

ELINOR WONDERS WHY

EWI Interstitial 122

Mz. Mole Story Time:

Daphnia
By Matt Giorgianni

Follows: Frozen Fish - When the pond freezes, Elinor and her friends become worried about how the fish who live there can survive the winter. With Farmer Bear's help they learn they're fine, resting in the cold water beneath the ice

Curriculum: The kids learn about Daphnia, the cute little water flea, that lives in ponds that dry up. They have special eggs which dry out and wait until the rains and streams fill the pond back up, only then do they hatch.

LS4. Understand that all animals and plants have a life cycle, can reproduce, and change and grow over time:

LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs:?

FIRST DRAFT: September 8, 2019

Open on MZ. MOLE, ELINOR, OLIVE, ARI and KIDS (as necessary). The kids are spread out, looking for something in different directions. The sun is overhead and it is hot.

Mz. Mole pulls out a book, and opens to a picture of a pond

2. INT. POND

9 MZ. MOLE 9
Don't you worry, those are some
very clever little animals. This is
one of my favorites, a Daphnia.

We see a daphnia bobbing in the water

10 ELINOR 10
I remember those, they're tiny
dancers!

11 MZ. MOLE 11
Yes! And Daphnia carry their babies
on their back.

We see little daphnia pop out from the clear carapace of the
mother, they then bob alongside her.

12 OLIVE 12
Even tinier dancers!

We pan out and are looking at CROSS SECTION of the pond with
a hot sun above. The level of the pond drops down and then
down again

13 OLIVE (CONT'D) 13
Oh no, their pond is drying up! We
should warn them.

14 MZ. MOLE 14
Not to worry, the momma daphnia can
sense when the pond is changing.
Instead of making more babies, she
makes a couple of eggs and then a
hard case to put them in.

The Daphnia has two eggs on her back but then her back
develops a hard brown case

15 OLIVE 15
Hey, I can't see inside!

We see the egg case fall off the Daphnia's back, the daphnia
swims away as the case falls to the bottom of the pond.

16 MZ. MOLE 16
That egg case is very special. It
keeps the eggs safe as the pond
dries up.

We see the level of the pond drop until there is just dry dirt with a brown egg case resting on it.

17 ELINOR 17

But there's no water! The babies
will need water if they hatch from
that egg.

18 MZ. MOLE 18

That's true. But only when the
spring rains fill up the pond again
do those little eggs start growing
again until, pop! Out they come

We see rain fill the water level back up. We zoom in closer to the brown egg case at the bottom. When Mz. Mole says "pop!" Two little daphnia pop out of the case and start bobbing around.

19 OLIVE 19
They're back!

MZ. MOLE

Indeed they are!

3. EXT. POND -- DAY

The kids are sitting around the dried area, looking hot and tired, except for Olive who is next to Mz. Mole

21 OLIVE 21

So there's a whole pond here just
quietly waiting for water so it can
come back to life?

22 MZ. MOLE 22
That's right! A little like your
friends over there

Mz. Mole smiles and winks at Olive and hold up a jug of water. Olive smiles, puts her trunk in the water, sucks it up and then sprays it in the air. The water falls on the other kids and they start <GIGGLING AND LAUGHING> and running around

Video of swimming:

<https://www.youtube.com/watch?v=3rOCjjD29SY>