

FILL AN OCEAN

A bingo-type game about classification of ocean animals

Target age group: 8-14

Number of players: any

Time needed: 15-45 minutes (very flexible)

Materials needed: copies of pattern pages, scissors, glue sticks, pennies or candies for tokens to mark squares, and picture cards or clues

Preparation: Copy the pattern pages onto regular paper. Each player will need one map page and one strip of squares. (The page with the squares gives you enough strips for 5 players.) Cut apart the squares and glue them randomly to the squares on the map. Each player's board should be unique. Provide each player with 15-20 tokens.

How to play:

This game is a variation on Bingo, but instead of getting 4 in a row up and down or across, you get all 4 squares in an ocean filled. For example, if you fill all four squares in the Atlantic Ocean, that's a Bingo. You can set the rules for winning. You may want to keep the game going a bit even after someone gets Bingo, and allow "runners up." As a final round, I set the rules to say that after one ocean was filled, that one was officially taken. Eventually it got down to only one ocean left as a possible Bingo. I was playing with a fairly large group, and this added a bit of fun at the end.

Clues:

I used digital pictures stored in a folder on my computer. I set up my projector and showed them on a large screen in a semi-darkened classroom. The kids liked the large pictures and it was a great chance for me to make comments about things we'd learned about some of these animals (e.g. how to tell a marine flatworm from a sea slug, or a jellyfish from a comb jelly). Your situation is likely to be different from mine, so I can't just assume you can download pictures and show them on a projector like I did. Therefore, I have provided some small pictures that you can use with a small group if you really can't download your own. You can cut them apart and set them out for the players to look at. *(NOTE: These pictures are easily found using Google image search. No infringement of copyright is intended by providing these picture pages. I believe this to be within "fair use" for educational purposes. This game is for personal use only and should not be copied, distributed or sold.)*

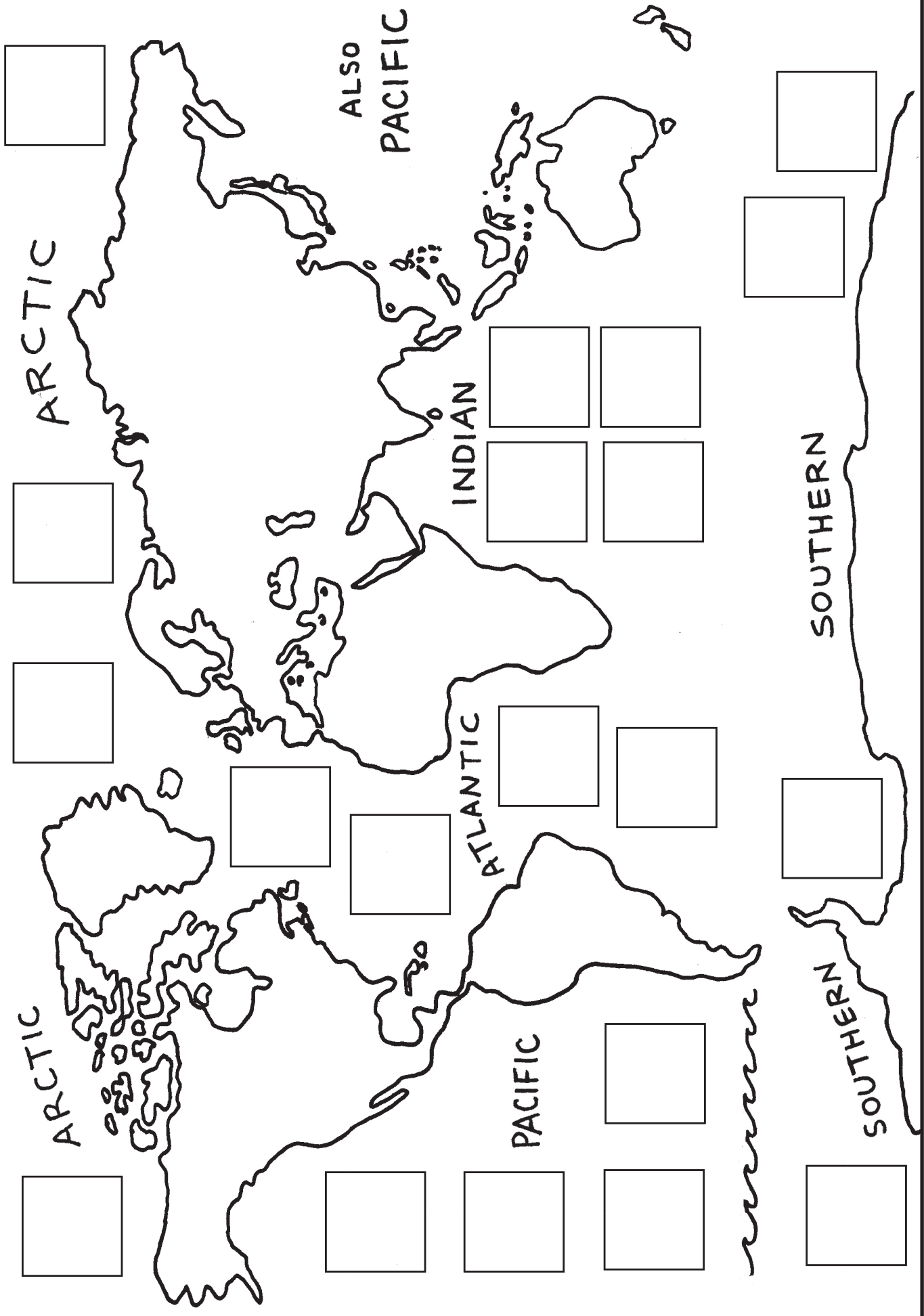
Also, there is the possibility of writing some clues. For example, "The name of this group means 'spiny skin.'" You could do a few rounds with verbal clues and then several more with picture clues. You could even have your students write clues as a review activity before you play the game.

You can choose how much help to give the players as they look at the pictures. I started out giving a lot of help so that no one felt "lost." Generally, I'd let the kids call out what group they thought it belonged to until I heard the right answer. (We'd been working on classification a lot already.) For strange creatures, I let them wonder and guess for half a minute, then I would confirm the right answer. This worked well in my group setting.

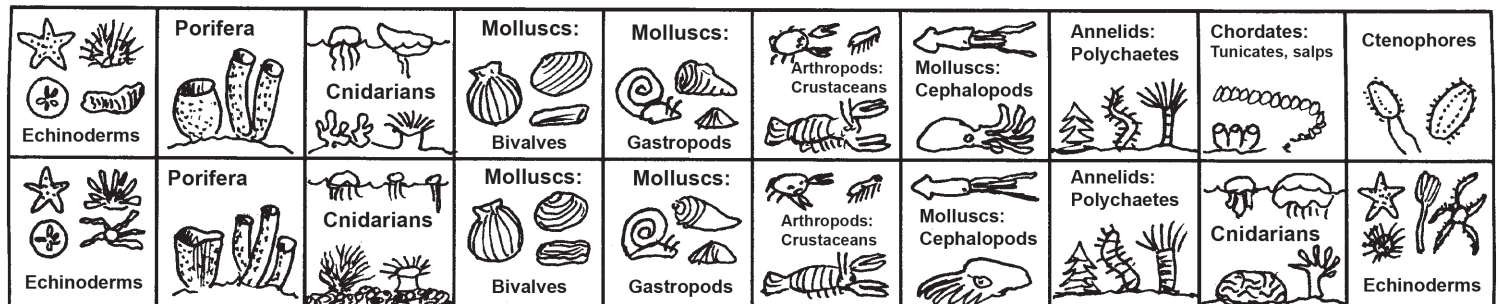
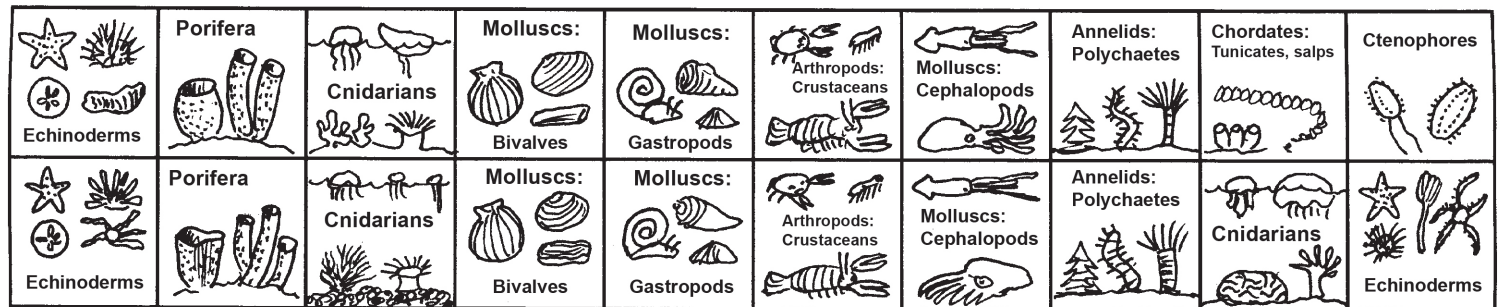
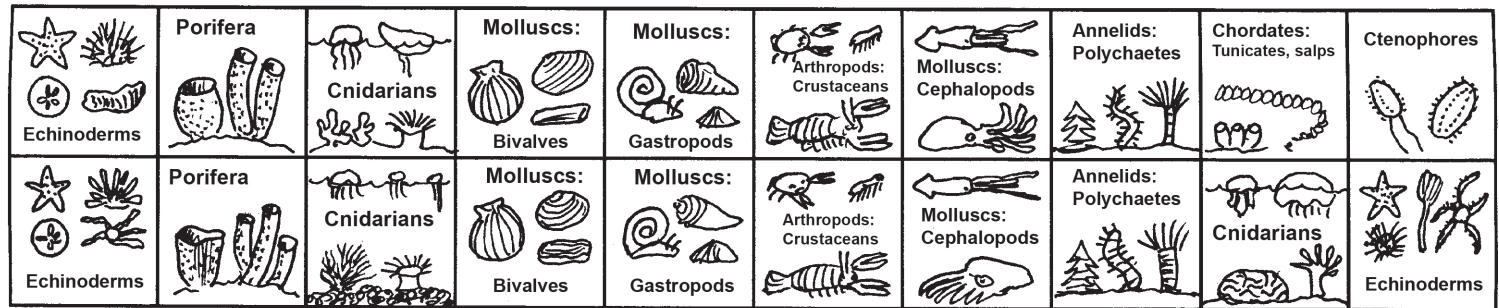
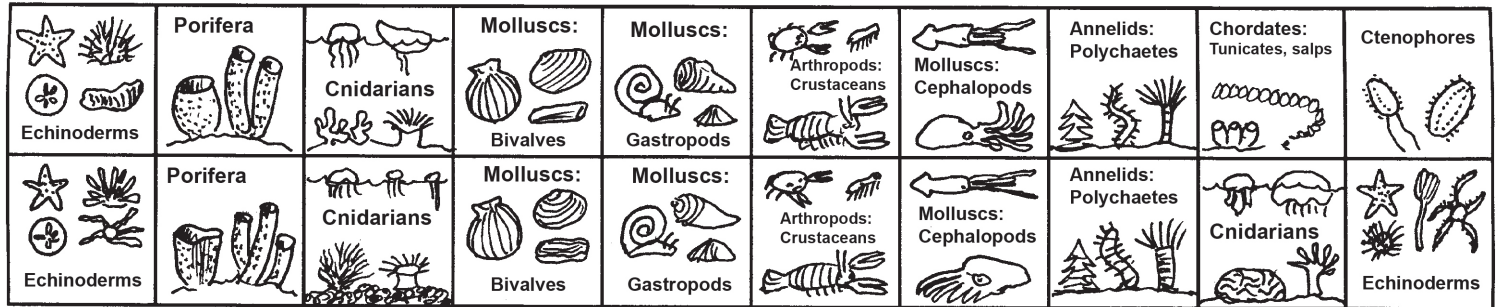
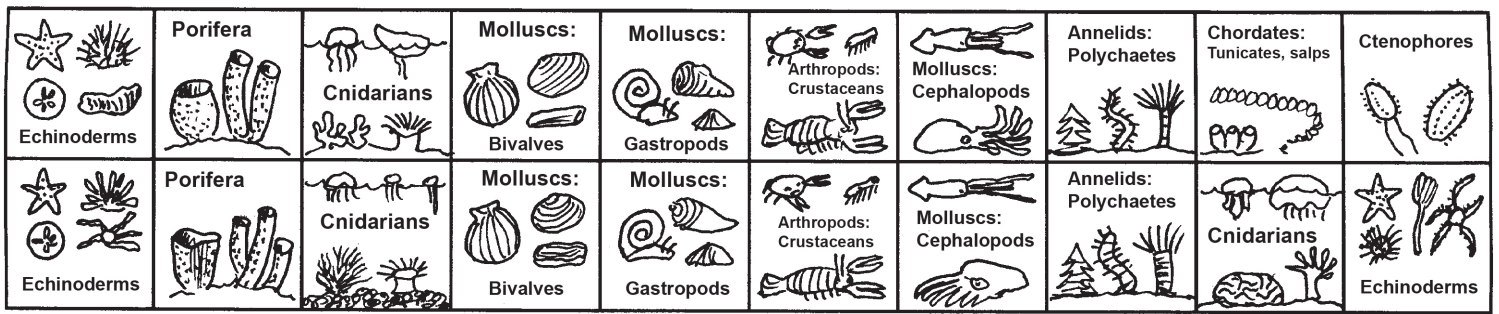
Song: This is provided just in case it is a help to you. To hear the tune, just type key words "song Swanee River" (also spelled Suwanee/Suwannee) into YouTube or Google search, and you will come up with audio/video to listen to. All of the songs I found, however, are pitched a bit too high and were difficult to use in my classroom. I intend to provide a sound track pitched a bit lower, and when it is finished I will post it on my site.

TIP: If you need more help with classification, make sure you find the free download about invertebrate classification, listed in the ANIMALS section of www.ellenjmchenry.com. The flaps on this chart are phyla, which is a big help in learning the difference between phyla and classes. (Mollusca is a phyla, cephalopod is a class.)

CLASSIFICATION NOTE: You will notice that one of the phyla is "Chordata." This is the same phylum that mammals belong to. The qualification for phylum Chordata is NOT having bones, but having a notochord, even if only during embryonic stages. Humans have a notochord in the first few months of development, then it is lost. The notochord runs parallel to the spine but does not become part of the spine. In animals that keep their notochords, the notochord will act more like a spinal chord. So phylum Chordata contains both vertebrates and invertebrates.



FILL IN THE OCEAN



Copy onto regular paper. Each player will need one strip, so this page gives you enough for 5 players.



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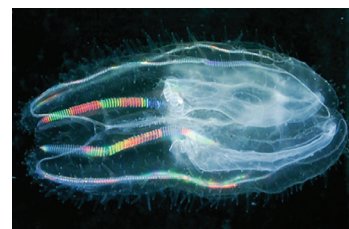
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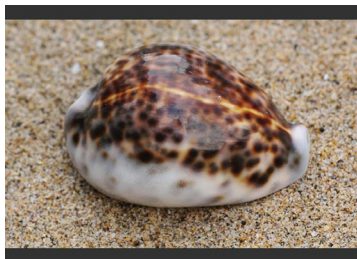
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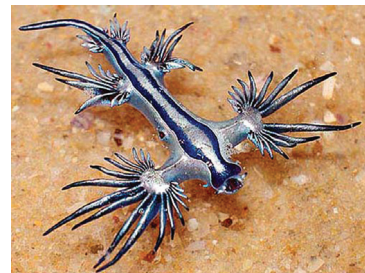
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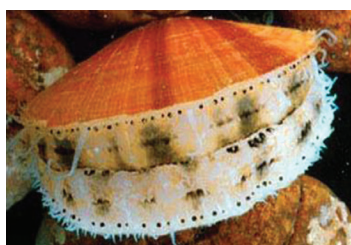
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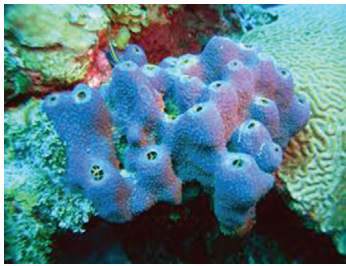
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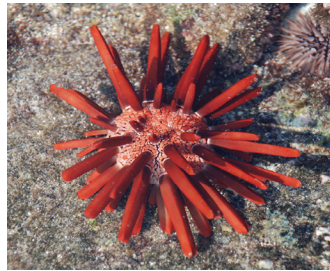
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ANSWER KEY:

- 1) sea star (Echinoderm)
- 2) giant clam (Bivalve)
- 3) sea slug (Gastropod)
- 4) sand dollar (or sea biscuit) (Echinoderm)
- 5) sponge (Porifera)
- 6) jellyfish (Cnidarian)
- 7) bristleworm (Polychaete)
- 8) comb jelly (Ctenophore)
- 9) cuttlefish (Cephalopod)
- 10) blue crab (Crustacean)
- 11) brittle star (Echinoderm)
- 12) anemone (Cnidarian)
- 13) salp (Chordata)
- 14) krill (Crustacean)
- 15) whelk (Gastropod)
- 16) Christmas tree worm (Polychaete)
- 17) sea pen (Cnidarian)
- 18) tube sponges (Porifera)
- 19) sea cucumber (Echinoderm)
- 20) comb jelly (Ctenophore)
- 21) octopus (Cephalopod)
- 22) cowrie (Gastropod)
- 23) razor clam (Bivalve)
- 24) feather star (Echinoderm)
- 25) isopod (Crustacean)
- 26) tunicates (Chordata)
- 27) mushroom coral (Cnidarian)
- 28) serpulid worms; a type of tube worm (Polychaete)
- 29) sea lily (Echinoderm)
- 30) cone snails (Gastropod) (very dangerous animal!)
- 31) chambered nautilus (Cephalopod)
- 32) spaghetti worm (Polychaete)
- 33) TRICK QUESTION! This is a marine flatworm, not a sea slug. Flatworms (Platyhelminthes) are not on the board. (Sea slugs have gill plumes, flatworms do not.)
- 34) basket star (Echinoderm)
- 35) soft coral (Cnidarian)
- 36) blue dragon sea slug (Gastropod)
- 37) scallop (Bivalve) (The little rows of dots are eyes.)
- 38) salp colony (Chordata)
- 39) barnacles (Crustaceans)
- 40) sea fan (Cnidarian) (It is sort of a type of coral.)
- 41) sponge (though it looks like coral) (Porifera)
- 42) pencil sea urchin (Echinoderm)
- 43) oyster (Bivalve)
- 44) limpets (Gastropods)
- 45) comb jelly (Ctenophore)
- 46) feather duster worm (Polychaete)
- 47) TRICK AGAIN! It's another flatworm. No gill plume.
- 48) vampire squid (Cephalopod)
- 49) mussel (Bivalve)
- 50) brain coral (Cnidarian)

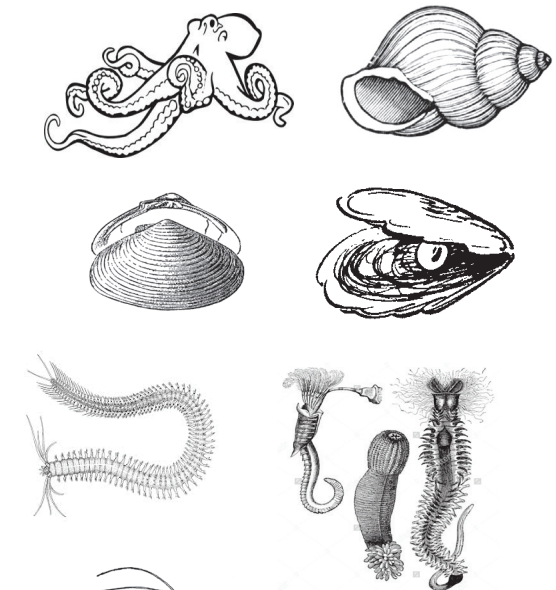
THE MARINE INVERTEBRATES SONG

Way down hidden in the deep, cold ocean,
Marine invertebrates roam;
So many different kinds of locomotion,
But none has a single bone.
Phylum Porifera contains the sponges,
They filter water through pores.
Now we know they're in the animal kingdom,
Don't call 'em plants no more!

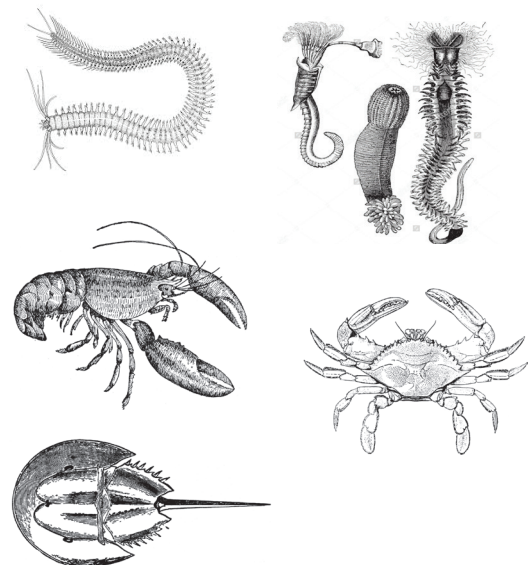


Echinoderms are seashore treasures,
They've got spiny skins.
Have fun collecting starfish and sand dollars,
Don't step on spiny urchins!
The Cnidarians are hollow,
Coral, jellyfish, anemones.
Don't confuse the jellies with the comb-bearers,
The Ctenophores are comb jellies.

Phylum Mollusca has the squishy, soft bodies,
Suction they use for tread.
The octopus and squid are called the *Cephalopoda*,
That means their foot's their head!
Snails and slugs are *Gastropoda*,
They have "stomach feet."
Clams and oysters are *Pelecypoda*,
They're bivalves with "hatchet feet."



Segmented worms are phylum Annelida,
The tubes you see are theirs;
Cousins of the earthworms living in the ocean,
The Polychaetes have many little hairs.
Plates are flat and so are flatworms,
Platyhelminthes they be.
All other worms are in the minor phyla,
Unique among the creatures of the sea.



That leaves only Phylum Arthropoda,
They've got jointed feet.
Lobsters, shrimp and crabs are class *Crustacea*;
They're a special treat to eat.
And the class *Chelicerata*
Is the horseshoe crab.
Now we're ready to discuss the creatures
In any ocean lab!

Phyla are underlined. Classes are in *italics*. Tune is "Swanee River."

