The Great Scientific Cookie Caper

by Susan Yoder Ackerman
art by Paige Billin-Frye

"There's smoke pouring out of the oven!" Lucas yelled.

"Aaaa!" Grandma grabbed potholders and pulled out a smoking tray of blackened cookies. "I got distracted and forgot to set the timer again."

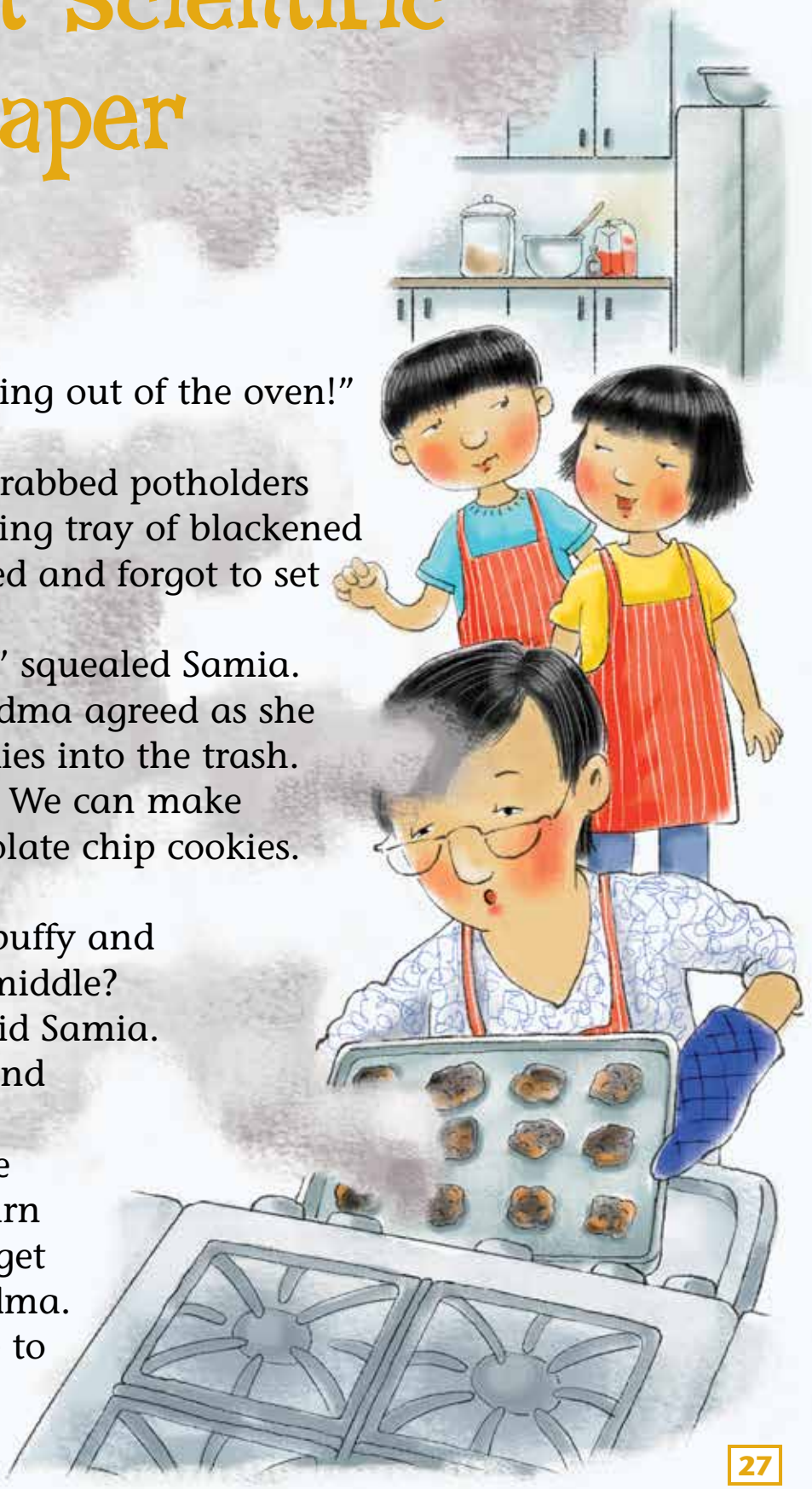
"We can't eat these!" squealed Samia.

"You're right," Grandma agreed as she scraped the burnt cookies into the trash. "But don't look so sad. We can make another batch of chocolate chip cookies. It won't take long!"

"Yum! Will they be puffy and soft and gooey in the middle? That's my favorite," said Samia.

"I like mine flatter and crisper," said Lucas.

"Well, I'm never sure how my cookies will turn out, especially when I get distracted," said Grandma. "I guess we'll just have to take our chances."



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Lucas thought for a moment. "Do we have to leave it to chance?" he said. "Is there a way to know which kind we're going to get? Like, scientifically?"

"Ooh, I bet the cookies will get gooey if we add soft stuff!" said Samia. "Maybe strawberry jam? Blueberry yogurt?"

"We could try that," laughed Grandma. "But hold on. There's still some dough in the bowl. Let's bake the rest of these first. We can experiment on the next batch."

"Scientifically," insisted Lucas. "And this time, I'll set the timer."

"OK, OK," said Grandma, sliding the cookie sheet into the oven. "Let's see, to be scientific, we'll make this batch our control sample, and then we'll change just one variable in the recipe at a time. That way, we'll know what causes any differences we get."

"What's a very—a variable?" Samia asked.

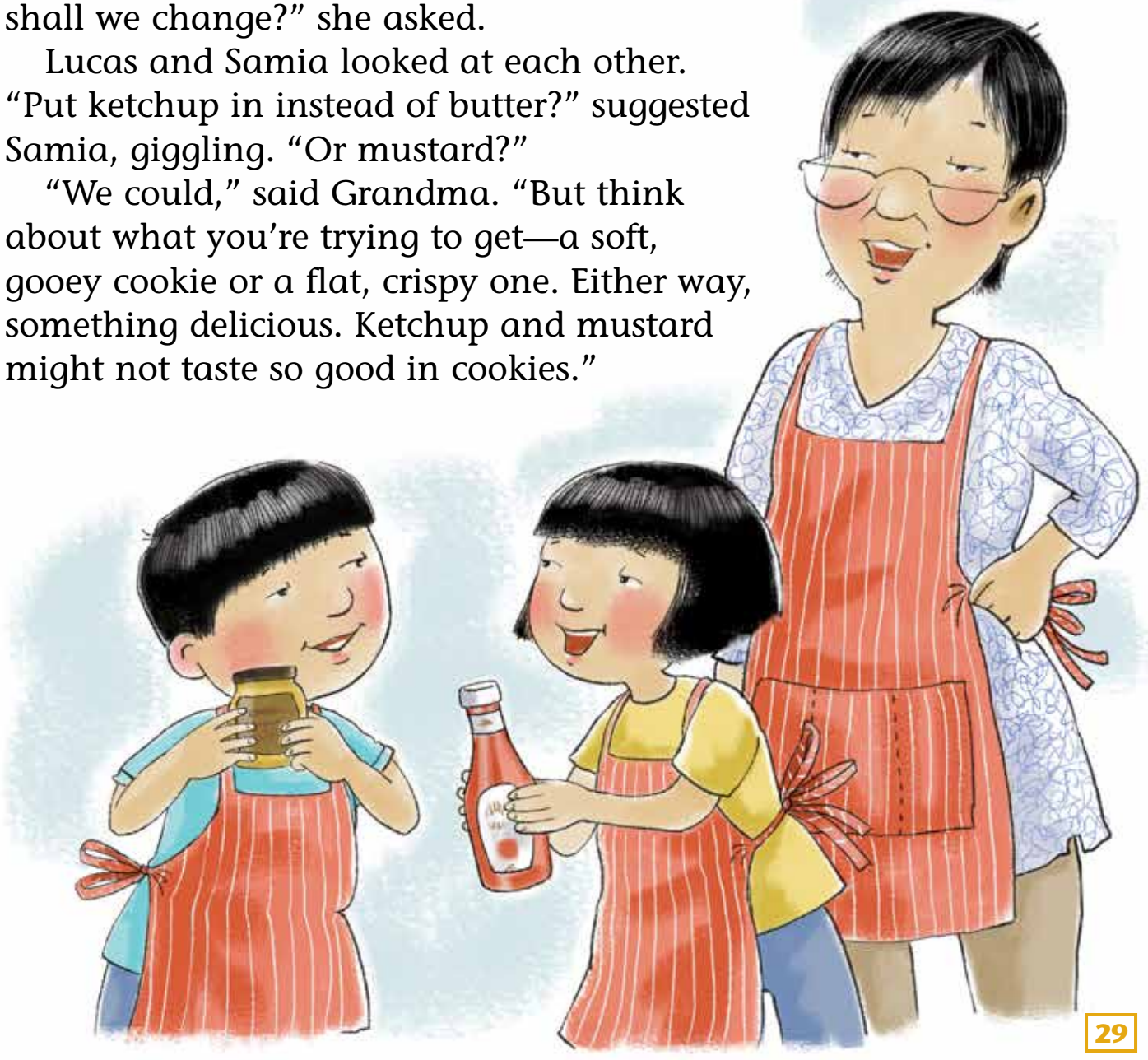
"Something different you try," said Grandma.

"I get it," said Lucas. "When we make another batch of cookies, we'll change something in the recipe. Then we'll compare those cookies to the ones we didn't change, the ones you called our control that you just put in the oven."

"Right," said Grandma. "We can change anything you want, but only one thing per batch. That's the variable. If the cookies come out different, we'll know exactly why. So what shall we change?" she asked.

Lucas and Samia looked at each other. "Put ketchup in instead of butter?" suggested Samia, giggling. "Or mustard?"

"We could," said Grandma. "But think about what you're trying to get—a soft, gooey cookie or a flat, crispy one. Either way, something delicious. Ketchup and mustard might not taste so good in cookies."



Samia stuck both hands deep into the flour canister and wiggled her fingers. "Ooh, flour feels so silky and fluffy. Let's try adding more flour to the recipe. It might make the cookies soft."

"All right, we'll increase the flour to two cups," said Grandma.

The children took turns mixing the ingredients. This dough was harder to stir than the first batch and seemed dry, especially after they added the chocolate chips.

The timer dinged. "The control cookies are done to perfection!" said Grandma, removing them to a rack.

"They're not puffy and gooey, but they're not flat and crispy either," said Lucas. "Kinda in-between. Can we eat them?"

"Let them cool while we bake Samia's batch with the extra flour," said Grandma as she placed a tray in the oven. "Besides, we need to get to work on your cookies."

Lucas set the timer and said, "What can we change to get crispy cookies, Grandma?"

Grandma's control cookie

"I think something about the butter. Let's try melting the butter in the microwave, then dissolving the sugar in it," she answered.

While Samia's cookies were baking, Lucas mixed the third batch of cookies. The dough was soft and easy to spoon out onto the cookie sheet.

Ding! Grandma hurried to take Samia's batch out of the oven.

"Ooh, they stayed high and puffy. They didn't spread out!" Samia squealed.

Samia's cookie

Lucas's cookie

Later, when Lucas took the melted-butter cookies out of the oven, he was pleased too. "They're flat and crisp and crackly on top—just like I like them!"

"A success!" said Grandma.

"What's another very—variable—we could change?" Samia asked.

"We could try all brown sugar or all white sugar instead of using both," Grandma said. "Or see if baking powder—"

"Grandma, you're out of chocolate chips," Lucas interrupted, looking in the pantry.

"Ah, so that puts an end to our scientific work for today," Grandma said.

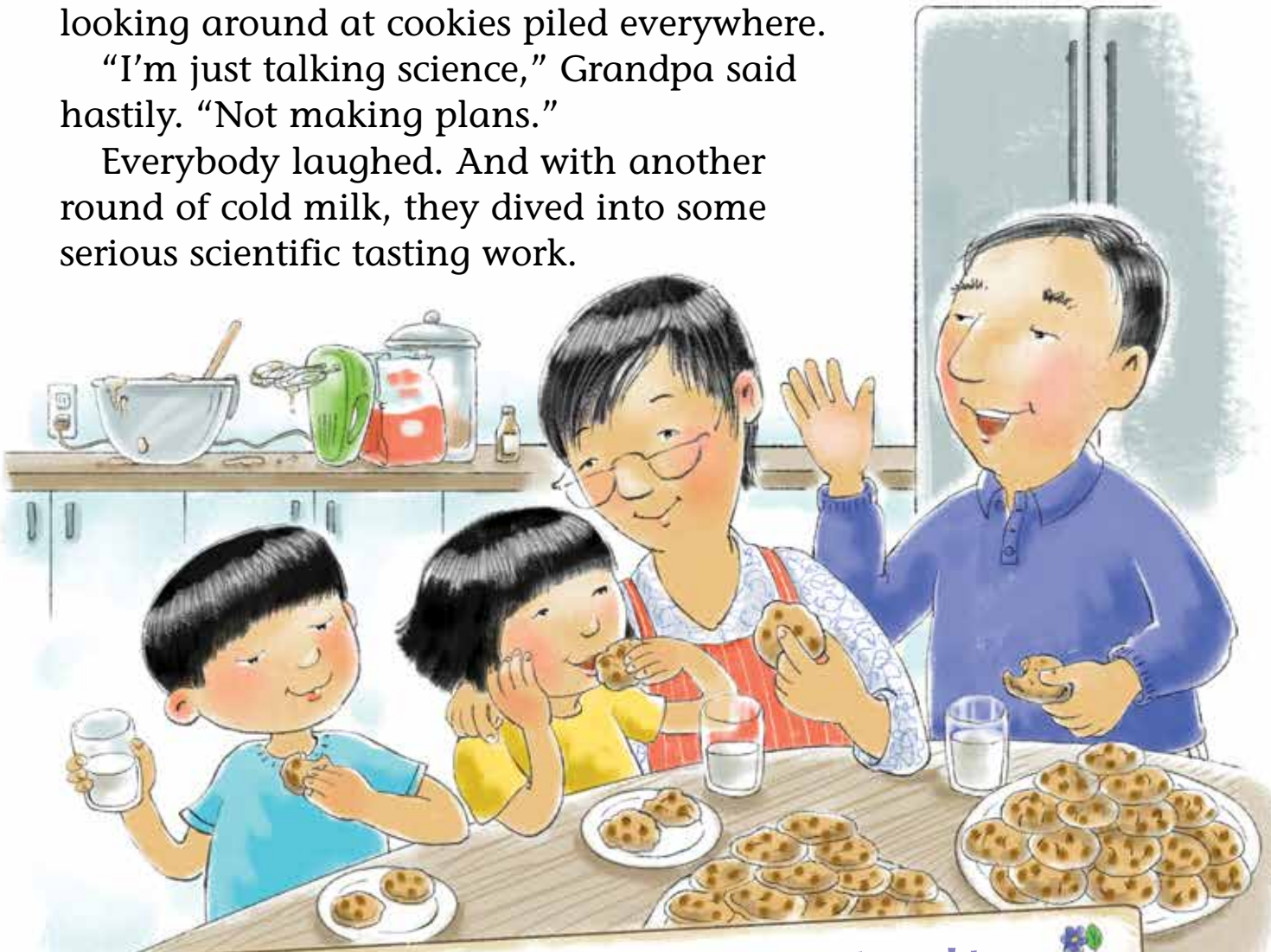
"Except for tasting!" Samia said.

Grandpa joined them to munch on warm cookies and to hear all about controls and variables. "You know," he told the children, "to be really scientific, you should repeat your experiment tomorrow the very same way to see if you get the very same results."

"Do it again tomorrow?" asked Grandma, looking around at cookies piled everywhere.

"I'm just talking science," Grandpa said hastily. "Not making plans."

Everybody laughed. And with another round of cold milk, they dived into some serious scientific tasting work.



Grandma's Chocolate Chip Control Cookies

(Makes 24 to 30 cookies)

Ingredients:

½ cup butter (1 stick), softened
6 tablespoons granulated sugar
6 tablespoons brown sugar (packed)
½ teaspoon vanilla extract
1 large egg
1 cup plus 2 tablespoons flour
½ teaspoon baking soda
½ teaspoon salt
1 cup chocolate chips

Preheat oven to 375°F.

Beat butter, both sugars, and vanilla in a large bowl until smooth. Add egg, and mix well. Add flour, baking soda, and salt, mixing until just combined. Stir in chocolate chips. Drop rounded tablespoonfuls of dough about 2 inches apart onto ungreased baking sheets.

Bake cookies 9 to 11 minutes until golden brown. Cool on baking sheets for 2 minutes, then transfer to wire racks to cool completely.