

MODEL OF A SOLITARY RUGOSE CORAL

This sheet describes how you can make a model of a rugose coral that will fit into a standard plastic coffee cup.

This model is designed for students to make so that they learn the names of the parts and how they relate to each other in three dimensions.

It should take each student or pair of students about 10 minutes to make.

At the end of the lesson the students should dismantle them and put the parts back in the envelope so that they can be used another year.

Making the parts

You will need photocopy paper of three different colours red, yellow and green, 10cm long nails, plastic cups, sharp scissors, a hole punch and a laminator. The hole punch is one for making single holes as in photo.

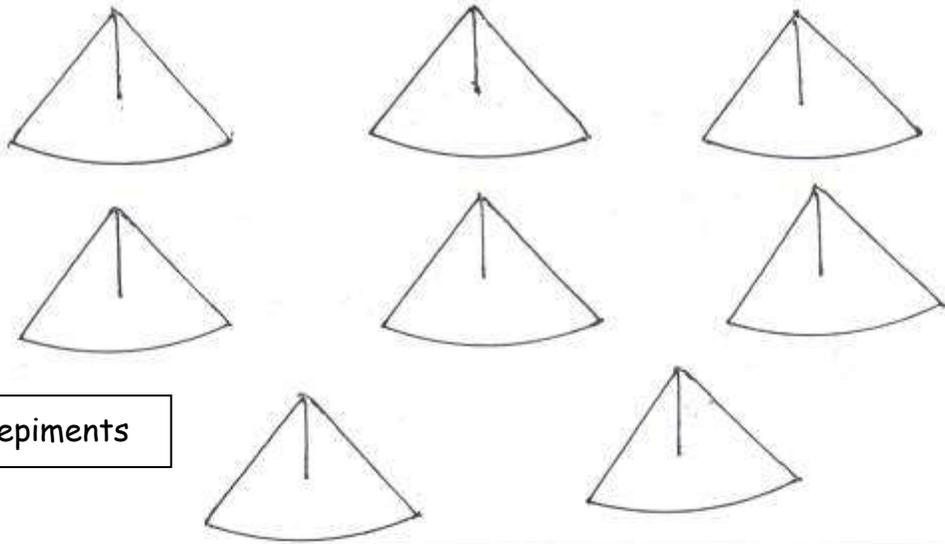
Each coral needs 8 septa, 8 dissepiments, 3 tabululae, a nail (central column) and a cup (epitheca). Plastic coffee cups seem to be fairly standard. The one I have used is 8.5cm high and has an internal diameter at the top of 6.6cm and at the bottom of 4.5cm.

Photocopy the septa onto red paper, the tabulae onto green paper and the dissepiments onto yellow paper. Laminate the photocopies and then cut out the parts. Cut the septa shape along the vertical lines into eight pieces and then cut along the dotted line on the septa. Cut the slits by cutting a very thin slither of paper out and make a hole the same diameter as the nail in the centre of each tabula using the hole punch.

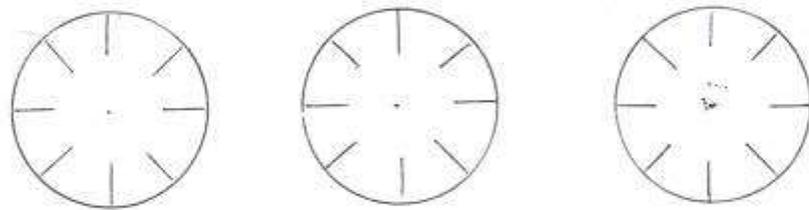
Cut the head off each nail so that the stem is 8cm long. File the rough or sharp edges.

Organise the pieces into sets.

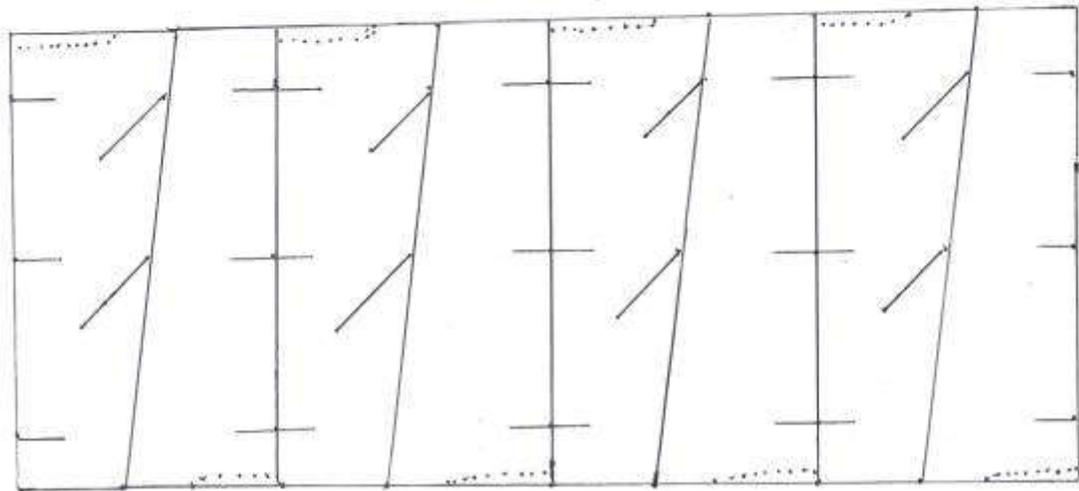
Make one photocopy of the instructions for each set and give one set to each student or pair of students should.



8 Dissepiments



3 Tabulae



8 Septa
Cut along the vertical and near vertical lines

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INSTRUCTIONS

Red = septa (8 pieces, 4 with diagonal slits and 4 without)

Green = tabulae (3 pieces)

yellow = dissepiments (8 pieces)

Nail = axial column (1 piece)

Cup = epitheca (1 piece)

Note Septum is singular, septa is the plural, tabula is singular and tabulae is the plural.

When inserting pieces make sure each side goes into each slit.

- 1 Check that you have the correct number of pieces.
- 2 Separate the septa into those with diagonal slits and those without.
- 3 Take a septum without diagonal slits and insert the three tabulae into the horizontal slits.
- 4 Take a second septum without diagonal slots and insert it into the tabulae at 180°.
- 5 Now put two more septa without diagonal slits in at 90°.
- 6 Now insert the four septa with diagonal slits.
- 7 Insert the dissepiments into the diagonal slits in the septa.
- 8 Now place your model into the epitheca.
- 9 Finally gently push the nail point first into the hole in the centre of the top tabula and down through the other tabulae until it is touching the bottom.

