

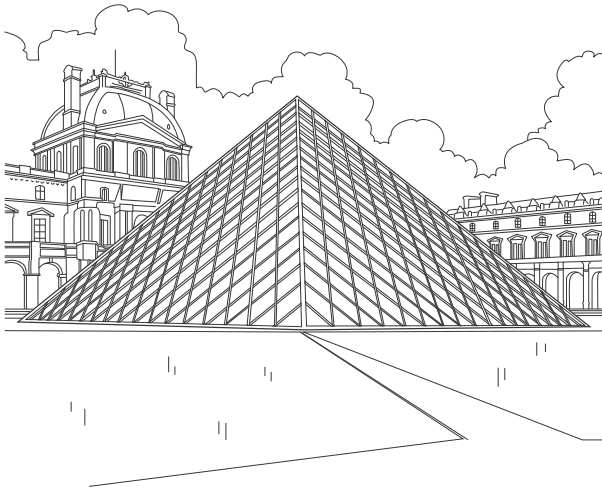
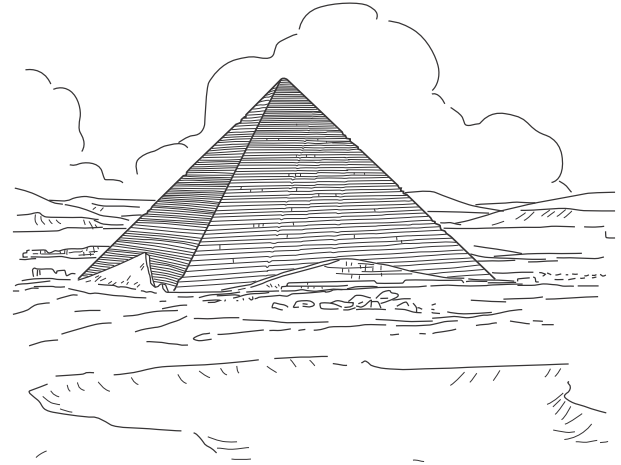
Name _____

Pick a Project

Project 16A

The Great Pyramid

When you think of tall buildings, you might imagine a skyscraper in a busy city. But the structure that was tallest in the world for thousands of years is a pyramid located in a desert in Egypt. At this site are three pyramids. The largest pyramid, known as the Great Pyramid, was about 480 feet tall when it was built around 2500 B.C. Part of the pyramid has worn away over time, making it about 450 feet tall today. That is still taller than the Statue of Liberty!



The Great Pyramid is made up of more than 2 million blocks of stone. Each stone weighs several tons, more than a car. No one is exactly sure how the pyramid was built. After all, there were no trucks or cranes back then. Several smaller pyramids surround the Great Pyramid.

Today, many buildings have a pyramid shape. Part of a museum in France known as the Louvre, for example, is a pyramid made out of glass. Some palaces, hotels, and arenas also have the same shape.

Your Project Build a Pyramid

Research what shapes make up the sides of a pyramid. Then build a pyramid out of cardboard or other materials. You might make separate pieces and connect them with tape or glue. Or you might trace the shapes and then fold them into place.

Choose the size and color of your pyramid. Give your pyramid a name and decide what would go inside it. Show your pyramid to the class and identify the shapes you used for the base and sides.

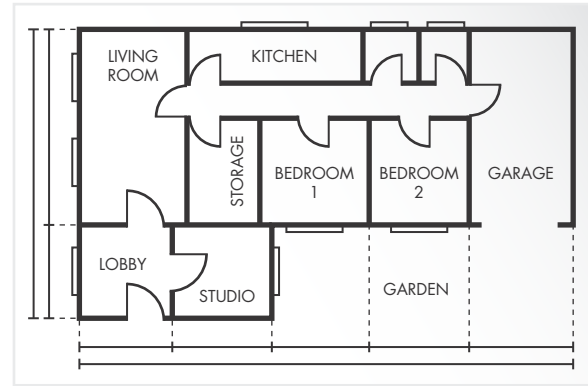
Name _____

Pick a Project

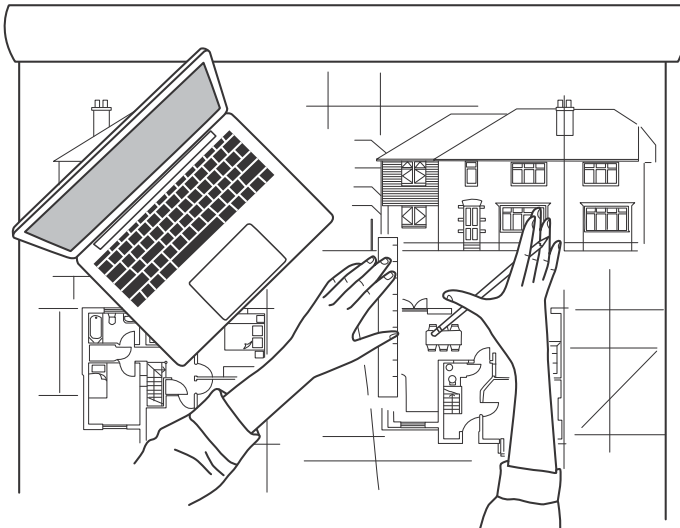
Project 16B

Blueprints

You have an idea for a new building. Before you can build it, you need to make a blueprint. A blueprint is a drawing that shows what a building will look like. It shows the size and shape of every room, and where the walls, windows, and doors will be. It also shows details, such as where the electrical outlets and sinks will go.



Blueprints get their name from the way they are made. A mixture of paper and chemicals make a picture that is white on a blue background. Today, some building designs are shown on other kinds of paper but they are usually still called blueprints.



The person who designs buildings and draws blueprints is an architect. Older blueprints were made by hand with tools such as rulers and protractors. Today, architects use computer programs to help them make the drawings.

Your Project Draw a Blueprint

Think of a small building you would like to build. For example, it could be a tree house, a playhouse, a family house, or an office. On graph paper, draw a blueprint for one floor of your building. Label each room in the blueprint and name its shape. Include at least three different quadrilaterals.

Present your blueprint to the class. Tell how your building will be used and why you chose the design you did. Then describe each room and its shape.

Name _____

Pick a Project

Project 16C

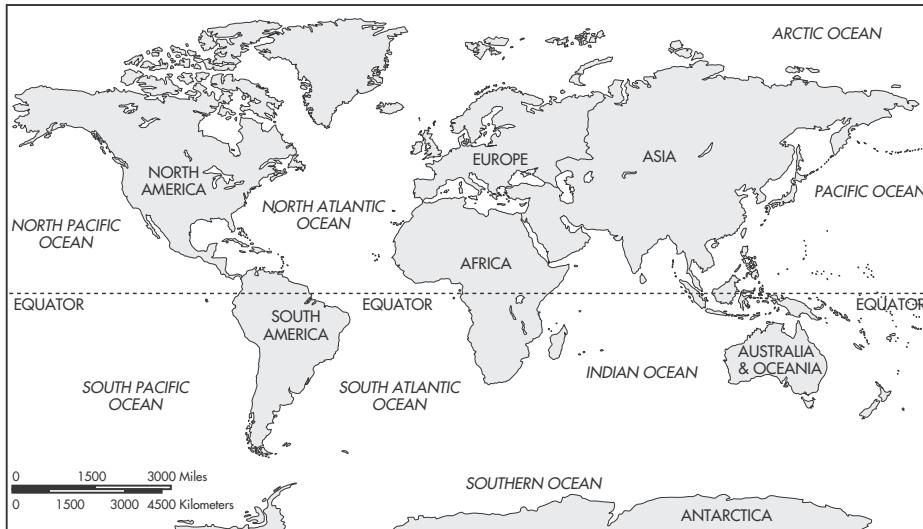
Maps

How can you find your way from one place to another? Use a map. Maps are diagrams of places on Earth. Maps can show man-made features such as cities, roads, and buildings. They can also show natural features, such as mountains, valleys, and waterways.

Some of the earliest maps known were made thousands of years ago. Some from ancient Greece were drawn on clay tablets. Others from China were made on silk fabric. These and other early maps often showed small areas. They showed pictures of what people had seen during their travels.



Today's maps are much more accurate. They use data gathered on Earth and from satellites in space. In this way, maps can show larger regions with more detail.



Your Project Hunt for Shapes in a Map

Maps of city streets can be very detailed. Work with an adult to find a map of a city. Look for ones that make the streets easy to see. Print, make a copy, or trace over the map. Then go on a hunt to find as many triangles and quadrilaterals as you can. Outline them with a crayon, marker, or highlighter. For example, a city block might be a rectangle. Look for as many as you can. Label each shape with its name.

Trade maps with a classmate and try to find any shapes your classmate did not mark on his or her map.

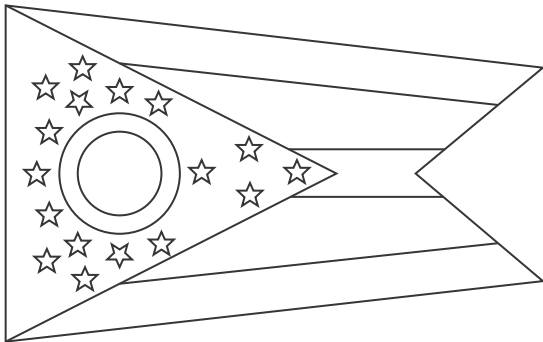
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Pick a Project

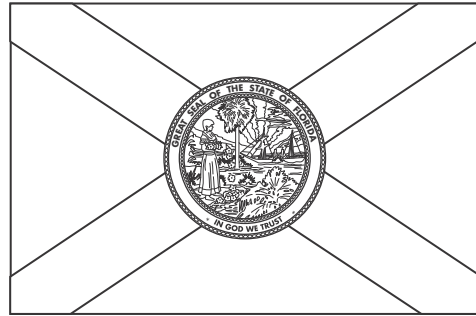
Project 16D

State Flags

Every U.S. state has its own flag. Each flag is designed to represent the special characteristics of its state. Most state flags are in the shape of a rectangle. Many state flags have other shapes such as triangles and circles on them.



The state flag of Ohio is the only state flag that is not in the shape of a rectangle. It is in the shape of a pennant. The triangle on the flag is blue and represents hills and valleys. The stripes represent roads and waterways. The group of 13 stars on the triangle represent the original 13 colonies and the group of 4 additional stars represent the fact that Ohio was the 17th state admitted to the union.



The state flag of Florida has two red bars that form an X, with the state seal at the center. The picture in the seal represents sunshine, flowers, palm trees, rivers, and lakes.



The background of the state flag of Washington is green and represents its unofficial nickname, "The Evergreen State." This is the only state flag that shows an image of an actual person, George Washington, who was the first president of the United States.

Your Project Design a Flag

Imagine you discover an island where no one lives. Name your island and draw a flag for it. Include at least one triangle and two quadrilaterals. Draw and color your flag. Cut it out and attach it to a craft stick, pencil, or other object. Share your flag with the class and name the shapes related to your flag. Describe the characteristics of each shape.