ALPINE NEWT CHALLENGE

Removing Invasive Fish

WHAT'S THE PROBLEM?

Invasive fish, like trout, minnows, and sunfish, eat alpine newt eggs and larvae. They cause the newt population to shrink.

WHAT IS THE SOLUTION?

The solution is to remove the invasive fish. Some organizations, like Life Resque AlPyr, use nets, traps, and electrofishing. Their methods must remove fish without harming native species, like alpine newts.

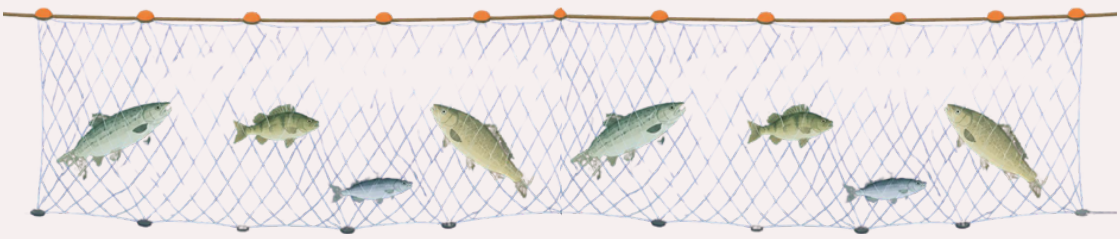
WHAT KIND OF NETS ARE USED?

Scientists tested many different types of nets, such as cast nets and trawls. Cast nets are wide, circular nets thrown into the water. The edge of the net sinks, trapping fish beneath it. Trawls are nets dragged behind a boat. Fish are tangled and trapped in the net if they swim into it.

The most effective net was a gillnet. Gillnets are attached to long ropes that stretch across the lake or pond. The net hangs vertically (up and down) in the water.

When fish swim into the net, their heads fit through the holes, but their bodies do not. Their gill flaps trap them in the net when they try to back out. Nets need different-sized holes to catch fish of all sizes.

Gillnets need to be checked regularly to remove any fish that are caught.



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DESIGN A NET TO REMOVE INVASIVE FISH

Pretend you are a scientist removing invasive fish. You must design a new type of net to try. Use inspiration from cast nets, trawlers, and gillnets. Answer the questions below in a small-group discussion to help you plan your design. Then, once you have answered all of the questions, sketch and build your net!

1. WHAT DOES YOUR NET LOOK LIKE (SHAPE, SIZE, ETC.)

2. WHAT IS YOUR NET MADE OF?

3. HOW DOES YOUR NET TRAP FISH?

4. HOW WILL YOUR NET CATCH FISH OF ALL SIZES?

5. HOW WILL YOU MAKE SURE NATIVE ANIMALS ARE NOT TRAPPED?

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SKETCH YOUR NET

BUILD YOUR NET

Now that you have designed your net, it is time to build it!

Use any materials you have available. Helpful materials might include...

- Pipecleaners
- String
- Straws
- Toothpicks
- Glue or tape
- Paperclips
- Etc.

Once you build your net, think about how you would use it. Do you think any changes need to be made to make it more effective? If so, why?