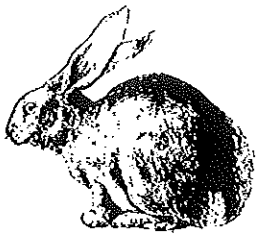
NATURE KIDS



SCIENCE PROJECTS JUST FOR FUN.

Fish flyers

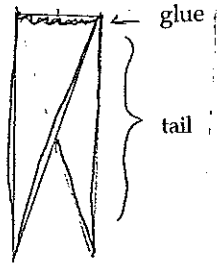
Make a fish flyer for your own.
If you and some friends all make fish together,
you can have a whole school!

Materials:

- 2 rectangular sheets of tissue paper (the same or different colors)
- scissors
- glue and tape
- chenille sticks or wire
- string
- markers

What to do?

1. Cut each sheet into triangles as shown in the illustration. You will end up with 2 large triangles (the body) and 4 small triangles (the fins and tail).



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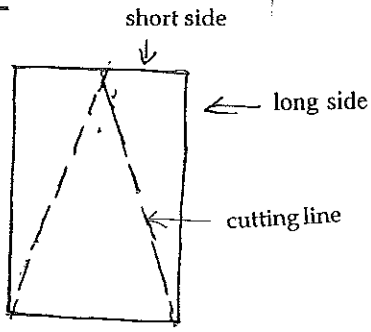

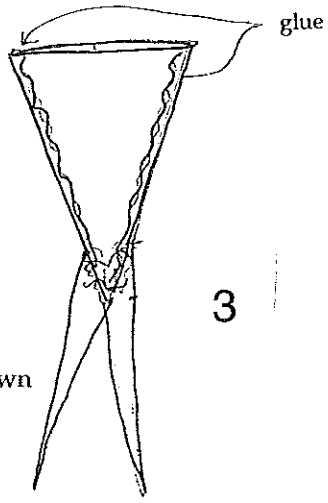

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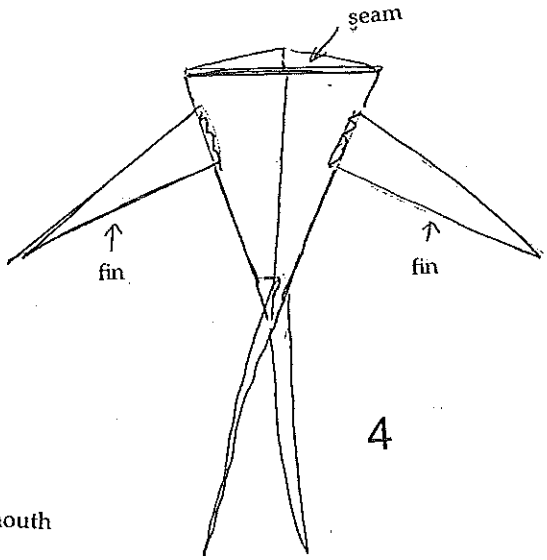
2. Glue 2 of the small triangles along their wide ends as shown This will be the tail.

3. Glue the sides of the large triangles together with the wide ends of the tail in between. (see illustration)

4. Glue the fin triangles on the sides of the body. You may trim the fins and tail to any shape or design you like.



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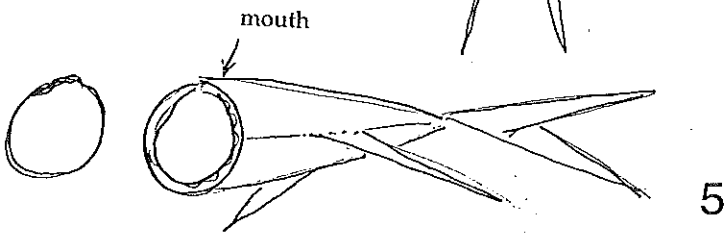
5. Make a circle from the chenille stick or wire that will fit the size of the mouth opening. Open the mouth end of the fish and fold the edge over. Fit the wire into the fold and glue or tape shut. Color with markers if you choose.

6. Attach a string or balloon stick and hang or stand it in your yard and watch it "swim" in the wind.



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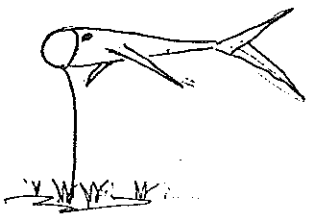

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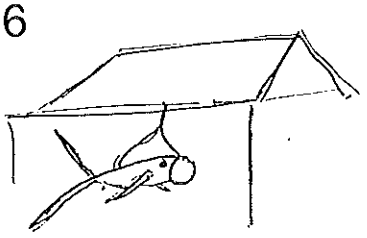


add eyes, trim tail and fins to suit.

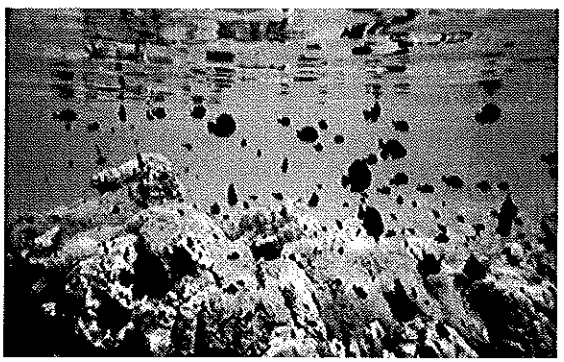
Teacher's Corner

by Jenni Malone

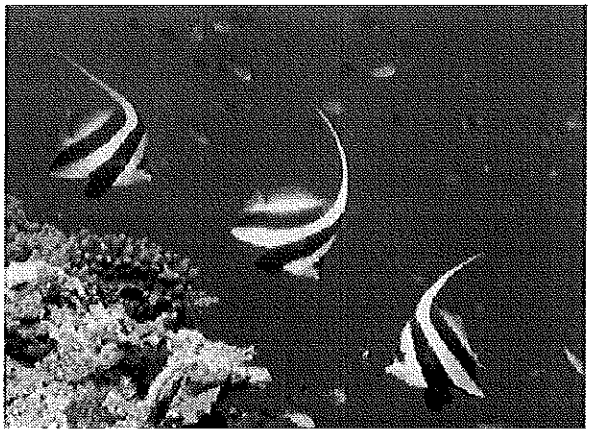
School Daze: Fish in Formation

Animals live in a variety of groups: prides of lions, hives of bees, coveys of pigeons, and schools of fish. Each species of animal derives specific benefits from living in a group, whether it's enhanced protection from predators, help in raising young, or more eyes on the lookout for food.

School of fish not only live in close proximity to each other, but move in synchronization, too. Sometimes fish pick up visual clues so that when one fish turns the rest follow suit. More often, though, a fish "feels" the movements of its neighbors along the *lateral line*, a series of nerve endings along the side of its body that sense differences in the water pressure thus informing the fish of what is happening around it.



The individual fish find safety in numbers in a school. Each individual has a better chance of being one of the ones that got away if a predator attacks. A school of fish can sometimes out maneuver a predator, confusing it and allowing the school to divide and swim around it, reforming behind.



The individual fish can benefit from the extra eyes on the lookout for food. Even sharks and rays often travel in schools for feeding. While most schools consist of only one species of fish, mixed schools sometimes tag along after a larger fish, like a shark, in order to pick up scraps left from its hunting.

Some species of fish form schools temporarily to mate or to migrate. *Mating* for fish often involves releasing eggs and sperm into the water. Having a sizable school together when this happens enhances the chances for fertilization. However it is unlikely that the fish in any one school are closely related.

Schools of fish that inhabit open water are often egalitarian in organization. Any fish that detects food or a predator signals, with movement, color change, or electric pulse and the communication spreads like a wave through the group. On the other hand, schools of fish that inhabit a specific territory, as in a coral reef, appear to have hierarchies, with the largest males at the top. Some fish change sex as they grow or in response to an imbalance in the school.

Schooling is a very effective safety and feeding mechanism during the day, but is not used by nighttime fish. Nocturnal predators don't use their sight as much as their other senses so that schooling is a less effective defense than general scattering.

So, staying in school seems to be just as important for fish as it is for kids!

Resources:

"Good Reasons to Stay in Schools" by Kathy Walsh from **Ranger Rick Magazine**

"Fish in Schools: Togetherness is the Only Way to Go" by Joseph S. Levine from **Smithsonian**