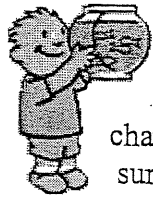


**Chapter 10: Evolution**  
**Fashion A Fish**

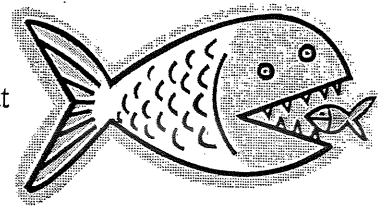
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**Story:** A long time ago, many creatures were created that now make up our animal kingdom. This process of trial and error took many thousands and millions of years. Many types of animals, birds, and fish were not able to change as fast as their habitat. Many of these creatures died, but a lot of them survived by changing or adapting to the ever-changing environment.

Your challenge is to design a fish that you think would survive in your choice of environments. You can design the fish first and then the environment/habitat of or the other way around.

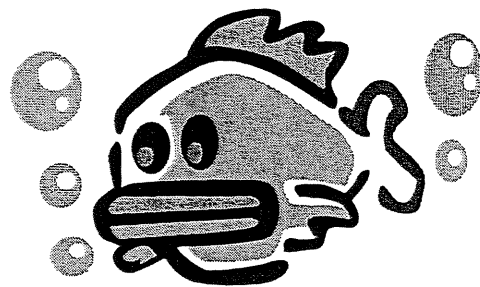
When you are done write a several paragraph story about your fish. (You need more than a couple of sentences.) Include in your story why you decided on the features that you did, and how they best suit the environment you picked.



Use your imagination!

**Procedure:**

1. Make a **COLORFUL** picture of a fish and its environment. Remember to include detail which would help your fish survive in its environment. Use the info on the back of this page for ideas.
2. Write several paragraphs telling the story of your fish and habitat. Where did it come from, and how does each feature or adaptation allow it to survive in its environment. What does it eat? Where does it live?



ADAPTATION	ADVANTAGE	EXAMPLES
<b>Mouth</b>		
sucker shaped mouth	feeds on very small plants and animals	sucker, carp
elongate upper jaw	feeds on prey it looks down on	spoonbill, sturgeon
elongate lower jaw	feeds on prey it sees above	barracuda, snook
duckbill jaws	grasps prey	muskellunge, pike
extremely large jaws	surrounds prey	bass, grouper
<b>Body Shape</b>		
torpedo shape	fast moving	trout, salmon, tuna
flat bellied	bottom feeder	catfish, sucker
vertical disk	feeds above or below	butterfish, bluegill
horizontal disk	bottom dweller	flounder, halibut
hump backed	stable in fast moving water	sockeye salmon, chub, razorback
<b>Coloration</b>		
light colored belly	predators have difficulty seeing it from below	most minnows, perch, tuna, mackerel
dark upperside	predators have difficulty seeing it from above	bluegill, crappie, barracuda, flounder
vertical stripes	can hide in vegetation	muskellunge, pickerel, bluegill
horizontal stripes	can hide in vegetation	yellow and white bass, snook
mottled coloration	can hide in rocks and on bottom	trout, grouper, rockbass, hogsucker
<b>Reproduction</b>		
eggs deposited in bottom	hidden from predators	trout, salmon, most minnows
eggs deposited in nests	protected by adults	bass, stickleback
floating eggs	dispersed in high numbers	striped bass
eggs attached to vegetation	stable until hatching	perch, northern pike, carp
live bearers	high survival rate	guppies