

The Amazing World of Lobsters



Created by Third Graders in Mrs. Nichols and Ms. Keller's Classes at Presumpscot School

Mrs. Nichols' Class



Lobster Expedition Guiding Questions

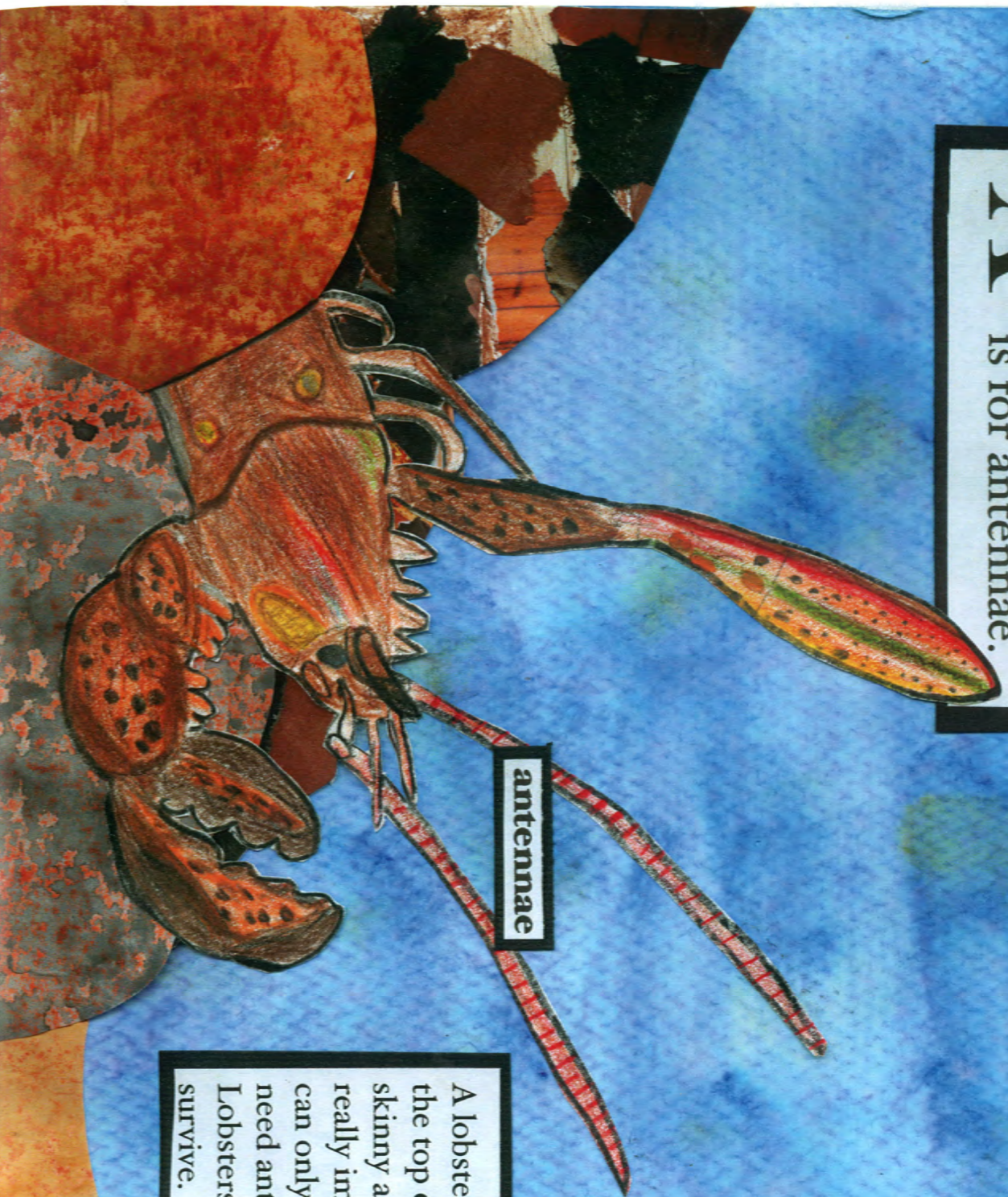
**What do lobsters need to survive at each stage of their life cycle?
How does the lobstering industry impact Portland?**

Throughout our Lobster Expedition our students learned many interesting facts about this amazing crustacean. We studied a lobster's anatomy, its life cycle, the prey it eats and its predators that hunt it, the tools lobstermen use to catch them and how the lobstering business impacts our local economy. The third graders at Presumpscot School are indeed experts on the subject. We hope you enjoy learning some interesting and cool facts about lobsters and lobstering by reading our ABC book.



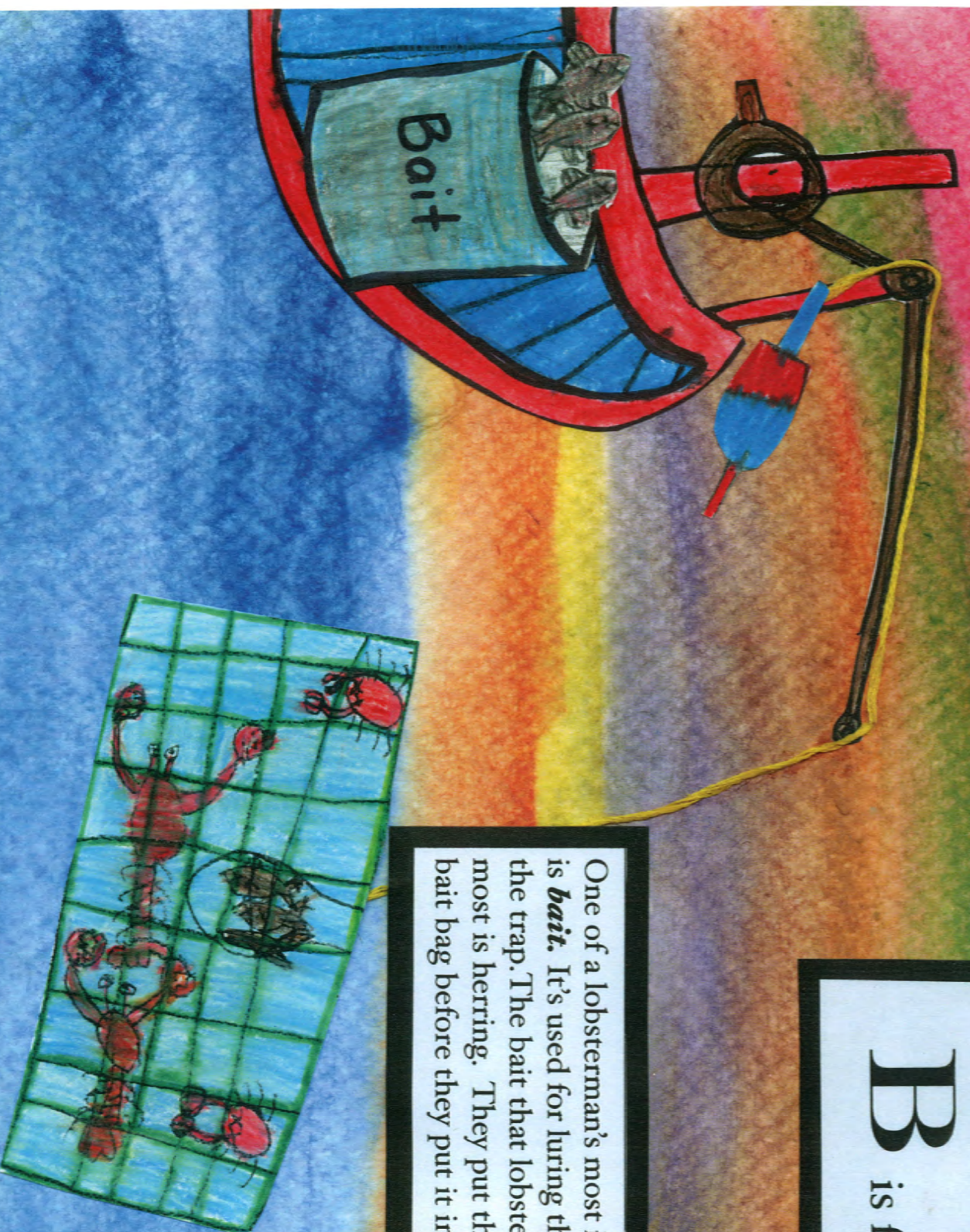
Ms. Keller & Mrs. Nichols

A
is for antennae.



A lobster has two *antennae* on the top of its head and they are skinny and long. Antennae are really important because lobsters can only see shadows. They need antennae to find their food. Lobsters need their antennae to survive.

B
is for bait.



One of a lobsterman's most important tools is *bait*. It's used for luring the lobsters into the trap. The bait that lobsters love the most is herring. They put the bait in a mesh bait bag before they put it in a trap.

C

is for crusher claw.

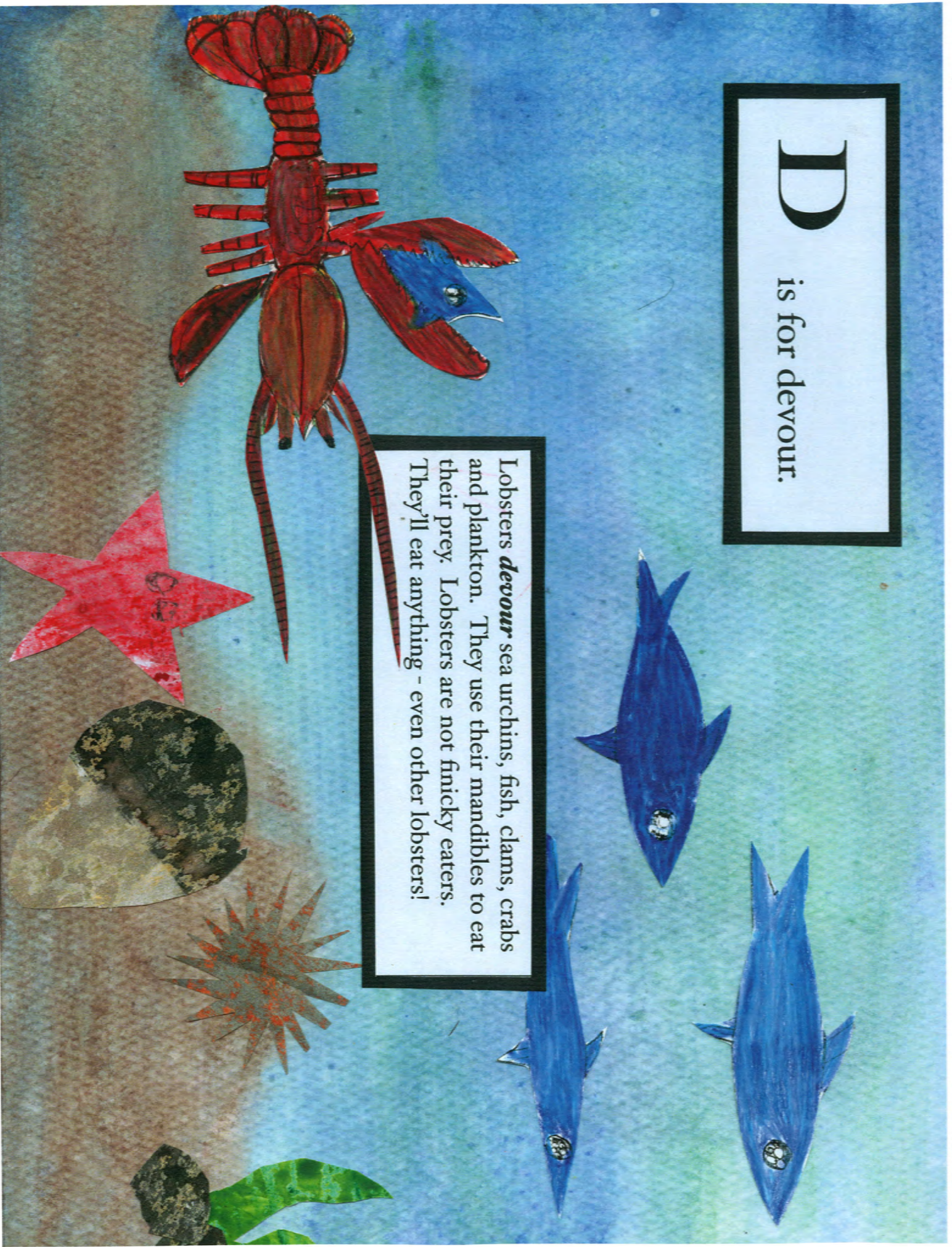
Maine lobsters have two different claws. The hugest claw is the **crusher claw** and it has teeth to crush its prey. A lobster uses the powerful crusher claw to crack a crab's shell. Also the fat crusher claw is important because a lobster uses it to defend off predators to help survive in the sea.



D

is for devour.

Lobsters **devour** sea urchins, fish, clams, crabs and plankton. They use their mandibles to eat their prey. Lobsters are not finicky eaters. They'll eat anything - even other lobsters!

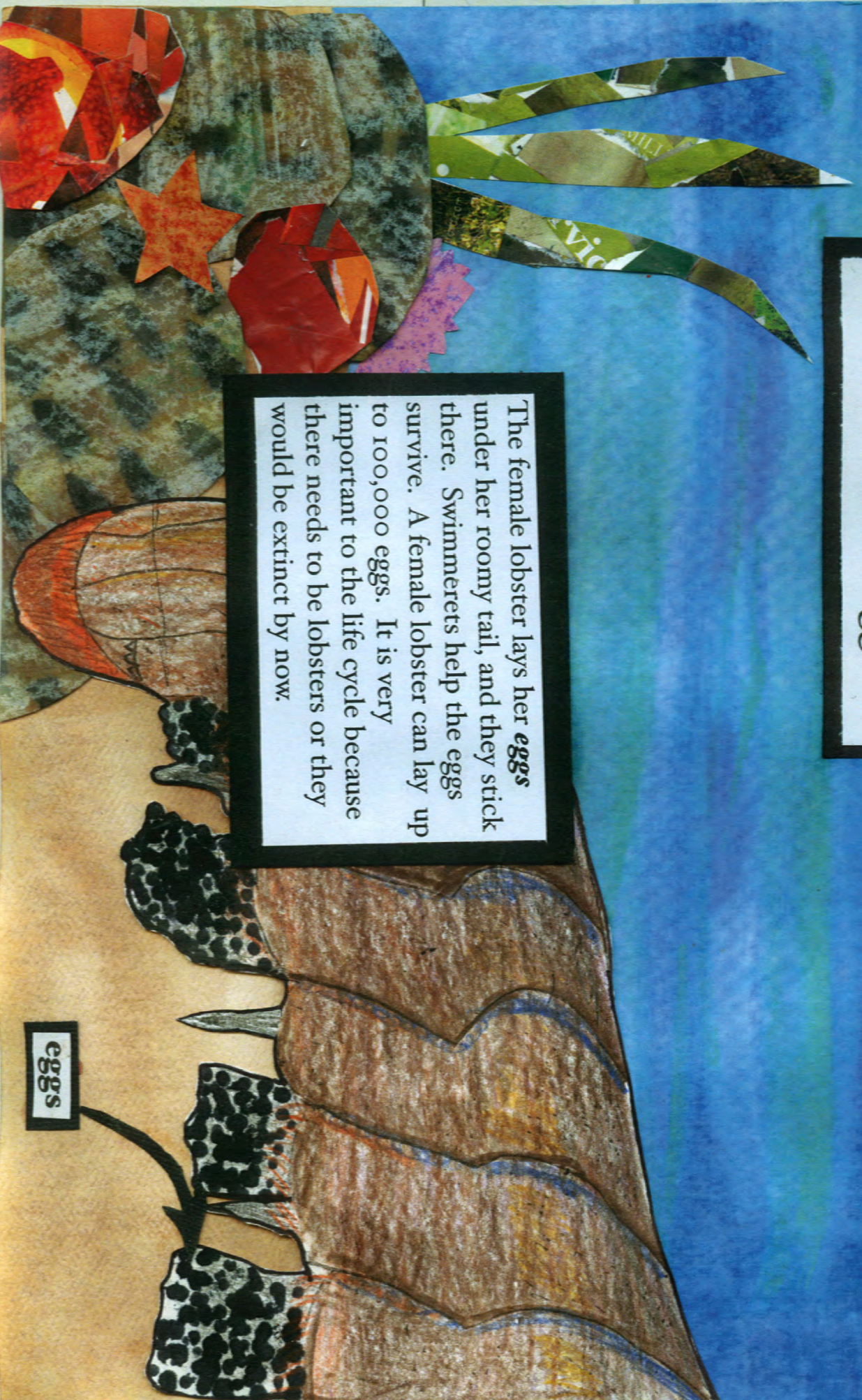


E

is for eggs.

The female lobster lays her *eggs* under her roomy tail, and they stick there. Swimmerets help the eggs survive. A female lobster can lay up to 100,000 eggs. It is very important to the life cycle because there needs to be lobsters or they would be extinct by now.

eggs



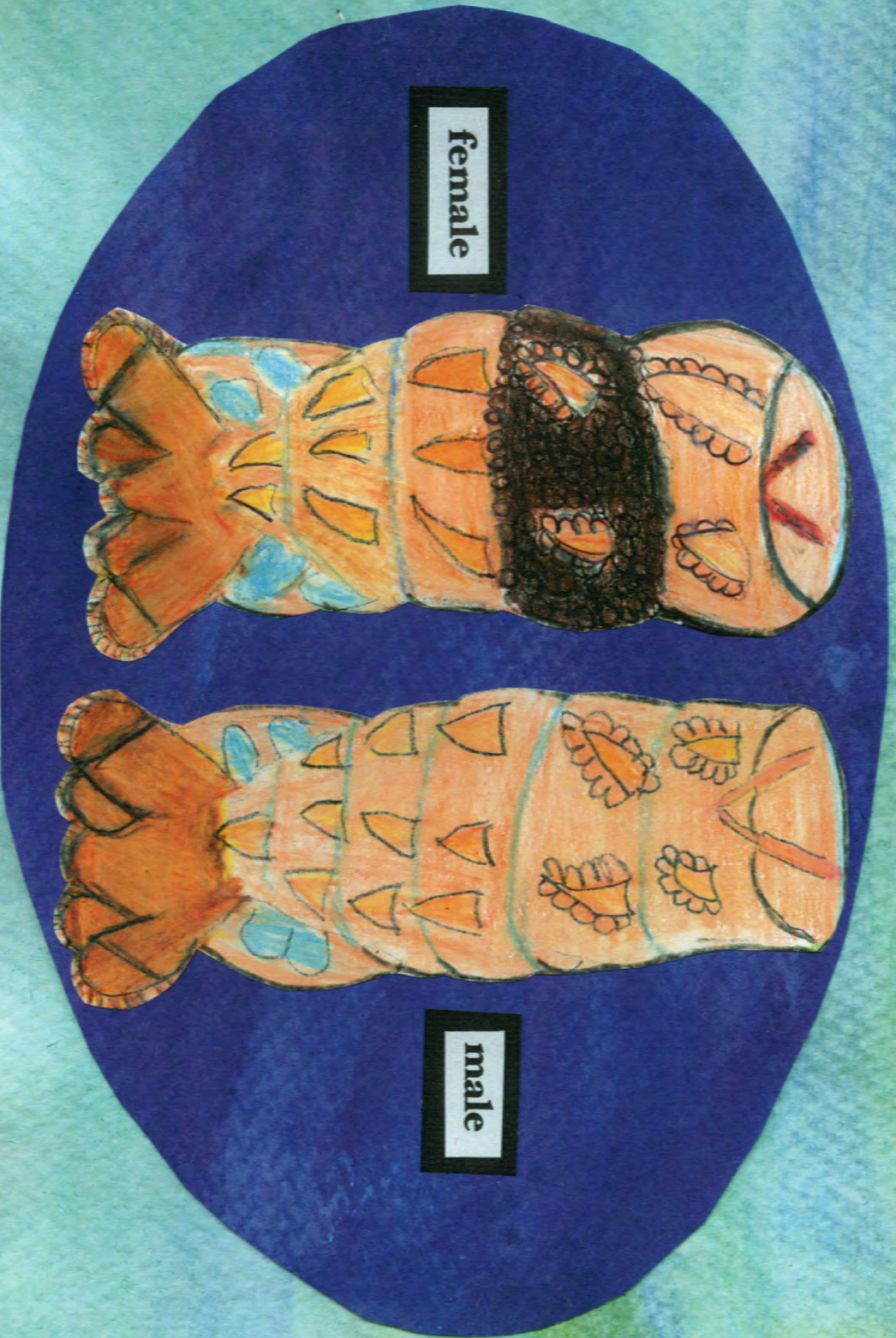
F

is for female.

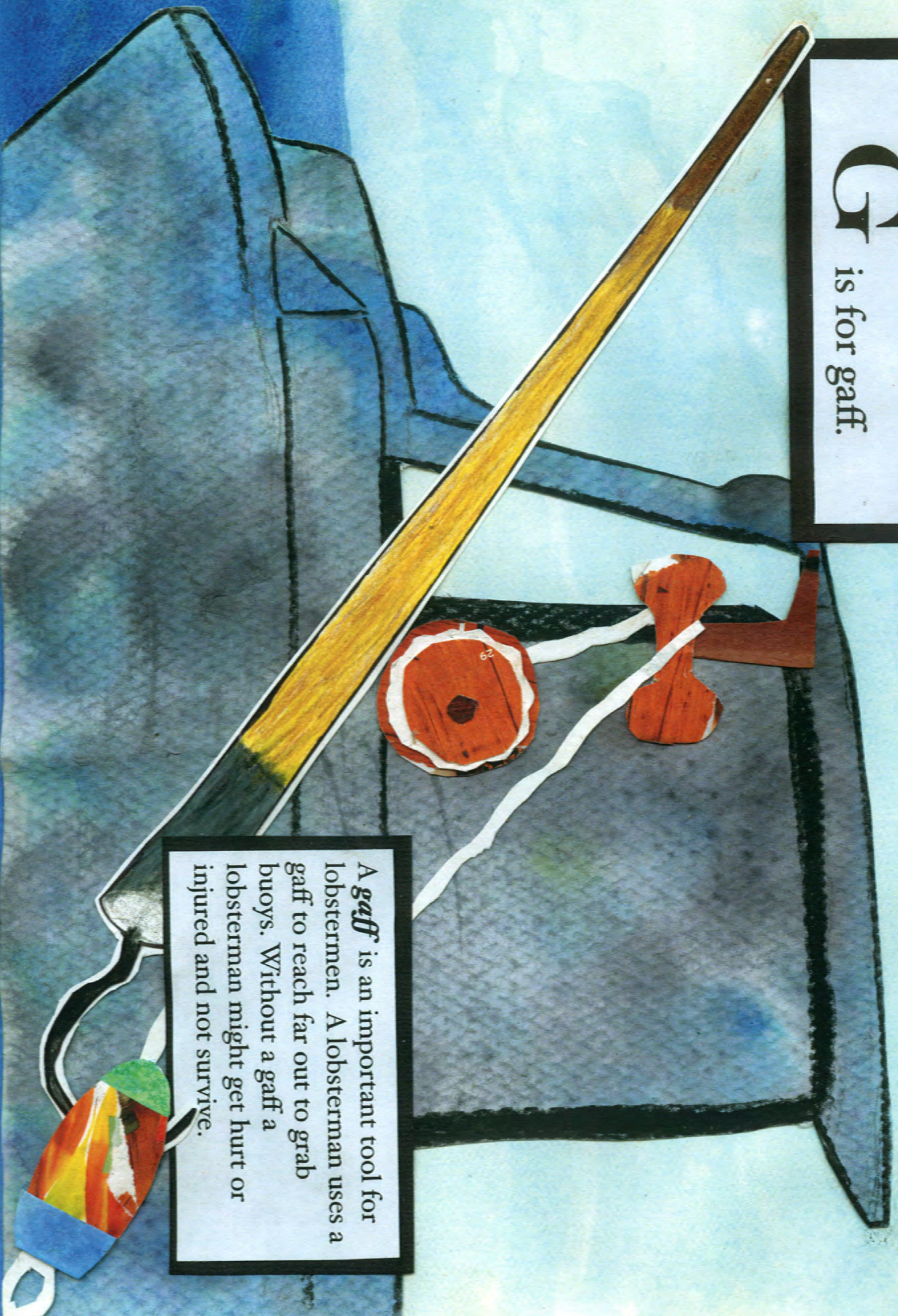
The first pair of a *female* lobster's swimmerets are soft and feathery, unlike the males which are hard and bony. They also have wider tails and smaller claws than males. Female lobsters can lay up to 100,000 eggs.

female

male

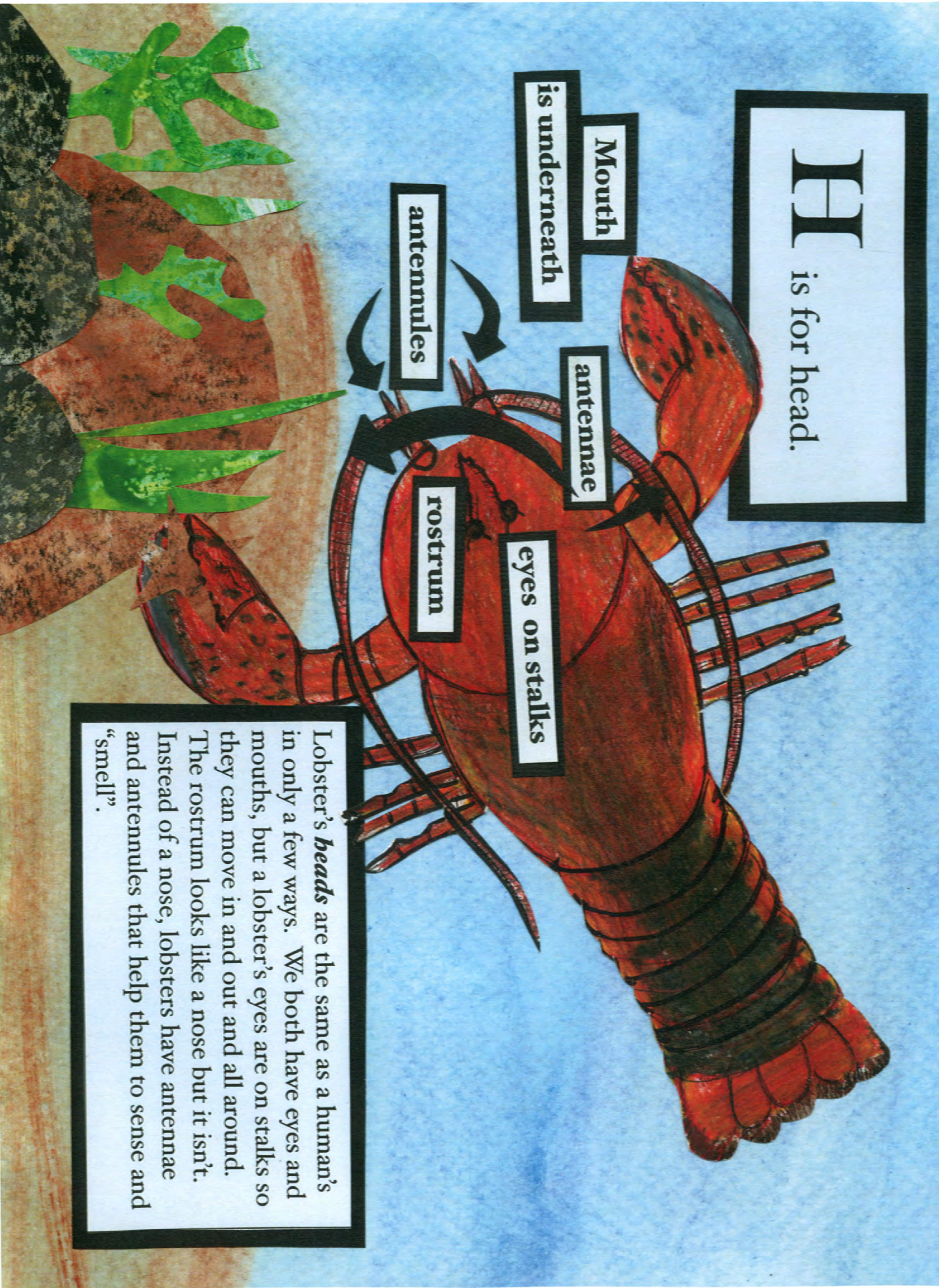


G is for gaff.



A ***gaff*** is an important tool for lobstermen. A lobsterman uses a gaff to reach far out to grab buoys. Without a gaff a lobsterman might get hurt or injured and not survive.

H is for head.



Lobster's ***heads*** are the same as a human's in only a few ways. We both have eyes and mouths, but a lobster's eyes are on stalks so they can move in and out and all around. The rostrum looks like a nose but it isn't. Instead of a nose, lobsters have antennae and antennules that help them to sense and "smell".

I is for injury.



Did you know that if a lobster is **injured** and loses one of its claws, the claw will regenerate (grow back)? Also a lobster's claw has to fall off in a certain spot in order to grow back. Another important fact is that if a huge sculpin bites off part of a lobster's shell it will grow back because the lobster will molt.

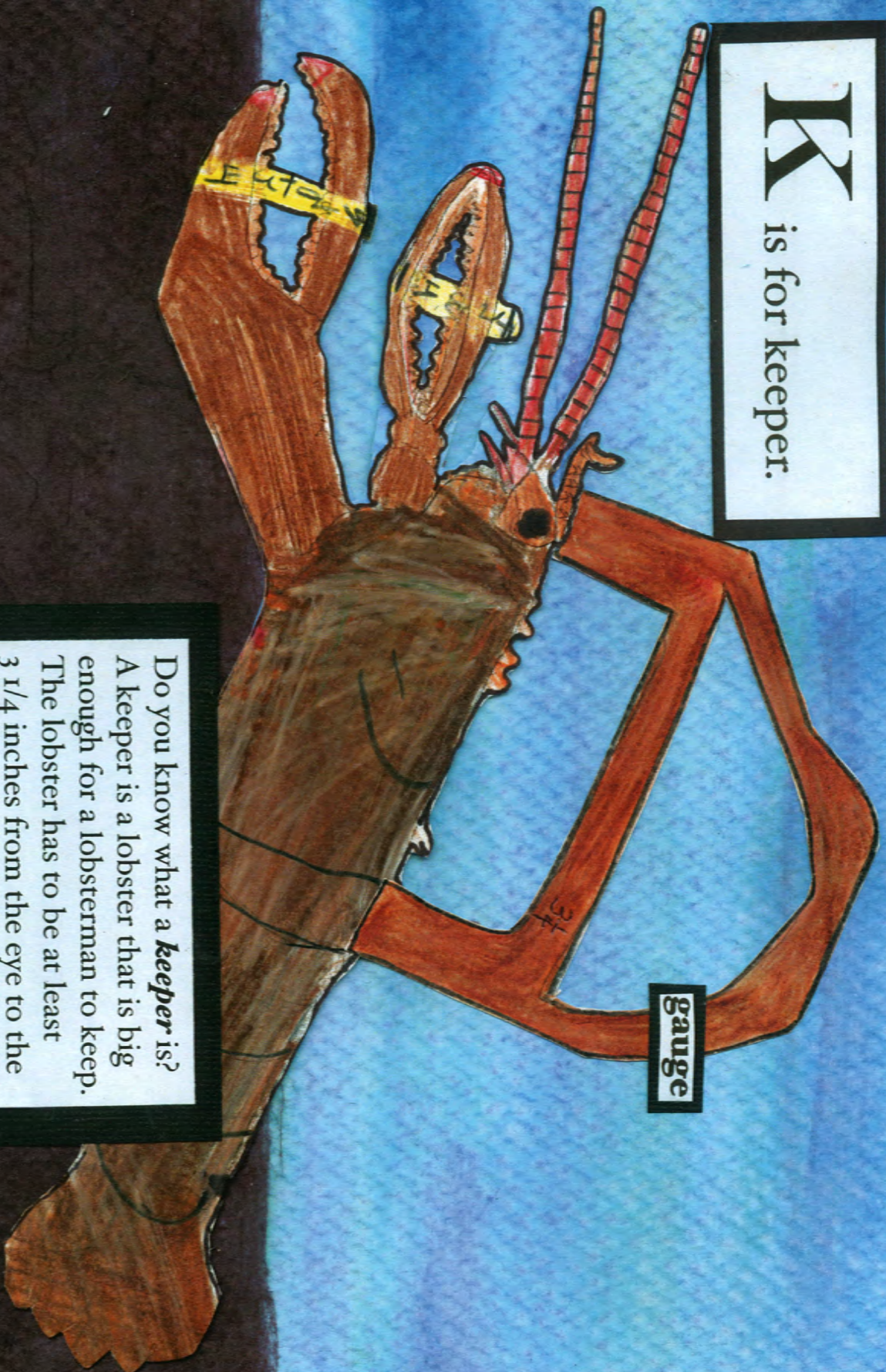
J is for juvenile.



A **juvenile** is the 3rd stage of a lobster's life cycle. It can be as small as a human's thumbnail. If you are a lobsterman you can't keep a juvenile until its carapace measures $3 \frac{1}{4}$ inches long. It has to be an adult lobster to keep. It's the law.

K

is for keeper.

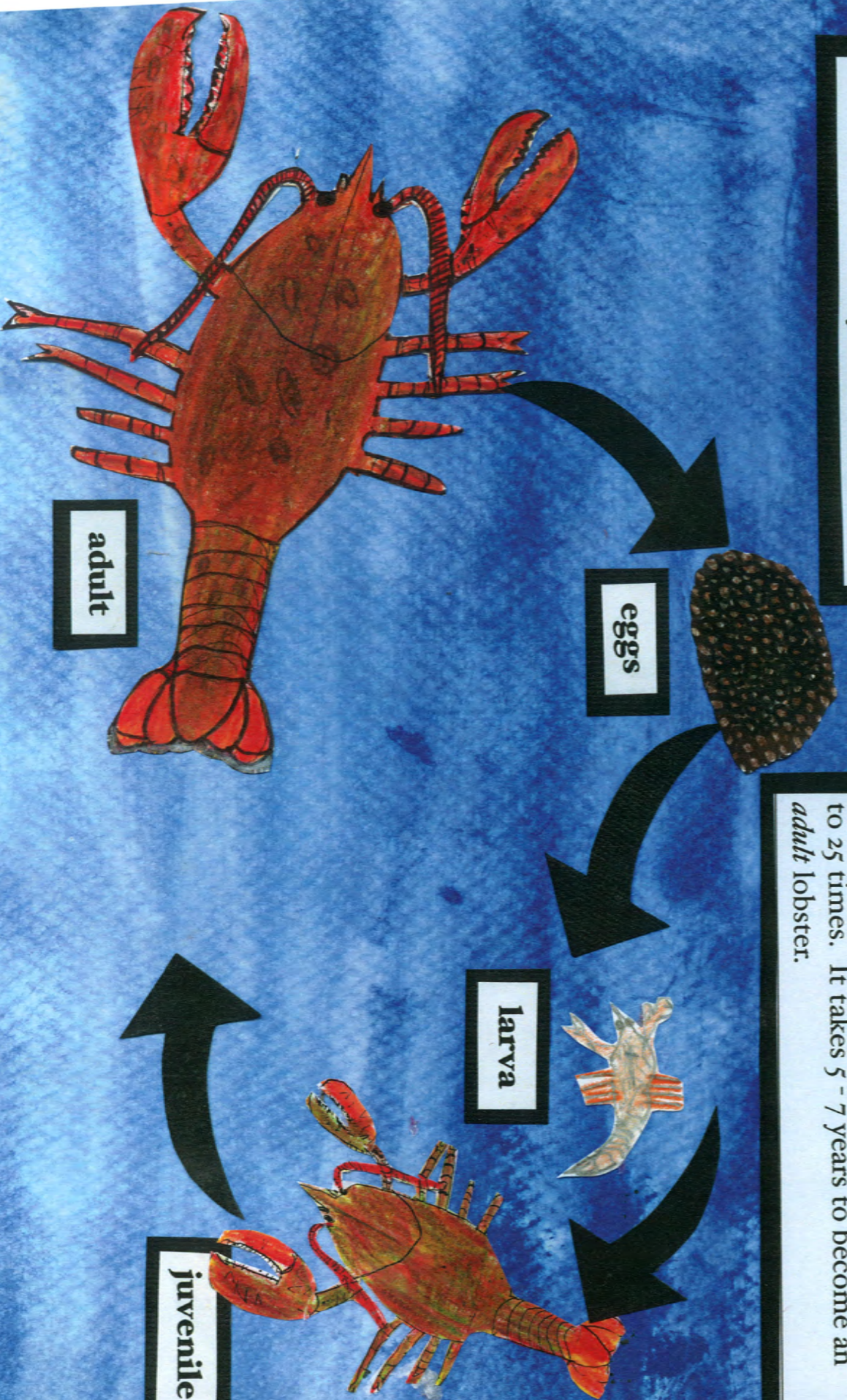


Gauge

Do you know what a *keeper* is?
A keeper is a lobster that is big enough for a lobsterman to keep. The lobster has to be at least 3 1/4 inches from the eye to the back of the lobster's body. It is against the law to catch tiny lobsters. It is important to throw the tiny ones back so they can survive to adulthood.

L

is for a lobster's life cycle.



eggs

larva

juvenile

adult

There are four stages of a *lobster's life cycle*. The first stage is the *egg* stage. The eggs stay on the mother for 9 - 12 months. When in the *larval* stage they spend their time swimming near the surface. A *juvenile* lobster can molt up to 25 times. It takes 5 - 7 years to become an *adult* lobster.

M is for molt.

Did you know a lobster can grow a new shell? **Molting** is important because when the lobster gets too wide for its shell it can pull its whole body out of the old shell. While it molts, the lobster's body is soft and it has to hide in the rocks from predators until it can grow a new shell. Finally it has its hard strong shell and now it can survive.



molted shell



N is for nocturnal.

Lobsters are **nocturnal**. **Nocturnal** means that lobsters are active and hunt at night like many other sea creatures. They don't like sunlight so they hide in the rocks during the daytime.



O

is for ocean.



Did you know it is important for lobsters to live in the Atlantic *Ocean*? Sometimes the ocean is a dangerous place because there are codfish in the ocean. The ocean is the habitat for lots of animals. The lobster has to hide in rocks to survive.



P

is for pincher.



The *pincher claw* is smaller than the crusher claw. It's used to tear a lobster's prey apart. Some common names for the pincher claw are *seizer claw* and *ripper claw*.

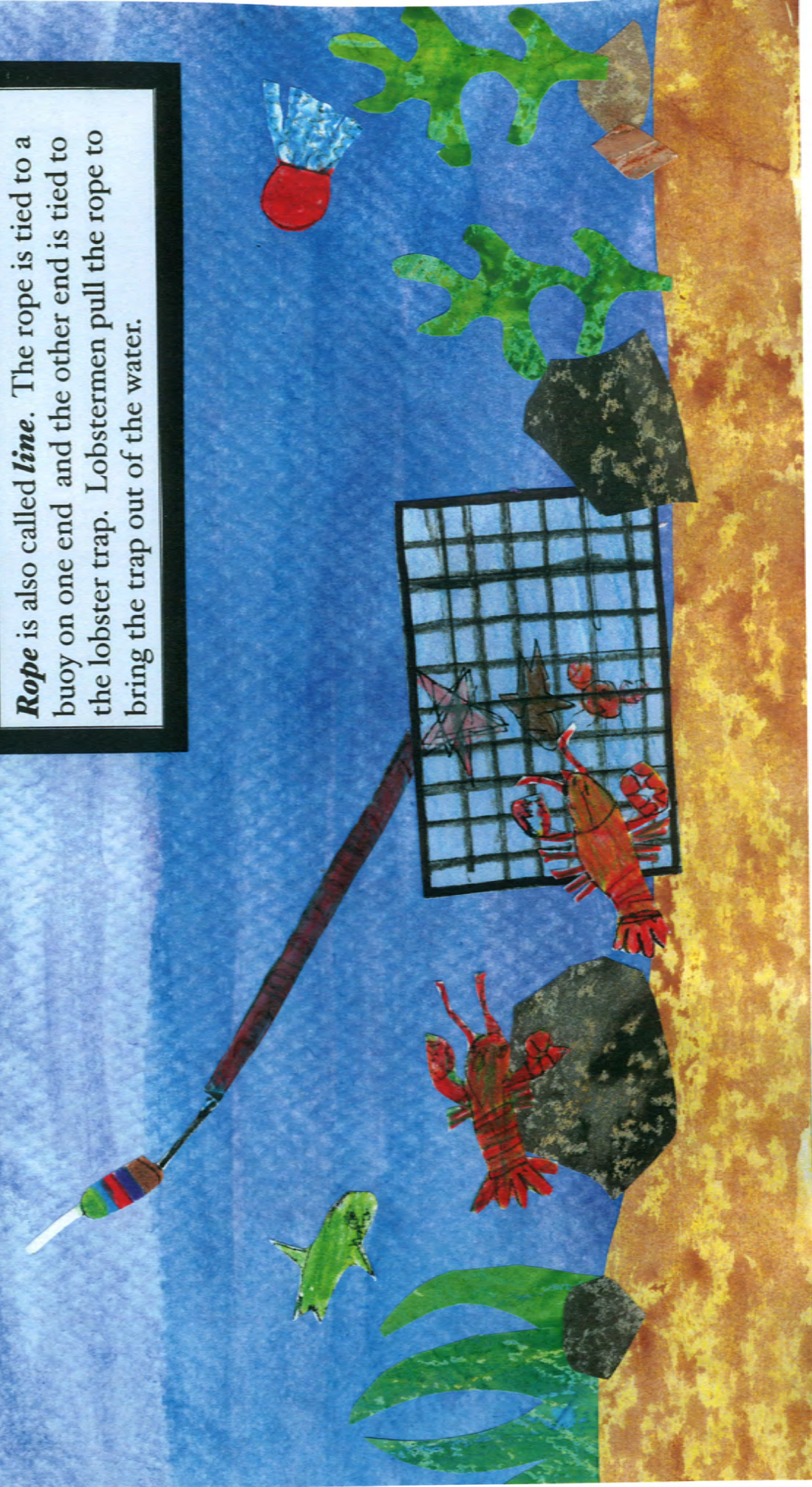


Q is for quiet.

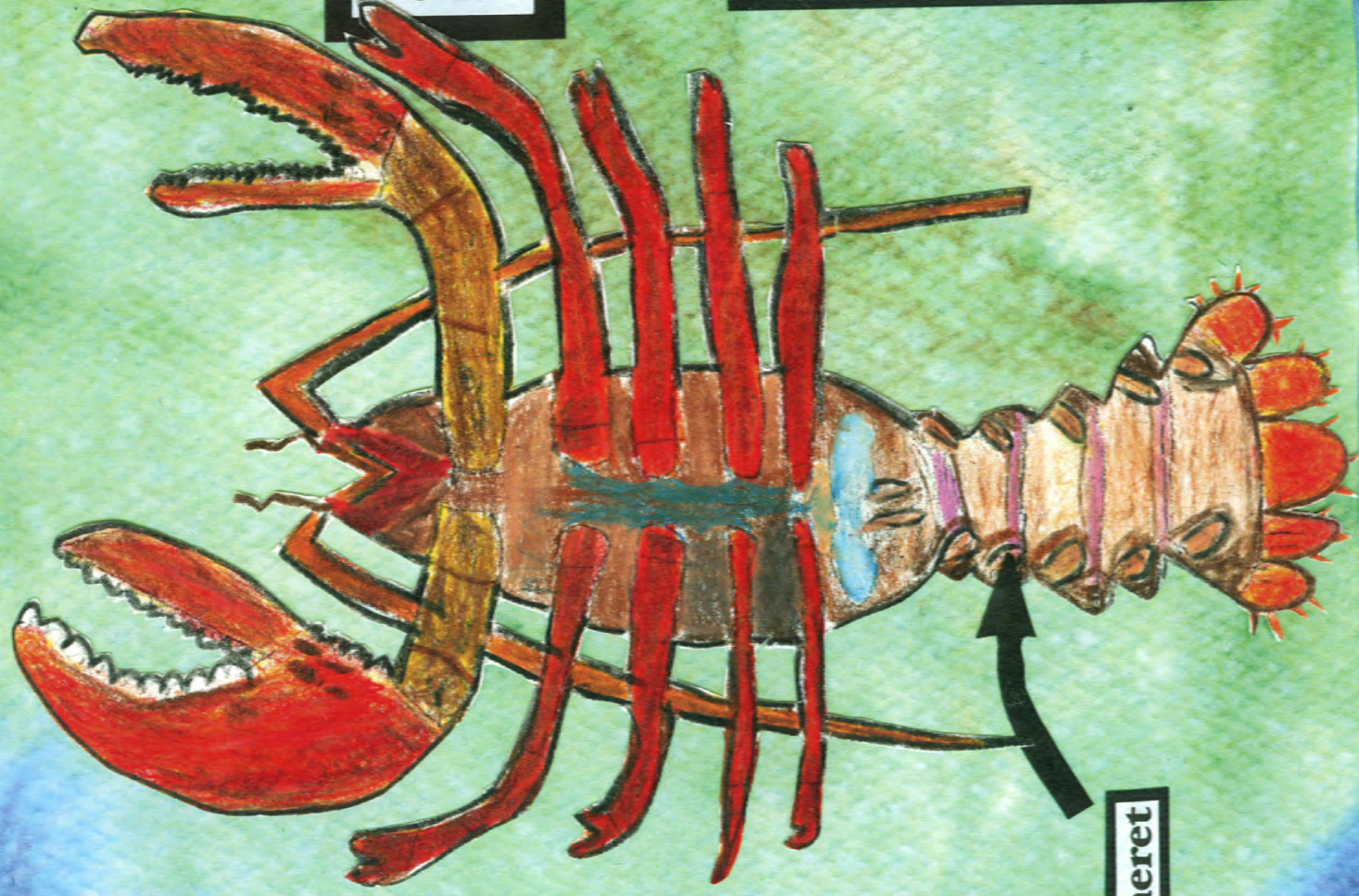


The ocean looks so *quiet* and peaceful. Deep down in the ocean small and large animals start to hunt for food to survive. The ocean is an important place for sea creatures.

R is for rope.



Rope is also called *line*. The rope is tied to a buoy on one end and the other end is tied to the lobster trap. Lobstermen pull the rope to bring the trap out of the water.



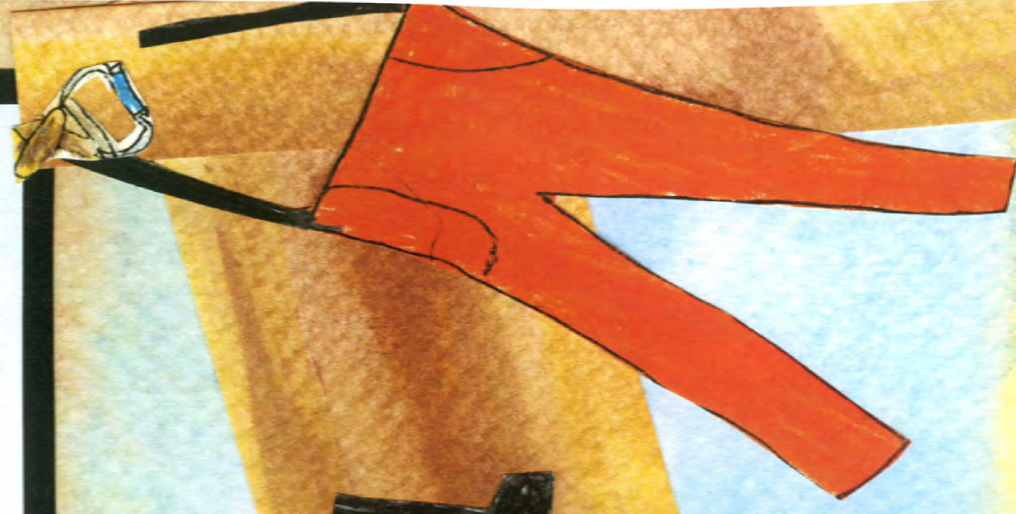
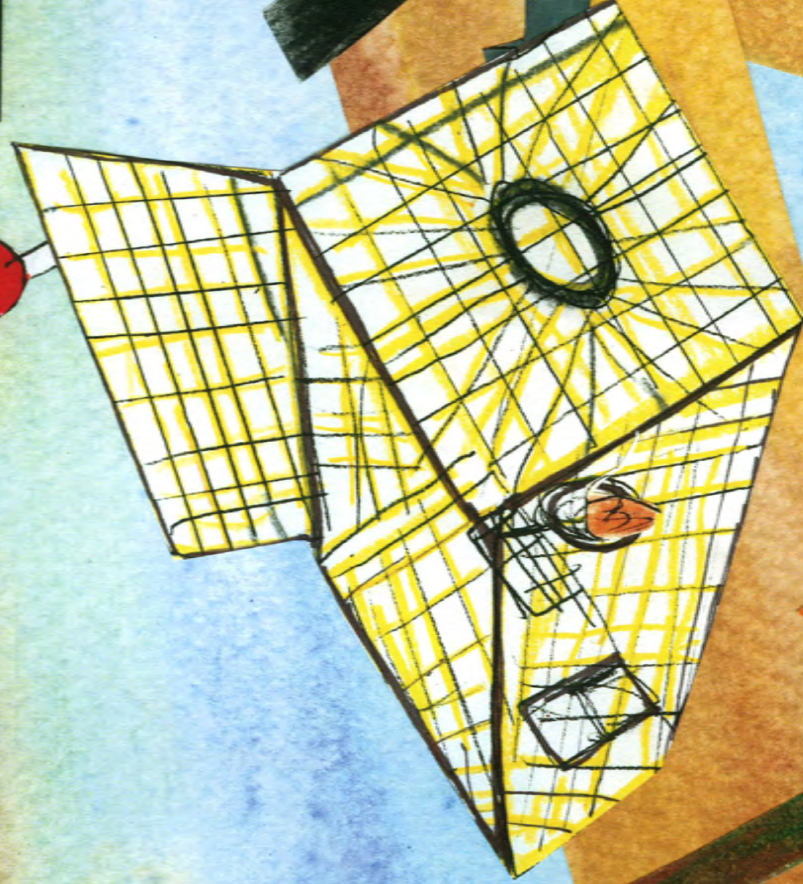
swimmeret

S is for swimmerets.

Have you ever heard of *swimmerets*? If you haven't this is the book for you. The swimmerets are under the tail and they help the lobster swim. A female lobster carries her eggs for 10 or 11 months under her tail. Swimmerets help hold the eggs. A lobster's swimmerets are important to keep the population growing and surviving.

T is for tools.

Tools help lobstermen catch lobsters. Some tools include a gaff, buoy, trap, banding tool, bait bag, and a hauler. Some tools help lobstermen to stay safe. They include gloves, boots, south-westerns (hat), and oilers (overalls).



U

is for underwater.



Lobstermen throw strong traps off the boat into the ocean. The traps sink **underwater**. The lobster senses the bait. It's important that the trap stays underwater because if the lobsters are out of the water for too long they can't breathe and won't survive.

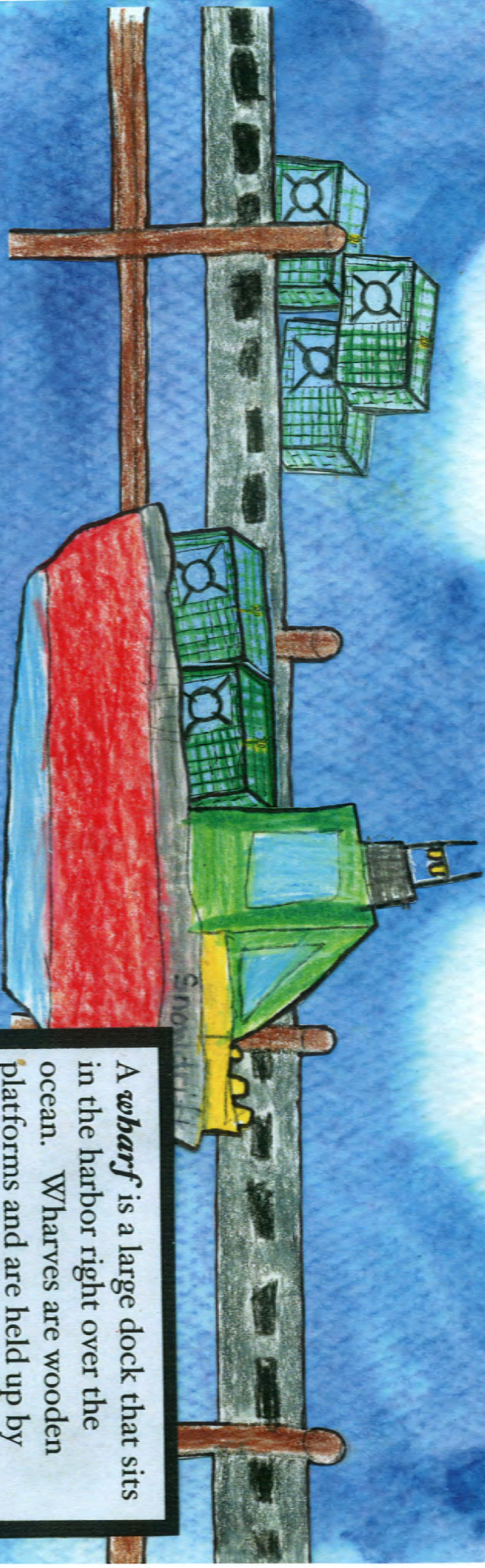
V

is for v-notch.



If a lobsterman catches a lobster with eggs it is called an egger. By law you must cut a **v-notch** in the second flipper from the right to show it is a breeder. A v-notch helps lobstermen know it's a breeding female and it cannot be kept. It must be thrown back.

W
is wharf.



A **wharf** is a large dock that sits in the harbor right over the ocean. Wharves are wooden platforms and are held up by wooden poles. Lobster traps can be stacked on a wharf. A wharf can be dangerous with so many boats loading and unloading lobsters and other things. Wharfs are important because that's where lobstermen can sell their lobsters and buy bait.

X
is for exoskeleton.



Lobsters do not have bones. They have hard **exoskeletons** on the outside of their bodies instead. The exoskeleton protects the lobsters from predators.

Y is for yummy.



Did you know that lobsters like to chew on sea snails, sea stars, sea urchins and more? It is very important for lobsters to get food to survive. I think that lobsters love all of these foods because they are **YUMMY!**

Z is for zipper-like teeth.



Both the pincher and crusher claws have small teeth like a **zipper**. The teeth are used to crush and tear their prey. When the claws are closed, the teeth-like bumps help keep the prey from getting away.

Ms. Keller's Class



Our Authors and Illustrators

- 
- A** is for antennae - Abdi
B is for bait - Askar
C is for crusher claw - Jack
D is for devour - Sophie
E is for eggs - Lucy
F is for female - Josephine
G is for gaff - Abdirahman
H is for head - Natasha
I is for injury - Kauther
J is for juvenile - Asha
K is for keeper - Hamdi & Abdullah
L is for lobster's life cycle - Kaine
M is for molt - Destinie & Anita
- N** is for nocturnal - Kyleigh
O is for ocean - Gudi
P is for pincher claw - Hannah
Q is for quiet - Zereda
R is for rope - Ali
S is for swimmerets - Kadin
T is for tools - Yzell & Tree
U is for underwater - Cora & Kaylei
V is for v-notch - Ema & Tyler
W is for wharf - Abdullah M. & Devin
X is for exoskeleton - Brayden & Toby
Y is for yummy - Nehema
Z is for zipper-like teeth - Abdithafid

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