Water Babies

Grade Level

1st – 4th

Objectives

* To be able to list at least five animals that spend their young lives in the estuary.

* To be able to describe how young animals differ from adults.

* To be able to use critical thinking skills to determine the identity of an unknown animal larva.

N.C. Standard Course of Study

Grade 1
(1.L.1.1)

Grade 2
(2.L.1.1, 2.L.1.2)

Grade 4
(4.L.1.1, 4.L.1.2)

Overview:

This activity is designed to expose students to the larval forms of many animals found in the estuary. In order for students to determine which "water baby" they are, they must ask their classmates questions about their baby's characteristics to help them guess who they are.

Materials:

- Cardboard squares or 5" x 7" index cards
- Set of animal baby cards (attached)
- Yarn
- Hole punch

Background:

Almost 90% of all seafood species spend at least part of their lives in the safety of the estuary. The nice calm waters of the estuary offer a safe haven for these "water babies' while they are growing. The larval forms of many estuarine species must find security in the waters because they are plankton, the food source for larger animals. The young animals find abundant food and shelter in the brackish marshes of the estuary. Food sources along with shelter and safety can be found within sea grasses, oyster beds and tidal pools. Many species of fish and crabs migrate to the calm waters of the estuaries to lay their eggs. The future of the seafood industry is dependent upon the existence of these healthy, unpolluted habitats.

Activity:

Cut out the adult and baby animal cards and place each picture on a piece of cardboard or on an index card. Punch two holes at the top of each card. Connect the matching baby and adult cards with two pieces of yarn. Hang the set of cards on students with the baby drawing on the front and the adult drawing on the back. Instruct each student to look at their baby and try to imagine the identity of their animal without looking at the card on their back.

Have students walk around the room asking other students to look at the drawing of the adult animal on their back. They can ask the other students "yes" or "no" questions about the their animal's features or behavior but they cannot ask if it is a certain species. Some of the questions they might ask include:

- Is it large?
- Does it have fun?
- Is it slimy?
- Does it have two eyes?
- Do you eat it?
- Can you find them at the beach?
- Does it live in a shell?

After students think they have figured out their animal, ask them to sit down. If students begin to get frustrated because they are unable to figure out their animal, give them a few hints.

Don't have time to make a set of the hanging cards? Make a list of the animal names on the board and then show the class as a whole the babies and have them try to guess the correct one.

After all animals have been identified correctly, discuss with the students questions such as:

- Which baby looked the least like the adult?
- Which baby looked the most like the adult?
- Why do some animals lay lots of eggs and others only lay a few?
- How would pollution affect a baby fish?

Extension:

- Obtain baby fish from a pet store and raise them in your class. Have students do weekly observations on their progress.
- Have students be creative and make their own drawings of baby animals and the habitats that they grow in.
- Have students research a "water baby" for more information. Some suggestions to look for are: diet, predators, economic significance, life cycle and range.

Vocabulary:

- brackish
- estuary
- egg
- larva
- habitats
- plankton

References:

Cerullo, Mary M. 1999. Sea Soup Phytoplankton. Tilbury House Publishers, Maine. 39pgs. (ISBN: 0-88448-208-1)

Johnson, William S. and Dennis M. Allen. 2005. Zooplankton of the Atlantic and Gulf Coasts, A Guide to Their Identification and Ecology. The John Hopkins University Press, Baltimore and London. 379 pgs. (ISBN: 0-8018-8168-4)

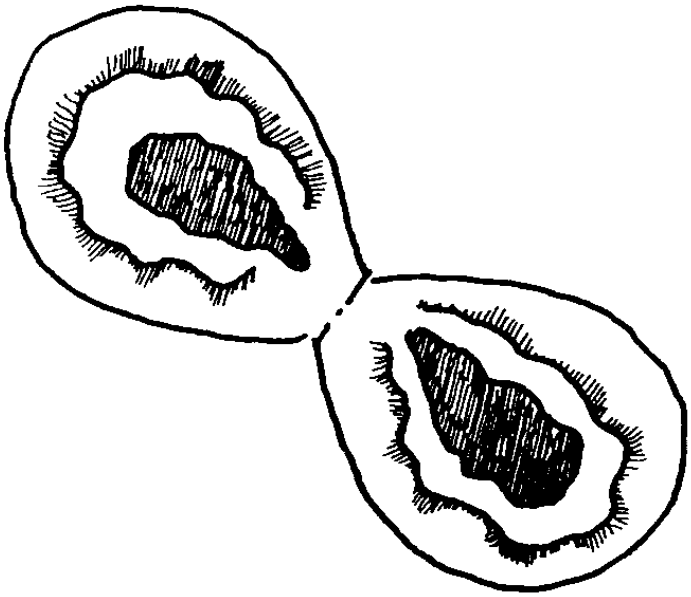
National Science Standards:

Content Standards: *Science as inquiry. [K-4]*

Life science [K-4]

Ocean Literacy Principles:

Essential Principle #5. *The ocean supports a great diversity of life and ecosystems. (Fundamental Concepts-a, b, d, i)*



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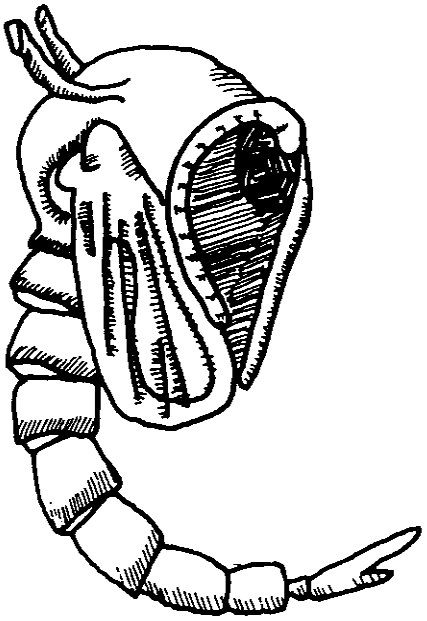

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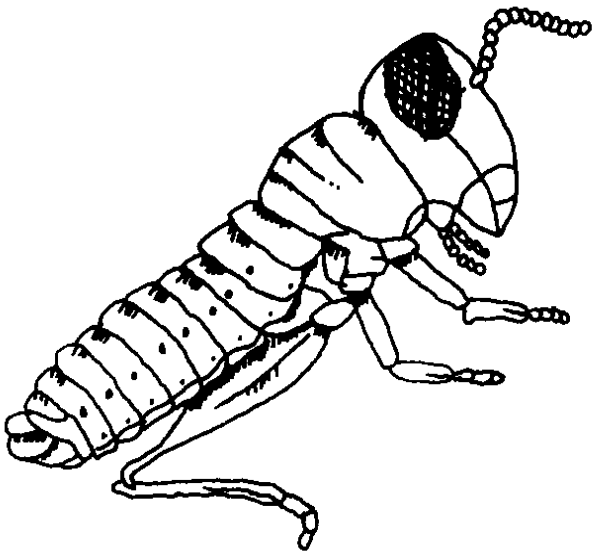

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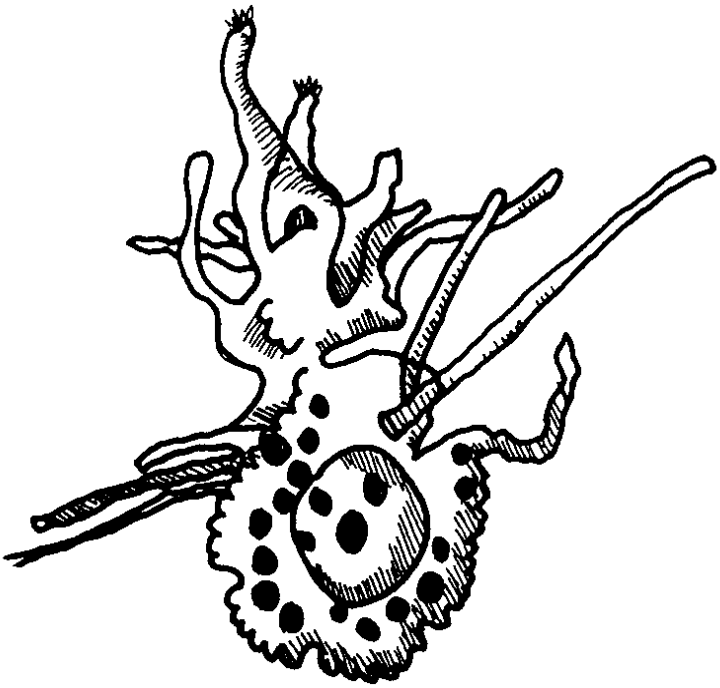

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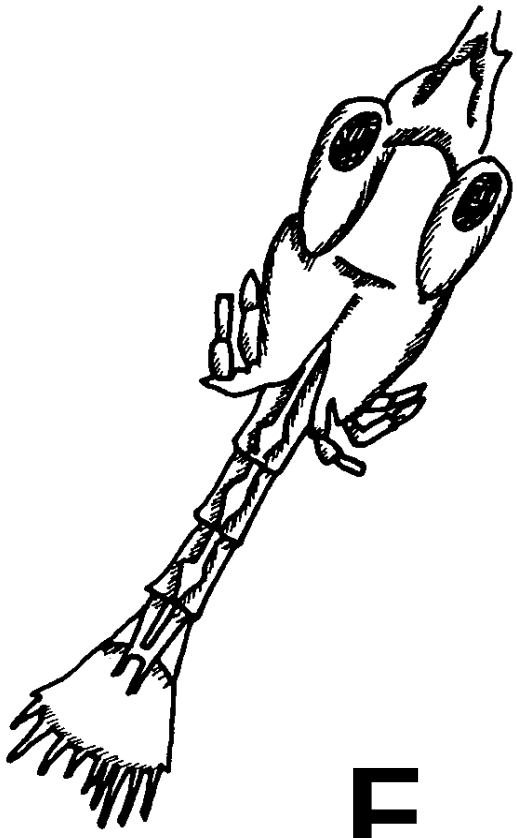

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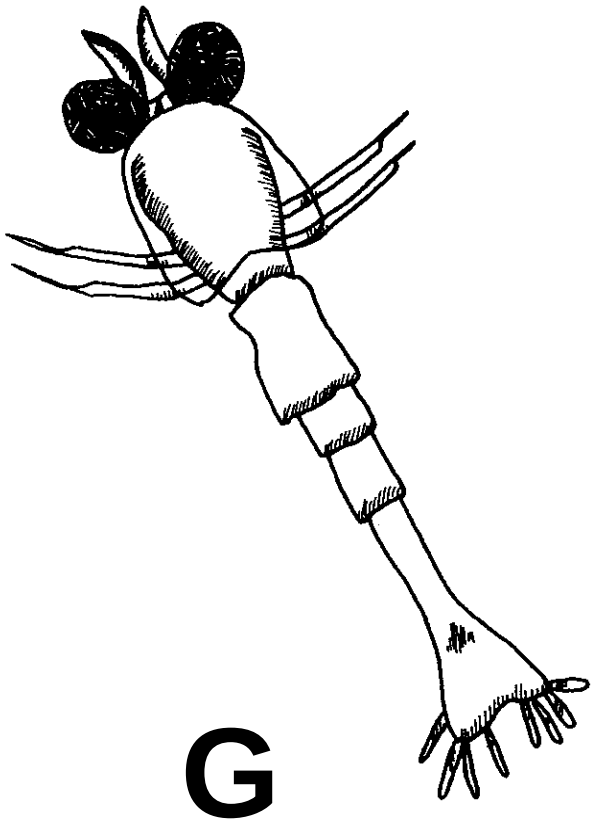

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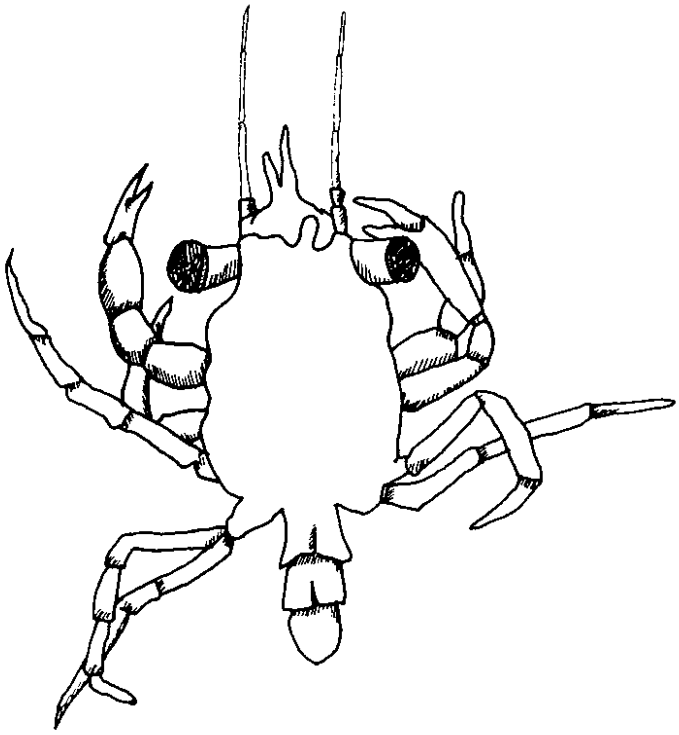

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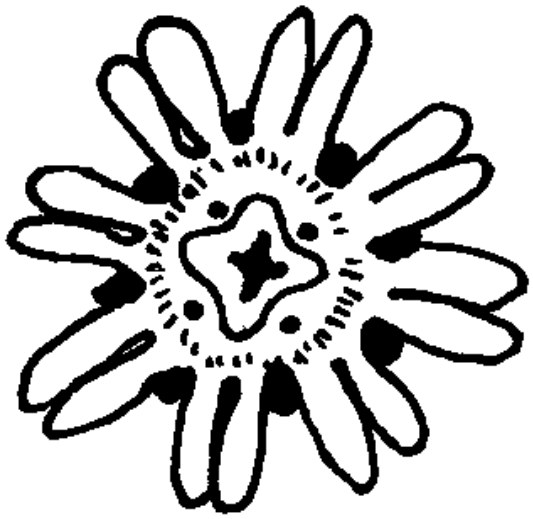

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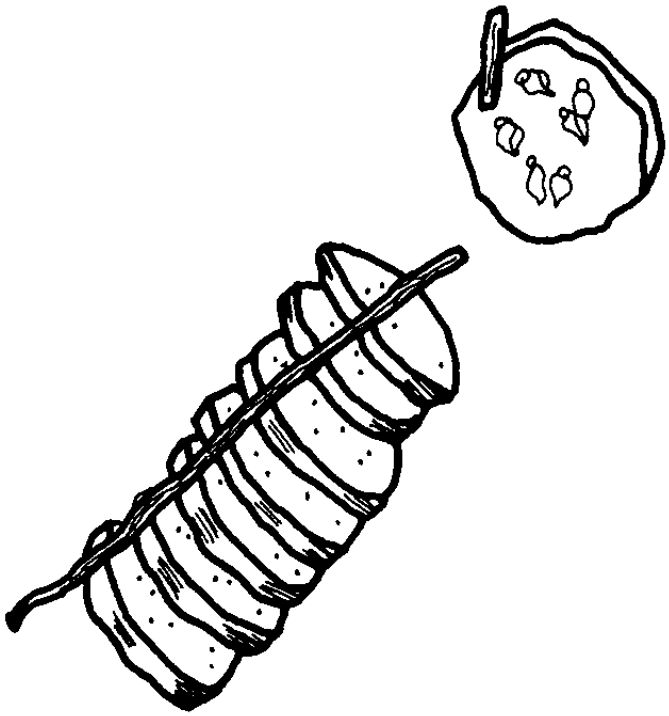

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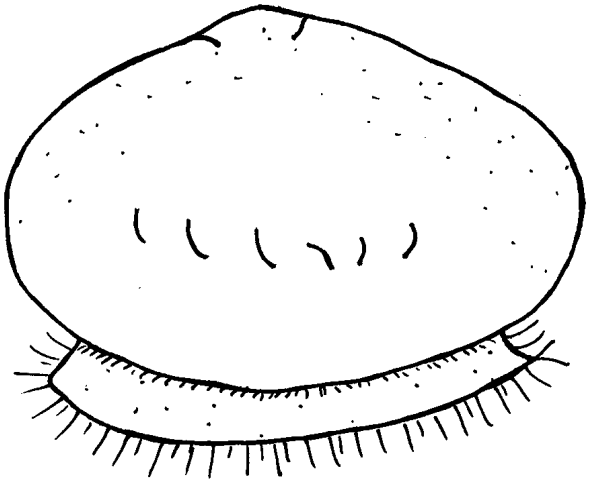

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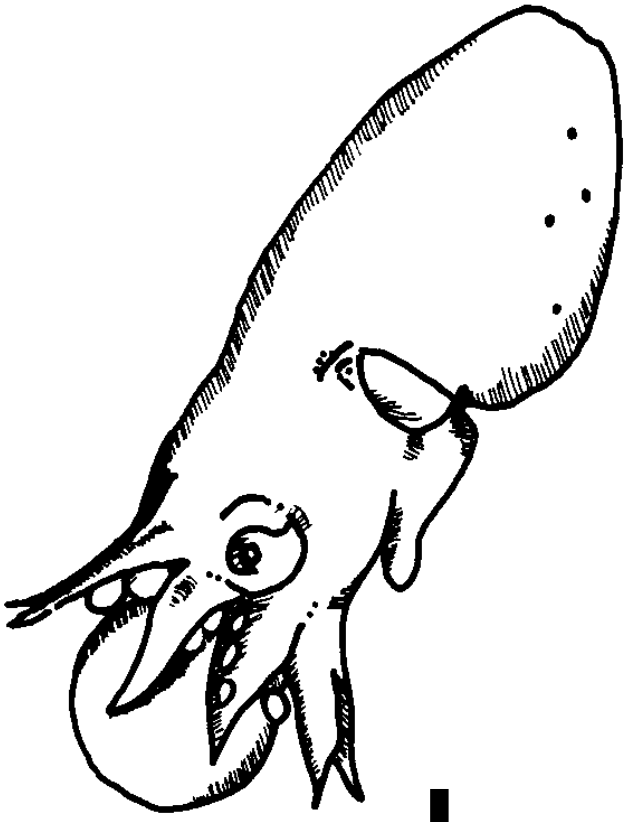

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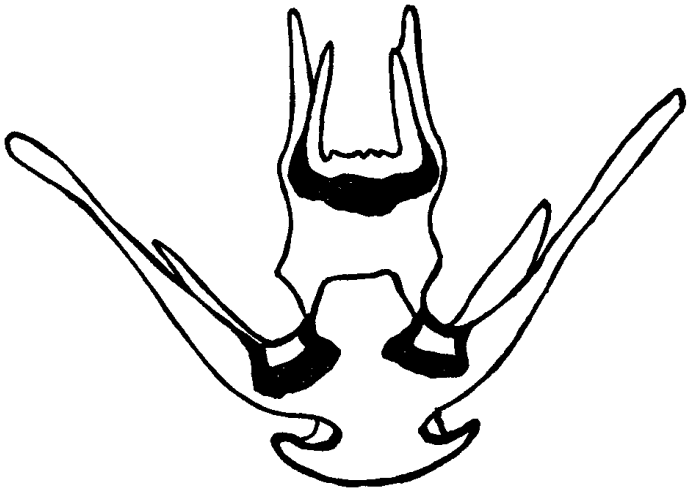

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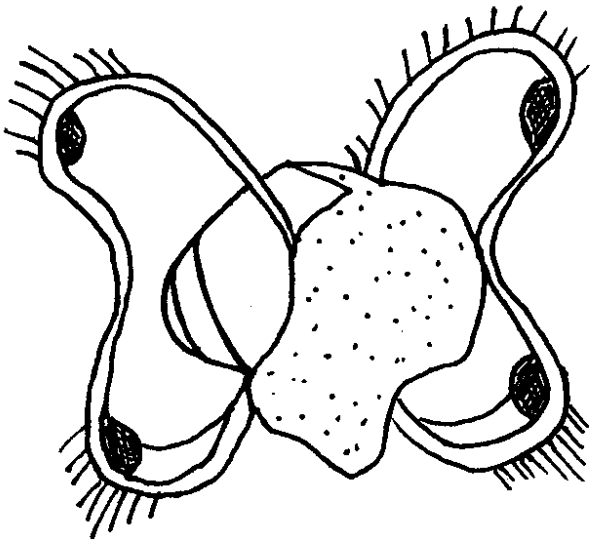

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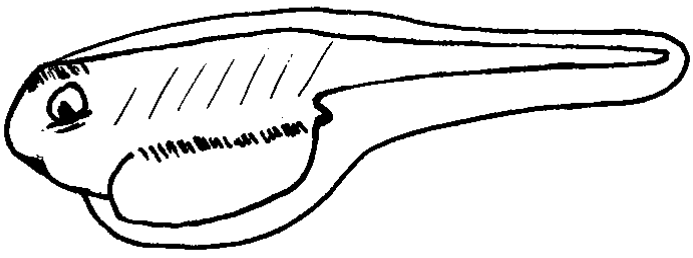

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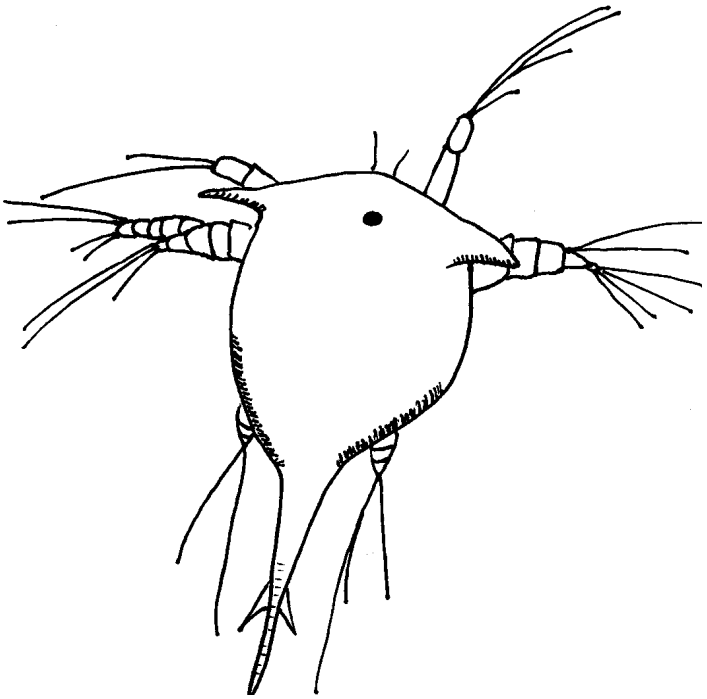

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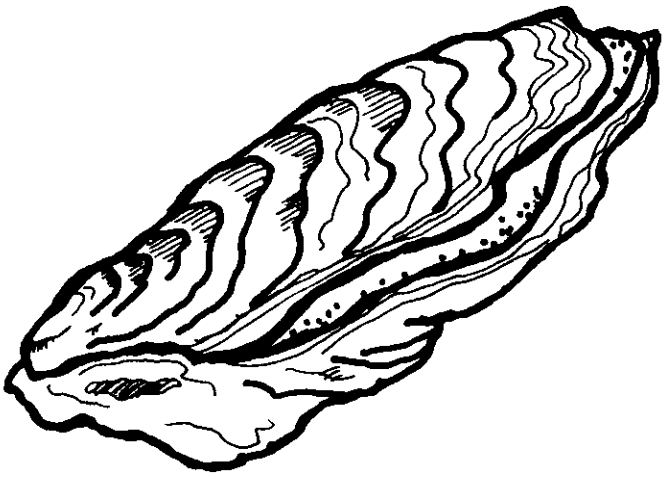

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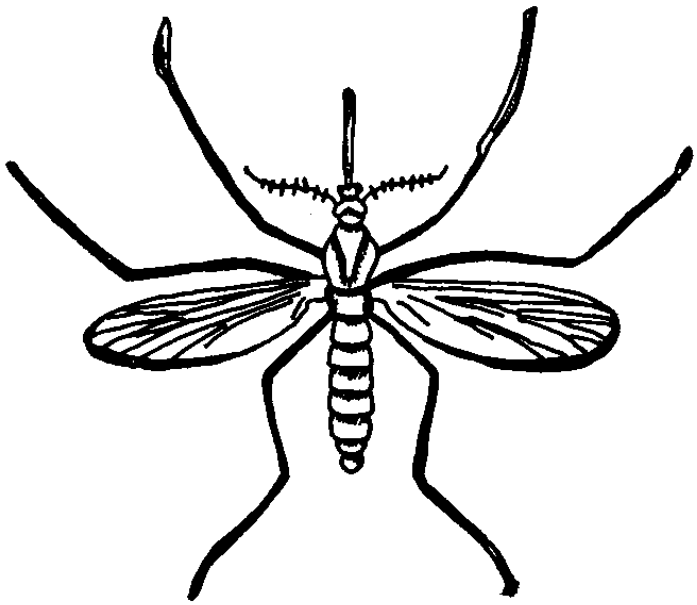

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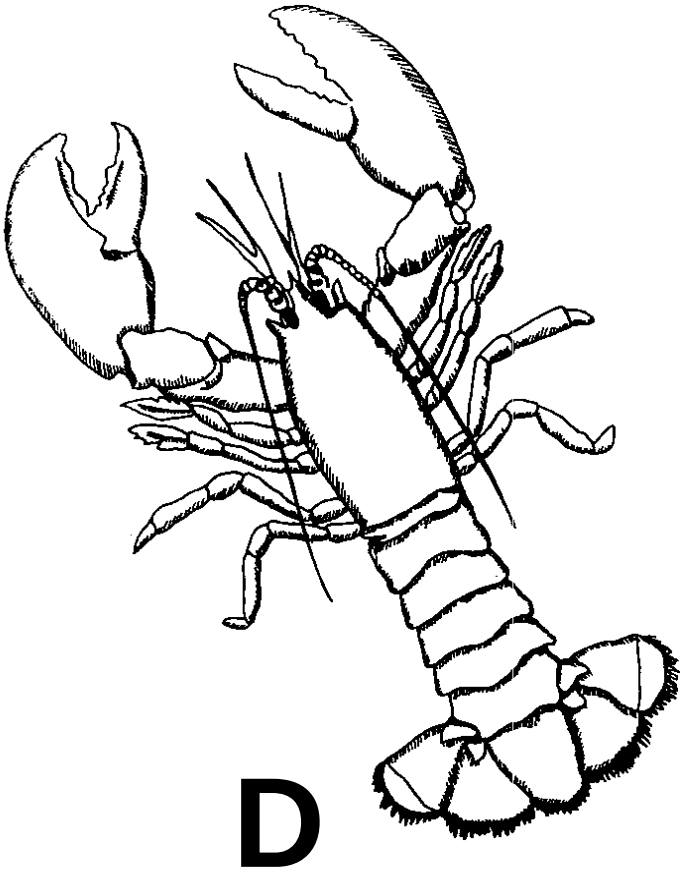

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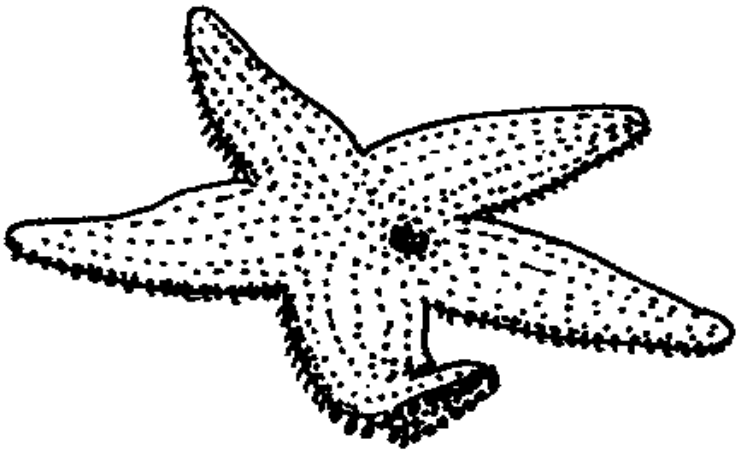

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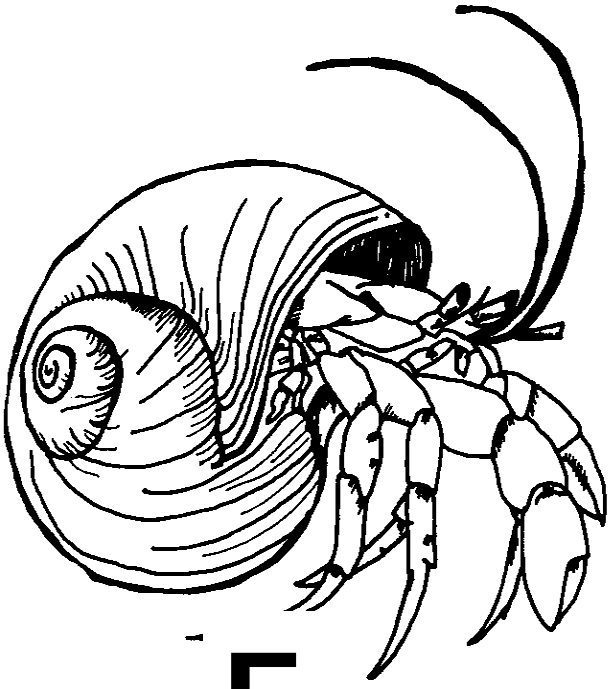

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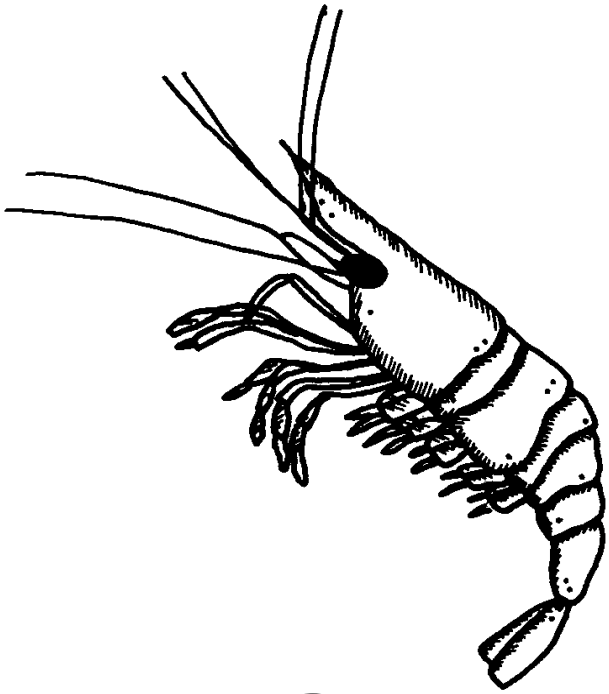

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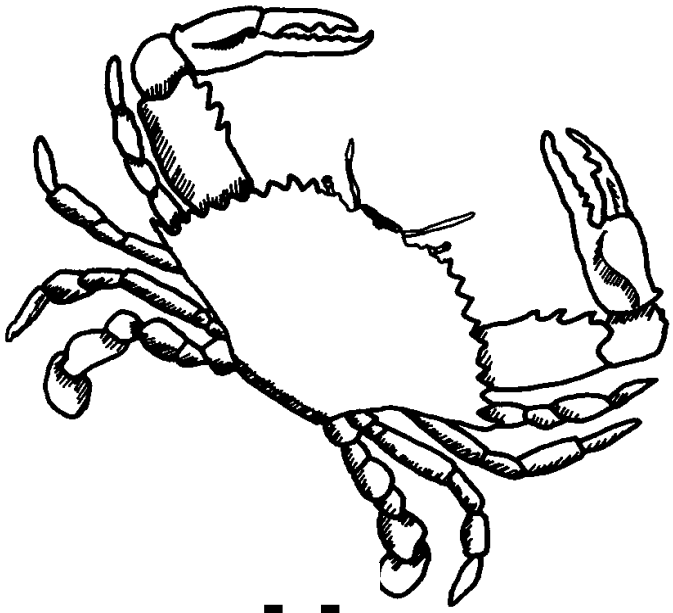

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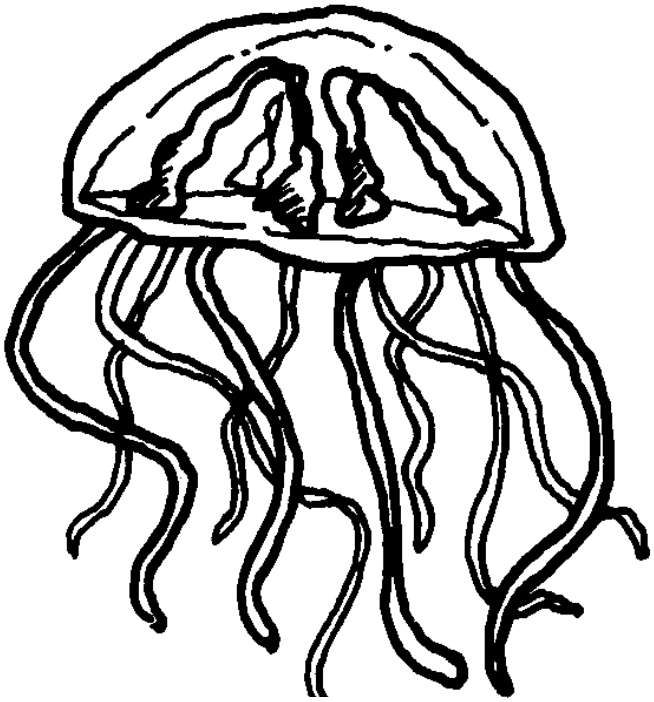

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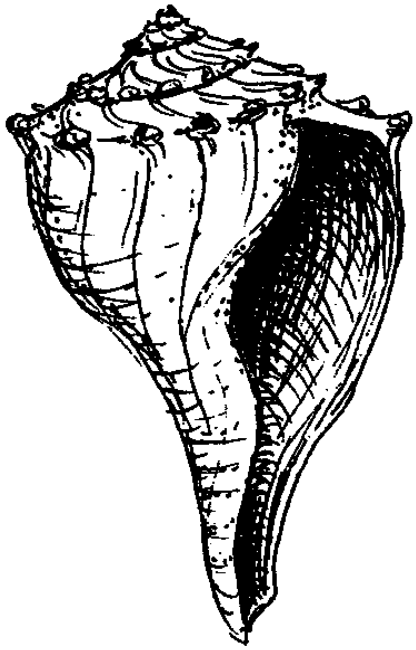

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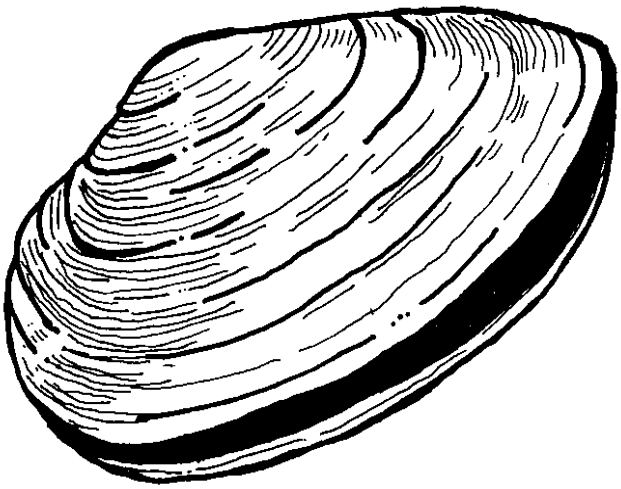

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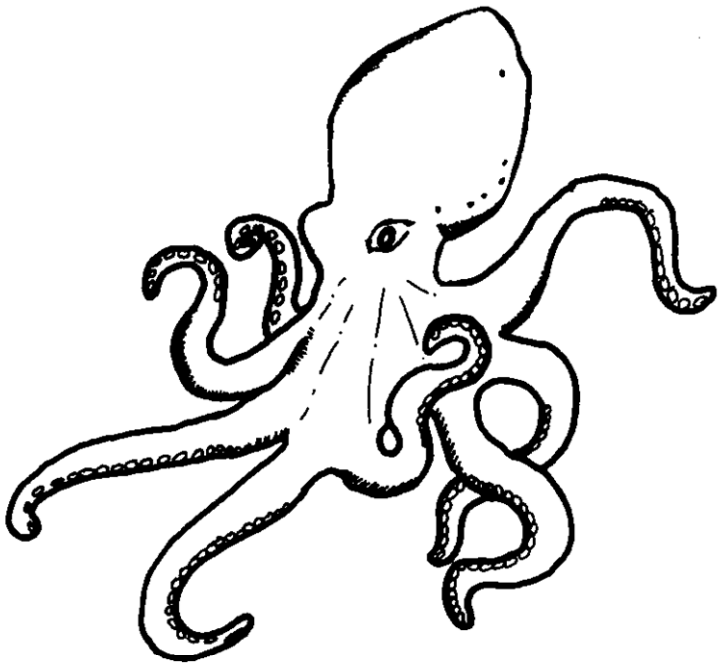

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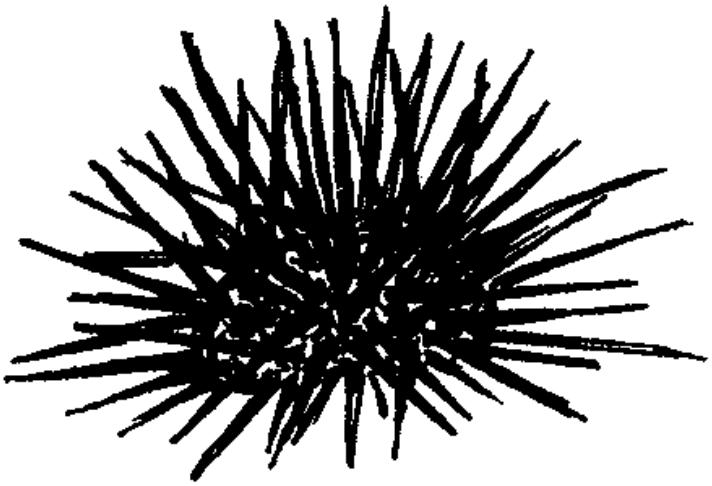

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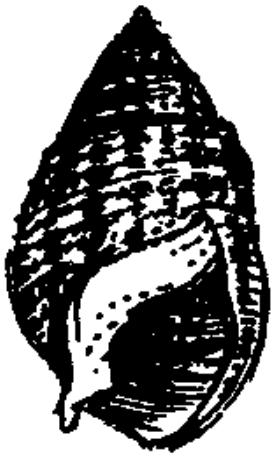

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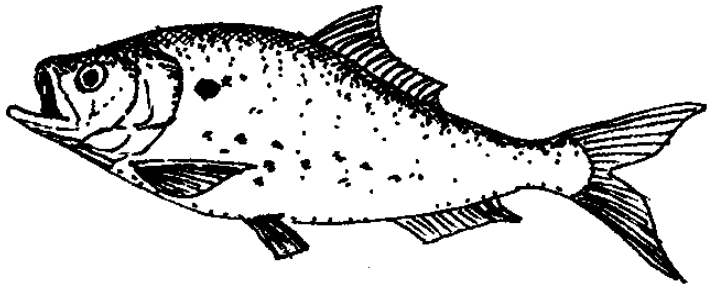

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A – Oyster

B – Mosquito

C – Grasshopper

D – Lobster

E – Starfish

F - Hermit Crab

G – Shrimp

H – Crab

I – Jellyfish

J – Whelk

K – Clam

L – Octopus

M - Sea Urchin

N - Mud Snail

O – Fish

P - Barnacle

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