“I don’t know what I should bring on the class trip,” Ada said, tossing her backpack down.

“Have you checked the weather?” asked Ada’s grandma.

“What do you mean?” Ada asked.

“When you are trying to decide what to wear or what to pack for a trip, it helps to look at a weather report,” her grandma explained.

“What’s a weather report?” asked Ada.

Grandma handed Ada her phone, where a weather report for the day of the class trip was on the screen. Ada looked at the information. “Weather reports,” her grandma said, “tell us what weather scientists think the weather will be like on a certain day. Weather scientists measure the air and use computers to predict the weather. It’s called forecasting.” Grandma pointed to the phone in Ada’s hand. “What can you learn from this weather report?” she asked.

“Well,” Ada replied, “this looks like it’s saying that the day will start off sunny. It will be warm in the morning.”

“What do you think you should bring for sunny, warm weather?” Grandma asked.

Ada looked around her bedroom. “If it’s sunny, I might want to wear my sunglasses,” she said. Ada picked up a pair of sunglasses from the shelf next to her bed and put them in her backpack.

“Remember, Ada. The weather can change fast. Forecasts aren’t always perfect. You should check the weather report again between now and the day of your trip,” Grandma said.

Two days later, Ada was at the Smithsonian Environmental Research Center with her classmates. They watched dark clouds move across the Chesapeake Bay. A storm was coming.

“Alright, let’s circle up,” said Ada’s teacher. She had to yell to be heard over the wind. Waves splashed against the dock. The dock rocked gently under the students’ feet. Lightning flashed across the dark, stormy sky. “It looks like a storm is heading our way,” Ada’s teacher said. “That means we will have to find shelter until it passes. Who can use their trail map to find the closest building? We will go there to stay safe until the storm is over.”

The students reached into their backpacks for their trail maps. Thunder rumbled in the distance. Dowan spoke up. “It looks like the Reed Education Center is the closest building. We should go there,” she said, pointing back along the long dock toward the shore.

“Good plan, Dowan,” said Ada’s teacher.

“Mrs. B? I think we should put on our raincoats,” Ada said to her teacher.

“Good idea, Ada,” said Mrs. B. “Let’s get our raincoats on. Then we will head to the education center. We can eat a snack there while we wait out this storm.”
Ada pulled her raincoat from her backpack. Her sunglasses fell onto the dock. She thought back to the morning. That morning the warm sun shined on her back as the class walked along the water. Ada remembered being surprised at how fast it got warm outside. Now, in the afternoon and she was putting on a raincoat with a thunderstorm headed toward her class.

As she slipped her raincoat on, thunder sounded again in the distance. It was slightly louder than before. Ada pulled her hood up just as the rain began. The class headed back along the dock toward the protection of the education center. Ada felt the wind pick up. Rain blew onto the backs of her legs. The cool water ran down her calves and soaked into her socks. The students walked faster. Their footsteps sounded like drums on the dock’s planks. Ada felt a sudden chill. The temperature had dropped. The afternoon had been warm. The air had been thick and humid. Ada refilled her water bottle twice. Both times she was happy she remembered to pack it. But now, as the storm approached, it was almost cool outside. Her grandma had been right. Weather can change fast.

The class burst through the doors of the education center. They stood just inside the glass doors, watching as the rain pour down. It created puddles in the parking lot. Trees waved in the wind. Lightning flashed.

“Good thing we prepared for different kinds of weather.” said Ada, watching in awe as the storm blew on.