Originally, it was 481 feet (147 meters). Over time, it has lost about 30 feet off the top. It covers an area of about 13 acres—about the size of the school playground. More than 2 million stone blocks were used to build the pyramid. Each stone weighed about 5,000 pounds or 2 ½ tons. Imagine that each stone weighed about the same as two Honda cars. If everyone in your class weighs an average of 75 pounds, how many people would it take to weigh as much as 2 ½ tons? (About 67 students.) It is thought that it took 100,000 laborers about 20 years to build the pyramid.

As I said earlier the pyramid was built for King Khufu. It was a place for him to be buried. Later thieves broke into the pyramid, stole all the gold, all of the funeral items, and even the mummy of the king.

Some scholars think the pyramid shape was an important religious statement for Egyptians. It may have symbolized the slanting rays of the sun. Others think the slope of the pyramid sides were thought to help the soul of the king climb to the sky and join the gods.

Even though the Great Pyramid was built 4,500 years ago, the Khufu Pyramid remains the largest man-made structure in the world.

Today, we are going to build a pyramid from paper. With these important steps, you will have a pyramid when you are finished.

1. Take the sheet of 12 x 18 inch paper and fold the paper diagonally.
2. While the paper is folded diagonally, take your ruler and make a line along the edge that is not part of the fold.
3. Cut off the edge, leaving a square 12 inch x 12 inch.
4. Fold on other diagonal.
5. With your ruler, make a line from corner to corner making a large “x” on the paper.
6. Mark the center with the letter ‘a’.
7. Measure a point three inches from the letter ‘a’ on each of the four lines. Make a point on the large “x”.
8. Connect the four points to make a square with a ruler.
9. On each side of the square, use your protractor and ruler to measure an acute 60 degree angle. Extend the lines of the angle to form a triangle.
10. On the two triangles that face each other, use your ruler to make a ½ inch flap (you will use this to glue to later). Cut out the pyramid.
11. Using the chart given, label an edge, a vertex, a base, and a face of the pyramid.
12. **At this point, depending on time, lines can be drawn to show the individual stone work of the pyramid. Using the ruler will help make these lines. Use the picture of the Khufu Pyramid to show these lines.**
13. Fold the four base (square forms the base). Crease the flaps upward. Glue the flaps to the sides.
14. You have finished your pyramid.

**Assessment:** In the student “Passport” have the students write about the following:
1. Describe how to make a pyramid.
2. Where were the most important pyramids located?
3. For whom was the Great Pyramid built?
4. How many years ago were the Great Pyramid built?
5. Name three things you could find in a pyramid.
6. On your cover, draw a representation of the pyramids where they are located.
7. If you have not made a key, you should do so now. Use your own pyramid symbol to explain.
8. Identify on the completed pyramid the face, edge, vertex, and base.
9. Explain in at least two sentences what is a monarchy and how it differs from our type of government.