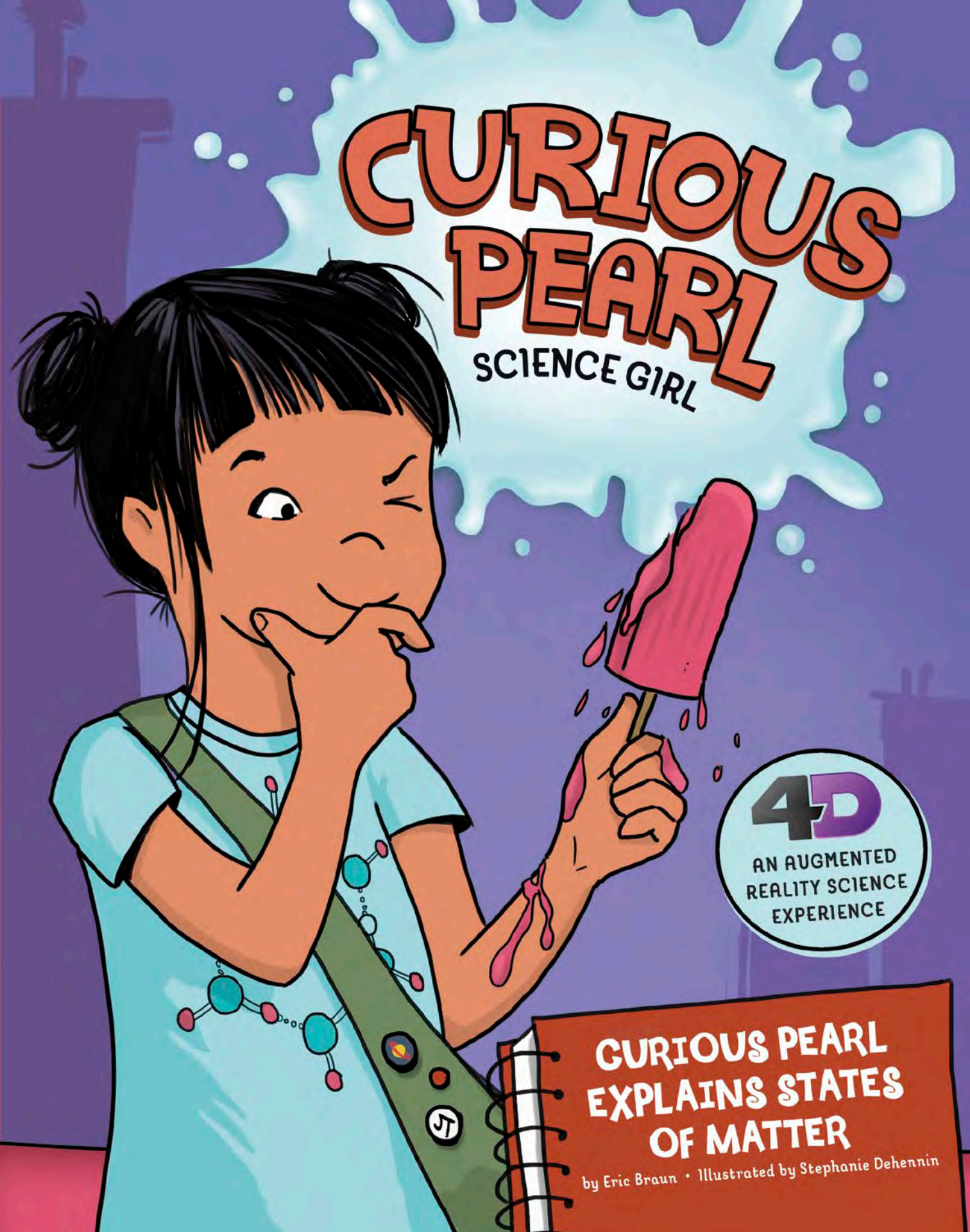
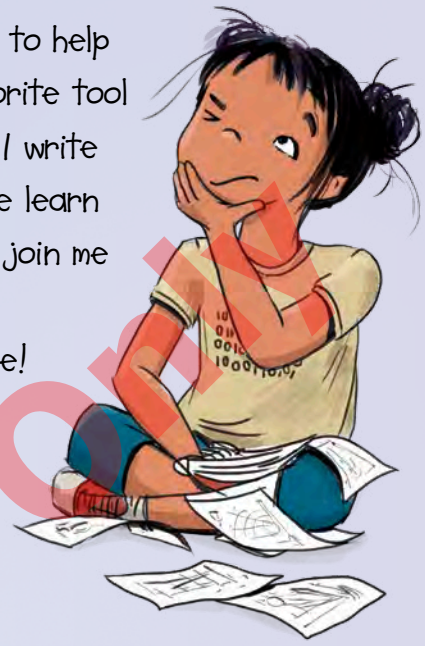

CURIOUS PEARL
SCIENCE GIRL
4D
AN AUGMENTED REALITY SCIENCE EXPERIENCE
CURIOUS PEARL EXPLAINS STATES OF MATTER
by Eric Braun • Illustrated by Stephanie Dehennin

Curious Pearl here! Do you like science? I sure do! I have all sorts of fun tools to help me observe and investigate, but my favorite tool is my science notebook. That's where I write down questions and facts that help me learn more about science. Would you like to join me on my science adventures? You're in for a special surprise!



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CURIOUS PEARL
SCIENCE GIRL

Isn't summer the best? There is lots of time for playing and riding my bike. I get to hang out with my little brother, Peter, too.

Peter likes summer as much as I do. And Peter loves ice pops. He loves them like the sky loves the stars. Like I love science!

Today Peter and I were playing outside with our friends. Suddenly, Peter screamed, "We need ice pops!"

"That sounds serious!" I told my friends. "I better find some ice pops."

I went inside to find an ice pop. But we didn't have any. I grabbed cheese and crackers. I got apples and peanut butter.

"Ice pops! Ice pops!" he cried.

"All right," I said. "Let's make some ice pops out of juice."

"We can't turn juice into an ice pop!" Peter said.

"Sure we can," I said. "It's just a matter of MATTER."

"What is the matter?" he asked.

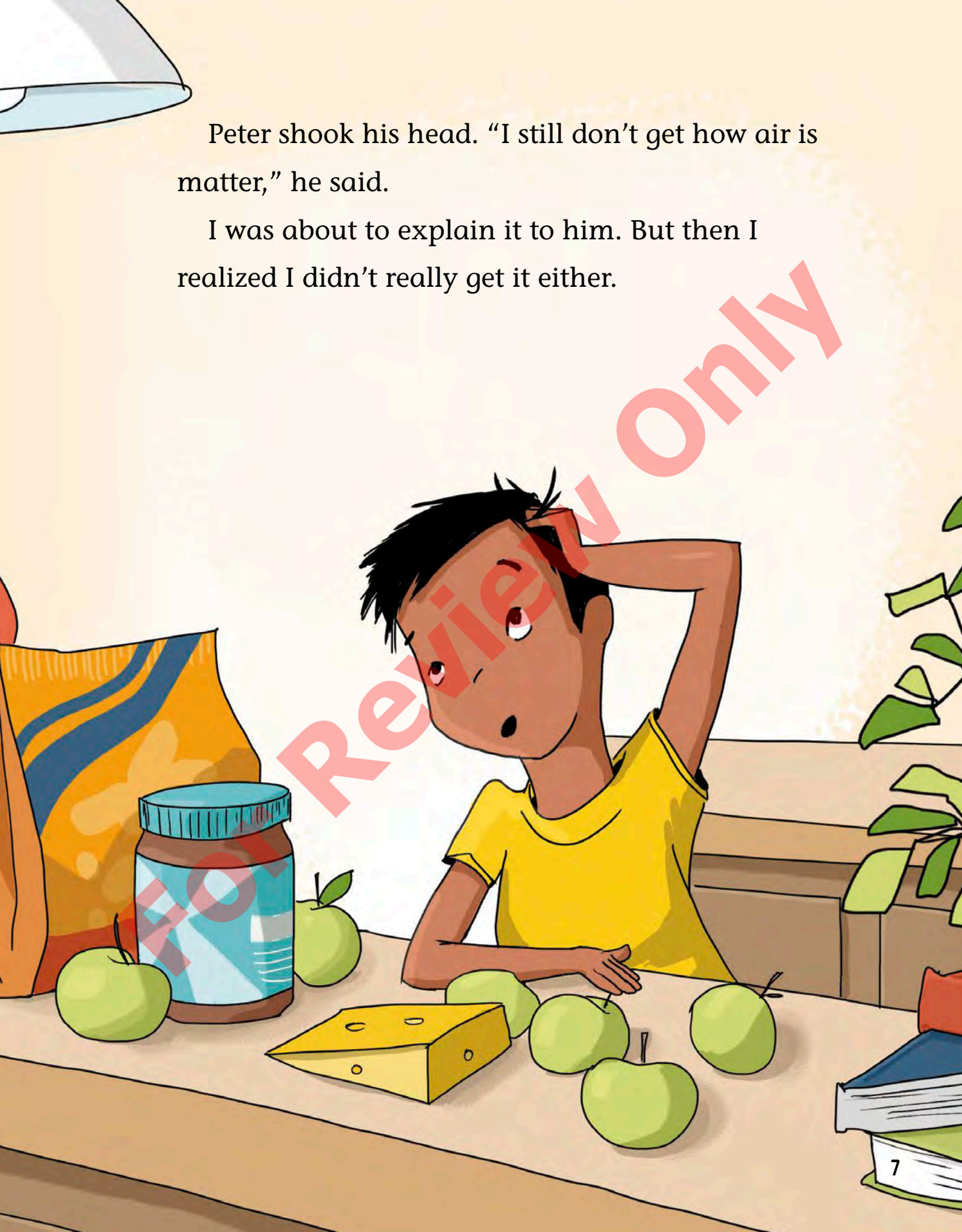
"Nothing is the matter," I said. "But everything is MATTER. Juice, ice pops, air, chairs, and even people are made of matter."

"Wait," Peter said. "Air? Air isn't made of anything."

"Yes, even air! It's a gas. Gas is one state of matter. Liquid is another state — like this orange juice. The other state is solid. This counter is a solid." I knocked my knuckles on it. "And so are ice pops."

Peter shook his head. “I still don’t get how air is matter,” he said.

I was about to explain it to him. But then I realized I didn’t really get it either.



SCIENCE ACTIVITY

If you like frozen treats, you can make ice pops like Pearl and Peter did. Or you can get a bit more interesting and make ice cream! This is a fun way to see liquid change into a solid.

What you need:

- 1 cup half-and-half
- ¼ cup white sugar
- ½ teaspoon vanilla extract
- ½ cup table salt or rock salt
- 2 cups ice cubes
- 1 sandwich-size zip baggie
- 1 gallon-size zip baggie

What You Do:

1. Pour the half-and-half, sugar, and vanilla into the small zip baggie. Zip it up tight so it doesn't leak!
2. Put the ice cubes and salt into the gallon baggie.
3. Put the smaller baggie inside the bigger baggie along with the ice and salt. Seal the baggie.
4. Hold the baggie by the zipper at the top, and shake it. Keep shaking it until the ingredients in the small baggie are solid. This will take about 10 minutes.
5. Remove the smaller baggie from the bigger one, and serve your ice cream!

If you like, you can add your extra treats into the mixture before you shake the ice cream. But doing that will make the ice cream take longer to freeze. You can also put your extras on top after serving.