

**These activities are courtesy of [brighthub.com](http://brighthub.com)**

## **Bake a Lighthouse Cake**

**Teach kids to cook and have a blast creating a lighthouse cake.**

Bake three cakes by dividing batter from one cake mix into a one inch layer in a 9-inch by 13-inch pan, a one inch layer in an 8 inch round cake pan, and a full-sized cupcake in a muffin pan.

When cool, turn the large cake out on a cutting board or table and use cookie cutters or drinking glasses to cut out several round shapes, each slightly smaller than the last--starting with one 4 or 5 inches in diameter.

On a cake plate, set the round cake to act as a base. Stack the cake circles on top of the base--from largest on the bottom to one just slightly smaller than the bottom of the cupcake at top--with icing between to act as glue--for the tower portion. Put the cupcake on top of the stack to act as the top and light area of the lighthouse.

"Paint" the lighthouse with colored icing and add details with candies--licorice strings to outline windows or make rails, for example. Use candy rocks or leftover torn bits of cake to make rocks at the base of the lighthouse. Use blue icing to indicate water. Avoid stacking too tall, or you may have a leaning tower instead of a lighthouse.

## **Craft a Model Lighthouse from Cardboard**

Lighthouses were first used in the 13th century by the Mayans. The Romans, Greeks, Egyptians and Phoenicians also utilized lighthouses to mark the way for sailors along their coastlines. The Egyptians built the tallest lighthouse during this time period, standing 900 feet tall. While fires and candles were used to light the way of ancient seaman, electricity creates the beacon in today's society. Most lighthouses are built in a cylindrical shape, but square-shaped lighthouses also are seen. Build a model lighthouse from cardboard using the cylindrical shape.

**Difficulty: Moderate**

**Things You'll Need:**

- 12- by 18-inch piece of cardboard
- 8- by 8-inch piece of cardboard
- Compass
- Yardstick
- Pencil
- Craft knife or scissors

- Glue gun
- Hot glue
- Paper plate
- Acrylic paint
- Artist's paintbrushes
- Water
- Water container
- LED tap light

## **How To:**

Place the 12- by 18-inch sheet of cardboard on a flat work surface so a 12-inch edge is along the bottom. Place a mark 1 inch in from the upper right hand corner of the rectangle. Line the edge of a yardstick up with the mark and with the bottom right hand corner of the cardboard. Draw a line connecting the two points. Draw four 2 1/4-inch squares evenly spaced across the top edge of the cardboard. Place the top of each 2 1/4-inch square 3/4 inches from the top edge (11-inch edge) of the cardboard. Cut along the drawn lines.

Squeeze a line of hot glue along the cut side of the cardboard. Roll the left side of the cardboard over the hot glue. Overlap the left side of the cardboard 1/2-inch and place the overlap along the glue line. Press into place. Add more hot glue under the flap if necessary. Stand the completed cylinder up so the small end is on top.

Position the point on the compass in the center of the 8- by 8-inch square piece of cardboard. Slightly push the compass point into the cardboard to mark the center of the circle. Draw an 8-inch circle. Cut out the 8-inch circle.

Position the edge of the yardstick on the center point making sure to extend the length of the yardstick off the edge of the circle. Draw a line along the edge of the ruler. Move the bottom edge of the yardstick 2 to 3 inches away from the first line. Keep the top edge of the yardstick on the center mark. Draw a line along the edge of the yardstick. Remove the yardstick and cut out the pie-shaped triangular piece from the circle.

Squeeze a line of glue along one edge of the pie-shaped triangle. Place the opposite edge of the pie-shaped triangle over the line of glue making sure to overlap the cardboard by approximately 1/4-inch. This creates the roof to the lighthouse. Set aside with the point to the top.

Squeeze a line of glue along the very top edge of the cylinder. Immediately center and place the roof of the lighthouse on the hot glue. Gently push to set in place.

Squeeze a quarter size drop of paint on a paper plate. Paint the lighthouse the desired color. Make sure to paint an entrance at the bottom. Allow the paint to dry 15 minutes.

Sit a LED tap light on a flat work surface. Turn on the LED light. Place the completed lighthouse over the tap light.

## Lighthouse Shapes Math Activity

Pass out the shapes needed for the craft project described below and discuss each shape with the children. Hold up a shape and have the students name the shape. After each child has had a turn to name a shape, have them sort the shapes into groups in preparation for the craft.

### Things you'll need:

Precut construction paper into shapes for the lighthouse activity. For each child you'll need:

- 1 white rectangle, 9 inches by 3 inches (lighthouse base)
- 3 red rectangles, 1 inch by 3 inches (lighthouse stripes)
- 1 blue rectangle, 1 inch by 4 inches, round the edges to make an oval (walkway at top)
- 1 red square, 2 by 2 inches (top of lighthouse where windows will go)
- 1 red triangle, 3 inches, cut a small section of the top off so it's flat instead of a point (roof of lighthouse)
- 1 blue rectangle, 1 inch by 2 inches (lighthouse door at base)
- 4 small circles, about  $\frac{1}{2}$  inch each (one for the door and one for three of the stripes)
- 3 small yellow rectangles,  $\frac{1}{2}$  of an inch by 1 inch



### How To:

Have the child glue the red stripes to the lighthouse at equal intervals.

The top two stripes and the white stripe between them will each have one yellow circle glued in the middle.

Center the small blue rectangle at the bottom of the lighthouse base and attach it with glue.

Place a yellow circle toward the top of the door and glue it in place.

Place the blue oval at the top of the lighthouse base and glue it in place.

Glue the small red rectangle to underside of the top of the blue oval.

The three small rectangles will be glued to this rectangle.

Add the triangle shape and glue it at the top. This completes the lighthouse craft!

## **Counting and Large Motor Activity (a group activity)**

Lighthouses have a lot of steps. They start at the bottom of the lighthouse and spiral around the inside base all the way to the top. Explain to the children that the lighthouse can easily have over 200 steps that the lighthouse keeper has to climb each time he needs to care for the light! This math game will help the students practice counting, and will give them an idea of how tiring it would be to climb that many steps several times a day.

### **How To:**

Have the children form a circle.

They can count to 10, 12 or 20 depending on their ability. Decide which set of numbers they're going to practice.

Tell them they're going to pretend to climb 120 steps.

If they are going to count to 10 each time, the group will need 12 objects (erasers, bean bags, etc.) to place in the middle after each set of 10. For the number 12 they'll need 10 objects and if they count to 20, they'll need 6 objects.

Start counting and once they reach the first "level" (10, 12 or 20) have one child place their object in the middle of the ring of students. This will help keep track of when they reach the "top."

Continue until the last object has been placed in the middle.

Congratulate the students for making it to the top of the lighthouse!

## **Near and Far**

Ask the child/children to pretend they're on the walkway that circles the top of the lighthouse. If they look out to sea, they'll see boats.

Would a boat look really big (near) from this high up or would it look really little (far)?

Discuss what else they'd see when looking out over the beach. (Seagulls, rocks, sand, people playing in the water.)

Reiterate that everything would look really tiny or far away from this height.