Ms. Frizzle

Written by Kristin Earhart with consultation by Joanna Cole.

Based on The Magic School Bus books written by Joanna Cole and illustrated by Bruce Degen.

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Illustrated by Carolyn Bracken.

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It's fun to be in Ms. Frizzle's class.
She wears funny dresses.
She wears funny shoes.

HER BUS CAN BE FUNNY, TOO.

IT'S THE MAGIC SCHOOL BUS.
We have been learning about where different animals live. But today we are going to the pool.

I CAN'T WAIT TO GO TO THE POOL!

MAYBE THE FRIZ WILL GIVE US SWIMMING LESSONS.
Ms. Frizzle says it's time to leave.

COME ON, ARNOLD!

I HAVE A FUNNY FEELING ABOUT THIS.
Ms. Frizzle drives right past the swimming pool.
We drive for a long time.
When we stop, we are by the ocean. The water is coming in and going out.

WOW!

AT MY OLD SCHOOL, WE NEVER WENT TO A POOL LIKE THIS.

HIGH AND LOW
by Ralphie

The ocean water comes up to the land in waves. At times, the waves do not come up very far on the land. This is called low tide.

After low tide, the waves start to go higher. When they are at the highest point, it is called high tide.
As the tide goes out, we see more of the beach. Waves crash against rocks far away. Ms. Frizzle drives toward them.

MS. FRIZZLE, WHY DIDN’T WE GO TO THE POOL?

WE ARE GOING TO A POOL. WE’RE ALMOST THERE!

A WORLD OF WATER
by D.A.

At low tide, there are places in the rocks that hold ocean water. These places are called tide pools.
The Friz pushes a big button.
The bus starts to change.
It shrinks.
It grows eight legs and two claws.
Now it is the bus-crab!

I KNEW SOMETHING FUNNY WOULD HAPPEN!
The bus-crab climbs up on the rocks. It crawls until it comes to a hole. The hole is deep, but there is water at the bottom.

Class, this is a tide pool! According to my research, lots of plants and animals live here.
Our bus-crab walks on the dry rocks.
“What are those?” Wanda asks.
“Those shells are animals,” the Friz says.
“They are called barnacles.”

THOSE SHELLS ARE NOT MOVING.

THEY MUST BE DEAD.

JUST WAIT AND SEE!
The bus-crab jumps into the pool. When we hit the bottom, Ms. Frizzle tells us to get out. We start to change as soon as we leave the bus.

NOW WE ARE CRABS, TOO!

WE ARE HERMIT CRABS.
WE CAN BREATHE UNDERWATER.

CRABS HAVE GILLS, JUST LIKE FISH.

SHELL STANDS FOR SHELTER
by Keesha

Hermit crabs have soft bodies. They need shells to keep safe. They usually live in snail shells.
Ms. Frizzle tells us to explore. We walk around on our four front legs. Our back four legs stay inside our shell.

COME ON, ARNOLD!

MY SHELL FEELS TOO TIGHT.

ARNOLD, STOP BEING SO CRABBY.
Just then, a shadow falls over us.
All we can see is green.
"Dead man's fingers!" D.A. yells.
D.A. tells us not to worry. “Dead man’s fingers is not a monster,” she says. “It’s just a plant.” We feel better, but not for long.

THE TIDE IS COMING IN!

THE WATER IS MOVING!
IT'S HARD TO SEE!

WHERE DID ARNOLD GO?
At high tide... the tide pool comes to life!

WET IS BEST
by Wanda

At low tide, animals protect themselves from drying out. They close their shells and tentacles to keep water inside. When the tide rises, the animals open up again.
We have to find Arnold!
We do not see him,
but we see lots of changes.
The water rushes all around us. We see something float by. It is Arnold's shell!
WHAT HAPPENED TO ARNOLD?
We search all around.
We look up to the top of the pool.
The waves crash against the rocks.
The shells we saw before are now open.

ARE THOSE BARNACLES STICKING THEIR TONGUES OUT AT US?

ACTUALLY, THOSE LONG STRINGY THINGS ARE THEIR LEGS.

SUPER GLUE
by Keesha

Acorn barnacles make a special glue. They glue themselves to the rocks. The glue holds them in place so the waves won't carry them away.
MY RESEARCH SAYS THE BARNACLES USE THEM TO CATCH FOOD.

MY MOM WOULD NEVER LET ME EAT WITH MY FEET!
Then we see something bright and striped. It is heading toward us! It’s Arnold!

Arnold, we saw your old shell!

What happened?
THAT SHELL WAS TOO SMALL, SO I FOUND A NEW ONE!

MOVING ON UP
by Arnold

Hermit crabs grow. As a crab grows, its shell can get tight. When a shell gets too small, the crab moves into a bigger one.
We climb back on the bus-crab.
All at once, we are kids again.
We drive across the sand and watch
the tide go out.
I bet those barnacles are closing up so they stay wet.

I'm happy to be nice and dry.
We are happy to be back at school.
A lot happens in Ms. Frizzle's class,
but even more happens in tide pools.
Who knows what our next field trip
will bring?

MS. FRIZZLE HAS ON A NEW DRESS AGAIN.

DINO-MITE!
The Tide Zones

- **Splash Zone**
  - Usually dry

- **High Intertidal Zone**
  - Wet at high tide

- **Middle Intertidal Zone**
  - Wet and dry

- **Low Intertidal Zone**
  - Usually wet

- **Subtidal Zone**
  - Almost always wet
Ms. Frizzle's class is on its way to a pool—a tide pool. The kids spot everything from seaweed to seashells. But then they run into some real crabs!

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