Source: Coral Forest Teacher's Guide. Coral Forest, 400 Montgomery Street, Suite 1040, San Francisco, California 94104 Tel: (415)788-REEF Fax: (415)398-0385 e-mail: coral@igc.apc.org Used with permission.

4. THE EDIBLE CORAL POLYP

Objective: Students will review the parts of a coral polyp by building an edible coral polyp model.

Interdisciplinary Index: Science, Math, Language Arts

Vocabulary: coral, polyp, limestone, coral colony, coral reef, tentacles, endosymbionts

Materials:

white baking chocolate, candiquik mix, or other hard candy coating (½ ounce for each child)
one marshmallow for each student (substitute: section of banana or strawberry)
toothpicks
red licorice (regular or whip): six two-inch strips for each child. If regular licorice is used, cut the pieces into small, thin strips.
blue, red or green sprinkles
heat source (microwave or hot plate) for melting candy coating only
pan for candy coating
paper plates

Presentation:

You may want to prepare a model colony to show your students before they make their own.

1. Group the students into pairs.

2. Give each pair of students a paper plate. The plate represents the limestone base to which the coral is attached.

3. Give each student a marshmallow on a toothpick and six strips of licorice. The marshmallow represents the polyp body and the licorice represents the tentacles.

4. Give each pair one ounce of melted candy coating from the heat source in a shallow container (the candy represents the limestone skeleton).

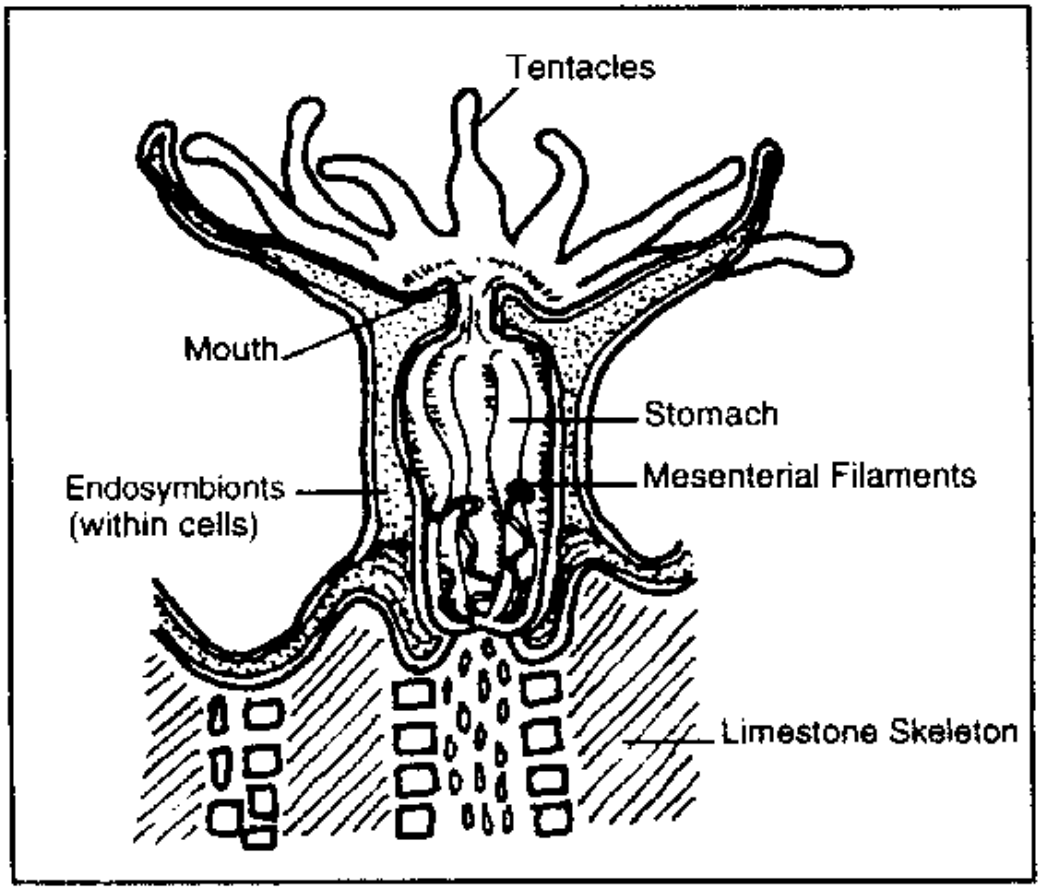
5. Have the students work together. Roll the sides of the marshmallow in the melted candy coating and stand the marshmallows on a paper plate. If the marshmallows are placed close enough together, they will attach to each other and resemble a coral colony.

6. Have the students insert six licorice strips around the top of the marshmallow. Children may want to use their toothpicks to help them poke the holes. [Be careful to remove *all* toothpicks!]

7. Slightly dampen the marshmallow with water and sprinkle it with the sprinkles. The sprinkles represent the endosymbionts. Use only one color per polyp.

8. Discuss the edible polyp model. Explain what the marshmallow, the candy, the licorice, the sprinkles, and the plate represent.

9. Now have the students pretend that they are parrotfish or crown-of-thorns sea stars and eat their polyps. YUM!



Follow-up/Extension:
Students may want to write a story about their polyp or draw a diagram. For a math project, students can count the number of tentacles on their polyp and multiply by the number of students in the class to find the total number of tentacles in the classroom coral colony.

Correlation to National Standards from McREL (http://www.mcrel.org) :

Life Sciences

5. Understands the structure and function of cells and organisms