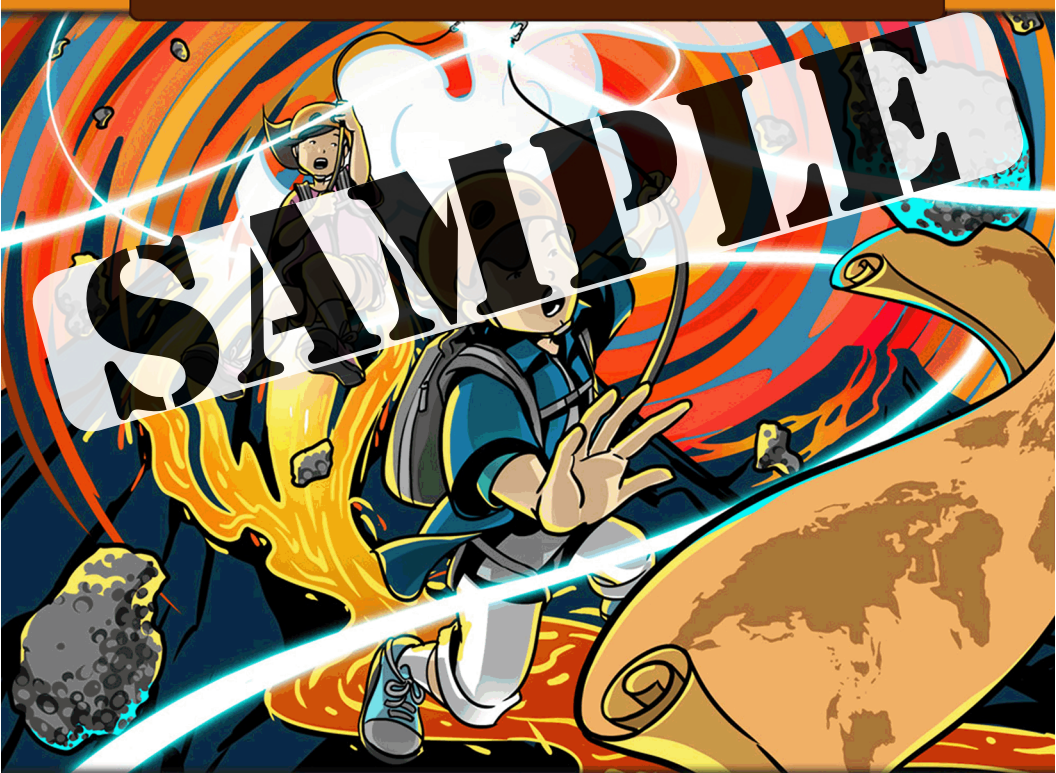


THE SASSAFRAS SCIENCE ADVENTURES

VOLUME 5: GEOLOGY



JOHNNY CONGO &
PAIGE HUDSON

THE SASSAFRAS SCIENCE ADVENTURES

VOLUME 5: GEOLOGY {SAMPLE}

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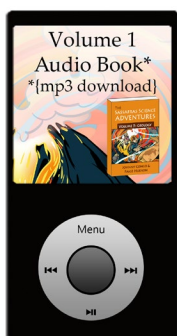
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TOPICS COVERED IN THIS VOLUME

The Sassafras Science Adventures Volume 5: Geology covers a variety of earth science topics such as:

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- Layers of the Earth
- Volcanoes
- Geysers
- Igneous Rock
- Basalt
- Pumice
- Fjords
- Glaciers
- Meteors
- Metamorphic Rock
- Gneiss
- Maps
- Latitude and Longitude
- Erosion
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Check out *The Sassafras Science Adventures Volume 5: Geology* audiobook! Listen to the talented Christine Myrick take you on a journey to Norway, Antarctica, and Australia with the Sassafras Twins as they study rocks, fjords, caves, and so much more from their fascinating local experts.

THE SASSAFRAS SCIENCE ADVENTURES

CHAPTER 1: THE RETURN OF SUMMER

Meeting for the first time . . . again

They were nervous. They weren't sure why they were so nervous, but they were. In fact, they were so nervous they could feel their heartbeats speeding up.

Twelve-year-old Blaine Sassafras and his twin sister, Tracey, sat on a short old and rusty metal file cabinet down in their Uncle Cecil's messy and muddled basement. Their uncle had called them to let them know he was on his way home and that he had someone with him he wanted Blaine and Tracey to meet.

"Man, I'm nervous!" Blaine exclaimed. "Why am I so nervous? It's not like we don't know her."

Tracey exhaled and nodded. "I'm nervous too, Blaine. Maybe it's because we sorta-kinda don't know her anymore. I mean, not really. Or do we?"



The Sassafras twins didn't know what to think. They had met the person that was soon to be walking through the basement door with their uncle multiple times, but as far as that person recalled, she had never met the twins before. And this fact was downright confusing to the twelve-year-olds.

The twins began mulling over the events that had brought them to this place. About a month ago, Blaine and Tracey had finished up their school year. They had both gotten straight A's—well almost. They had both gotten A's in every subject except science. They had failed that subject. And because of that, their parents had sent them to their Uncle Cecil's house for the summer instead of their desired summer destination: Camp Zip-Fire, where all their friends were now.

As Cecil was a pseudo-famous research scientist, the plan was for him to immerse the children in science all summer long. Immerse them he had, but it was not the boring punishment the twins had expected. Uncle Cecil had exposed them to a world of scientific adventures that were beyond their wildest dreams. The adventures they had lived through were much better than anything they could have experienced at Camp Zip-Fire!

Uncle Cecil, along with his prairie dog lab assistant, President Lincoln, had invented invisible zip lines that could be ridden at the speed of light to any destination on the planet. When Uncle Cecil had first proposed invisible zip-line travel, the twins had scoffed at the lunacy of the idea. But now, only a month in, Blaine and Tracey Sassafras were one hundred percent believing, science-loving, adventure-seeking, invisible-zip-line-riding experts. They had been to over thirty different locations around the world! The twists and turns of the learning had been altogether fulfilling. Their knowledge of science had increased, and so had their level of maturity and their tenacity.

At all of the worldwide locations, a local expert would help them study the prescribed scientific topics. Out of all the cool and

amazing science-loving people they had met, Summer Beach was the twin's favorite. They had first run into her in her underground lab in Alaska while studying zoology. Summer had the enthusiasm and vigor of a classroom full of excited children, and her overflowing joy was infectious.

While studying anatomy, the Sassafras had gotten the opportunity to zip down to her lab again. This time, they had been chased by robot squirrels, but Summer had helped them escape. On their third leg, Summer had used the invisible zip lines to meet the twins in Paris to share a few different botanical topics. Then, just a few days ago, while studying earth science, Blaine and Tracey had zipped to Alaska again. Instead of visiting the lab, they had a blast joining the "Paintball Jamboree" with Summer and some of her friends.

However, the twins' last meeting with Summer Beach had been heartbreaking. Yesterday, right here in Uncle Cecil's neighborhood, Blaine and Tracey had victoriously returned after successfully completing the subject of earth science. To their surprise, they had seen Summer walking down the sidewalk. When they approached her, they saw she was not at all herself. The female scientist's expression was joyless and blank. She couldn't remember anything, including her own name.

After seeing his old classmate in that state, Cecil had quickly concluded that Summer Beach's memory had been wiped clean. Luckily, Cecil and Summer had previously worked together on an experimental project where they had transferred the contents of their brains into metal canisters in hopes that they could literally share their thoughts with others. Cecil had been fairly certain that the canister with the contents of Summer's memories was somewhere in the basement. The only problem was that Cecil Sassafras had one of the most disorganized basement labs in the entire world.

To their immense joy, after hours of painstakingly going through the heaps and piles in the basement, the two Sassafras

children found the sought-after canister. It had been lodged in the far back corner of an old file cabinet—the one that Blaine and Tracey were sitting on at this very moment.

The Sassafras didn't know how or why Summer's memory had been erased. They had their suspicions. The twins strongly suspected it to be the work of the Man With No Eyebrows. He was the tenacious and mysterious villain who had followed Blaine and Tracey all over the world trying to thwart their science learning.

Right now, however, the twins were not thinking about him. Right now, they were nervous and excited, thinking about meeting Summer Beach for the sixth time, but sort of for the first time.

Summer was staying next door with a kind old lady named Mrs. Pascapali. When the twins had found the canister, Cecil had rushed next door to give his old friend her memory back. Blaine and Tracey had waited patiently in the basement at 1104 North Pecan Street, hoping and praying that whatever procedure was happening over at 1106 was going well.

Their uncle had called and told them in excitement that the transfer of her memory from the canister had been a complete success. However, the memories the canister contained did not include anything that had happened this summer. So, in effect, it was like Summer Beach had never met Blaine and Tracey.

Blaine nervously wrung his hands. Tracey tapped her toes at a fast pace. How was this introduction going to go? Would Summer still be sort of flat and blank? Or would she be like her old self?

The twins perked up. They could now hear footsteps on the other side of the basement door. All at once, the door swung open, and a woman with frizzy blonde hair and white lab coat burst through the frame. It was Summer, and she was squealing. The scientist ran down the stairs with outstretched arms, hit the ground, did a cartwheel, and then giddily sprang toward the twelve-year-olds.

“Blaine and Tracey Sassafra!” she happily bubbled through a wide smile. “It is so nice to finally meet you two! Your uncle has told me so much about you little cuties!”

Summer wrapped her arms around both twins, pulled them from their seats on the file cabinet, and swept them up into a laughing happy jumping dancing hug from which neither of the children could have escaped, even if they had wanted to, which they didn’t.

“Oh, hooray, hooray, hooray,” the scientist giggled. “There is so much for us to talk about, learn, and catch up on! I know you’ve met me, but I’ve never met you, and I am so looking forward to getting to know you pumpkins all over again!”

The Sassafra twins both smiled. Summer Beach was definitely herself again.

More footsteps could be heard at the basement door. The twins looked just in time to see their crazy Uncle Cecil come tumbling down the staircase. They weren’t sure if his downward movement was intentional or accidental, but regardless, the redheaded scientist landed firmly on his feet. Just like Summer, he bounded over toward the twins with outstretched arms, but Cecil stopped just short of joining the dance hug.

“Train! Blaisey! We did it! We got Summer her memory back! Isn’t it just fabulerrific?? She’s totally herself again! Now you three can get reacquainted and everything can keep moving forward! Or, to be more precise: quickly backwards then back forward and beyond! Isn’t that terrifitabulous news?”

It is terrific, Blaine thought.

Yes, it is fabulous, Tracey silently agreed.

The twins were both happy and relieved that their favorite local expert was okay. They were both brimming over with excitement about starting the adventures of a new science subject.

Summer eventually let the twins out of the hug, but she

didn't completely let go of them. She held one of each of their hands and looked at them like she had known them forever, which she kind of had and kind of hadn't.

"So, tell me how it works," she said with sparkling eyes. "Tell me how you use invisible zip lines to study science!"

"You mean you don't know how the zip lines work?" Tracey asked in disbelief.

"Nope, I sure don't," Summer smiled. "My current memory bank ends right at the point where your studly . . . oh my, I mean . . . uh, studious . . . yes, studious, uncle told me about the idea. But I don't know all the ins and outs of how it works."

The twins looked at Uncle Cecil. His face showed that he had no idea Summer had a little crush on him. He nodded his head and made a gesture imploring them to proceed with the explanation of how the zip lines worked.

Being the older sibling by five minutes and fourteen seconds, Blaine jumped in first. "All you need to travel on the invisible zip lines is a harness and a specially designed three-ringed carabiner. The first ring on the carabiner is for longitude coordinates, the second ring is for latitude coordinates, and the third locks the carabiner securely to the lines."

"Along with the carabiners, we both have smart phones," Tracey continued. "We also have an app on our phones called the LINLOC app, which is short for 'Line Locations.' It gives us the longitude and latitude coordinates for each location, along with the topics that we are supposed to study."

"Plus, it gives us the name of a local expert who will help us study those topics," Blaine chimed in.

Tracey nodded and smiled. "You have been our local expert four times," she said to Summer.

The female scientist put her hand over her mouth in amazement. "I have? Am I good at it?"

“We think you are the best,” the twins said in unison.

“Oh, my, how kind of you two.” Summer giggled.

Tracey laughed, also, and then continued explaining. “We also have another very important app on our phones called the SCIDAT app, which stands for ‘Scientific Data.’ We use this application to text in everything we have learned about each topic. After we are finished, we push send and all that data arrives electronically at Uncle Cecil’s data screen, which is right over there.”

Tracey pointed to the other side of the basement where a screen was fixed to the wall, just above a cluttered computer desk. “That way, Uncle Cecil can keep track of everything we are learning.”

“We have to send pictures, too,” Blaine added. “So, our smartphones have high resolution cameras, as well as a couple more apps that can help us with the needed images. One is the archive app, which has a huge library of scientific pictures that we can flip through and choose one to send. The second is the microscope app, which you uploaded for us in your lab in Alaska. It can magnify an image up to a million times.”

Summer again put her hand over her mouth and giggled. Instead of being weirded out by the fact that she had interactions with the twins she didn’t remember, she seemed to think it was fun to learn about the invisible zip lines all over again.

“The zip lines are designed to land us as close to our local experts as possible without being detected,” Tracey shared. “We are supposed to keep their existence a secret. The only people that know about them are you, a few of your friends in Alaska, Uncle Cecil, President Lincoln, us, and quite possibly the entire Swiss Secret Service.”

“And the Man With No Eyebrows,” Blaine blurted out.

“The Man With No Eyebrows?” Summer asked.

Blaine nodded. “Yep, he is this man that doesn’t have any eyebrows. He is always showing up at our locations around the

world.”

“How does he do that?” the female scientist asked, somewhat alarmed. “Does he travel on the zip lines too?”

“We think so.” Tracey nodded gravely. “We think he has his own specially designed three-ringed carabiner, and that somehow he is able to see all our LINLOC coordinates. He just keeps appearing at different locations trying to stop us from learning about science.”

Suddenly, Tracey stopped. Her face looked like a light bulb had just been turned on in her brain. “Hey, that reminds me about—”

“What? The Taser app?” Blaine exclaimed.

Tracey shook her head “no,” but before she could respond Summer asked, “The Taser app?”

“Oh, yes, the Taser app!” Blaine smiled. “Uncle Cecil and President Lincoln added this app to our phones so we can protect ourselves against the Man With No Eyebrows if he shows up and threatens us.”

Tracey made a mental note to tell Uncle Cecil about the thing she had almost said before she was interrupted by her brother.

Blaine paused to throw up one eyebrow and nod his head slightly in a borderline cocky way. “But so far he hasn’t been able to stop us. We have now made it successfully through four subjects: zoology, anatomy, botany, and earth science.”

On to Geology

“Every time we are finished, we zip back here to Uncle Cecil’s basement at 1104 North Pecan Street, where we get a customized review from Linc Dawg Productions about what we have already learned. Then, we get filled in on what’s next.”

Almost on cue, the furry light brown animal popped out of a hole in the wall.

“President Lincoln!” the female scientist shouted and then ran over to the prairie dog. She wrapped Cecil’s lab assistant in a big hug and then started dancing with him. Evidently laughing jumping dance hugs were not designated solely for human beings.



“My! Oh, my! It’s Cecil’s resident lab assistant and inventor extraordinaire! So good to see you again, Linc Dawg, or should I say Prez? Oh, man, I wish Ulysses was here, so the two of you could catch up.”

The twins knew that the ‘Ulysses’ Summer was referring to was her lab assistant in Alaska, Ulysses S. Grant, the arctic ground squirrel. President Lincoln eventually slid out of the hug and scurried over toward the cluttered computer desk. The small mammal tapped on the keyboard for a second or two, which in turn illuminated the data screen on the wall behind the desk with a bright and happy picture of himself. The text over the picture said, ‘President Lincoln’s Ever So Brief Presentation on Earth Science.’

“Oh, yay!” Summer exclaimed. “Is this the kind of review you were talking about?”

The twins nodded, as Cecil stepped over to serve as the orator for the presentation. The twins' uncle read the title page in a charismatic voice, and then President Lincoln hit the keyboard again, causing the next page of the slideshow to pop up.

"Weather!" the redhead exclaimed. "Weather refers to daily conditions such as windy, rainy, snowy, or sunny! Wind is movement of air caused by the uneven heating of the earth's surface. Rain forms when warm moist air rises and condenses to form a cloud of water vapor. The micro-droplets collect together to form bigger droplets, which fall to the ground because of gravity. Snow occurs in much the same way as rain, except the water vapor freezes as it forms and falls to the ground as snowflakes. Sunny weather comes when there are no clouds in the sky."

The picture showing on the screen behind the text Uncle Cecil was reading was a picture the twins had taken when they got stuck in a snowstorm in Patagonia.

Summer, whose brain was now firing on all cylinders, noticed that fact. "Oh, is this one of the SCIDAT pictures you sent to Cecil?"

Both twelve-year-olds nodded.

Summer smiled, clapped her hands, and jumped in place. "You two little Cutie-frasses are so good at this!"

President Lincoln pressed a button on the keyboard.

"Clouds." Cecil read the word at the top of the new page. "Clouds appear in the atmosphere as a layer of gas that blankets the earth. They are made of tiny drops of water, ice, or dust. They form when warm air holding water vapor cools down. There are four main types of clouds—cirrus, stratus, alto, and cumulus. Cirrus clouds are high, thin, and wispy. Stratus clouds are low and flat. Alto clouds are in the middle and can be flat or puffy. Cumulus clouds are large, tall, and puffy."

The picture on the screen was now one the Sassafrases had

taken on a high mountain peak in Pakistan while searching for a lost sheep.

“Next, we have extreme weather,” Cecil read, saying the word ‘extreme’ in an extreme voice, as President Lincoln brought up the next page. This page had a picture of a ferocious tornado on it. Blaine and Tracey shuddered as they remembered how scary it had been to be storm chasers while in Oklahoma City.

“Tornadoes are rapidly spinning funnels of air that touch the ground and are connected to the clouds above,” Cecil read. “Hurricanes are huge storms with lots of rain and damaging winds. In some parts of the world, hurricanes are known as typhoons. Floods are the last kind of extreme weather listed here. Floods are high levels of water caused by periods of heavy rain.”

The prairie dog brought up a picture that was obviously pulled from the archive app, as it was an encyclopedia style picture of the Water Cycle.

Uncle Cecil continued orating. “The water cycle shows how water changes form on the earth. This process includes evaporation, condensation, precipitation, and collection.”

Cecil paused as his lab assistant changed the screen and then continued. “Water!” he exclaimed. “Oceans cover nearly two-thirds of the earth’s surface. The currents in the oceans keep them consistently moving. A river is a moving body of water that carries the water from its source (or beginning) toward a larger body of water, such as a lake or ocean. A lake is a barely moving body of water that is not connected to the ocean. In other words, it is landlocked.”

The picture being displayed was that of a beautiful river that flowed just outside the city of Bern, Switzerland. The twins had snapped this photo when they were serving as consultants for Triple S, a.k.a. the Swiss Secret Service. This image, along with the information about water, concluded President Lincoln’s ever so brief presentation. Summer jumped and clapped. Cecil wiggled his

arms and fingers, imitating fireworks. President Lincoln did some form of an animal boogie. Blaine and Tracey watched everyone else, wondering how they had gotten intertwined with such a strange crowd.

When Uncle Cecil finished his fireworks display, he jumped up onto the computer desk with President Lincoln. "Linc-Dawg!" he shouted. "I almost forgot!"

"Forgot what, Uncle Cecil?" Blaine asked.

"About rock," the frantic scientist responded.

"About rock?" Blaine repeated in question form.

Cecil nodded in confirmation.

"About rock? Isn't that one of the things we are studying next?" Tracey asked.

"Yes, Blaisey, yes, it is. And that is partly what I am talking about but not fully. What I am fully not partly talking about is Floating Tomatoes."

Both twins paused with their mouths open and confused looks on their faces. They looked at each other with raised eyebrows. They had to ask, "Floating Tomatoes?"

"Why, the rock n' roll band President Lincoln and I are in, of course," Cecil responded with a big smile, as he attempted to strike a cool rock star pose. "We are the Floating Tomatoes, and we have a gig down at the Right-Handed Pelican tonight!"

The Sassafras twins were more amused than impressed, but such was not the case with Summer. She was looking at Cecil Sassafras standing on the computer desk as if he was the most glamorous rock star in the world.

"Can I come?" She eeked out with twinkling eyes.

"Of course you can," Cecil said happily, as he jumped back down to the floor. "But we've got to giddy up and go right now, because our gig starts in seventeen minutes!"

In what seemed like seventeen seconds, Blaine and Tracey found themselves inside a moving recycling bin with Summer Beach, President Lincoln, and their uncle. They were driving down the neighborhood sidewalk toward the Right-Handed Pelican. Uncle Cecil and President Lincoln had converted the bin into an “anti-dog tank.” It had wheels, steering capabilities, and a motor that ran on used French fry oil and Brussels sprouts. Uncle Cecil deemed this over-the-top vehicle necessary for any travel in the neighborhood because of a dog that sometimes wandered the streets—the “Guardian Beast” as Uncle Cecil referred to it. Thanks to its nickname, one would assume it was a huge, mean, nasty creature, but in reality, the dog was a black miniature poodle. It was usually lazily lounging somewhere inside the house of its owner, Old Man Grusher, at 1107 North Pecan Street. But for some strange reason, their uncle was scared to smithereens of this little dog. So, now here they were, rolling along in this one-of-a-kind green tank.

Luckily, the Right-Handed Pelican wasn't very far away. Cecil parked the tank in the back alley, flung open the lid, hopped out, and ran into an open back door. He was followed closely by the other passengers.

Blaine and Tracey had never been to the Right-Handed Pelican, so they didn't know what kind of establishment it was, but they soon found out. They rushed through the kitchen and out into the crowded dining area of a pizza parlor. They were a bit confused, until they spotted a small stage set up off in a far corner.

Both the male scientist and the prairie dog made a beeline toward the stage. President Lincoln bounded up onto a stool and got situated behind the drum set. Cecil grabbed an electric guitar off a stand and took his place behind a lone microphone in the center of the stage.

“Checkity, checkity, check one two,” Cecil said into the microphone to make sure it was on. It was.

“It is our honor to be here today at the Right-Handed

Pelican to put on a birthday concert for a very good friend of ours!” Cecil pointed to a scrawny teenager sitting at the table closest to the stage.

“Hey, look, Trace.” Blaine bumped his sister with his elbow. “It’s Preston, that guy that works at the Left-Handed Turtle Supermarket.”

Tracey nodded in agreement.

“Everybody here at the Right-Handed Pelican Pizza Parlor, wish Preston a Happy Birthday!” Cecil boomed into the microphone.

Everyone shouted out joyful birthday salutations to the grocery store clerk, as Cecil began strumming the electric guitar at a blistering pace. President Lincoln began beating the drums with lightning fast chops, and the Floating Tomatoes birthday rock n’ roll show ensued.

Jovial party-goers danced, jived, and sang along with The Floating Tomatoes’ energetic song choices. Preston smiled in a way that showed he was overjoyed to be celebrating his birthday this way.

After a couple of hours of rock n’ roll, Cecil looked right at Blaine and Tracey from his spot on the stage. “Here’s a shout out to my niece and nephew,” he said. “You guys have been rocking the science learning! And now it’s time to rock on! Next up: geology! You guys will be studying rocks, geography, islands, mountains, glaciers, volcanoes, earthquakes, and more! So, all that to say that this next song goes out to you two. It’s a little song Prez and I like to call ‘Never Eat Slimy Worms!’”

Blaine and Tracey had been smiling up to the point where their uncle mentioned the song title. “Never Eat Slimy Worms,” they thought. “What does that have to do with Geology?”

Everyone else at the pizza joint smiled and laughed and bopped up and down, as the Floating Tomatoes jammed out the funky new cool song. They all joined in on the final chorus, singing:

*La, la, low! La, la, low!
Never eat – No, no, no!*

*Through the dirt,
So grimy,
If you find ‘em, just throw.*

*You know why?
They’re slimy!
North, south, east, west, worms go.*

The song finished and twins were pumped up with excitement for their next leg. They were looking forward to beginning their study of geology, but in the meantime, they were excited to stay for the rest of the concert. They didn’t want to miss a minute of the Floating Tomatoes!

The rock n’ roll gig ended up lasting long into the night. The three Sassafras got home so late they decided to go to bed and wait until morning to zip out.

Early the next day, down in the basement, there was not a sleepy eye in the room. The twins stood excited and ready with their helmets on. Their harnesses were cinched up. Their smartphones were out, ready to open the LINLOC app. Summer, who was staying next door at Mrs. Pascapali’s, had come back over and was jumping in place and clapping. President Lincoln, who presumably slept somewhere in the walls of the house, was present, and Uncle Cecil stood in his white lab coat and bunny house slippers, ready to send his niece and nephew off into the world again to learn science.

Oh, geeze little weeze,” he suddenly blurted. “I almost forgot to tell you about the Slimy Worms song!”

“Oh, yeah, the Slimy Worms song,” Blaine said. “What in the world is that all about?”

“It’s a mnemonic that helps us remember north, east, south, and west,” Summer chimed in.

The twins had blank looks on their faces. “North, East, South, and West?” Tracey asked. “Why do we need to remember that?”

“Compass!” Uncle Cecil blurted again.

“Compass...Never eat slimy worms...” Blaine mumbled. “Wait! Are you saying—”

“Yes! Yes, I am!” Cecil interrupted. “We are going to add a new compass application to your phones!”

Blaine and Tracey nodded happily, as President Lincoln scurried over to the computer desk and proceeded to tap some keys that immediately began uploading the aforementioned app to each of their phones.

“While studying geology, this slimy worms compass app will hopefully prove to be extermeriffically useful.” Cecil beamed. “It can lead you, guide you, direct you, and keep you from getting lost. It was designed by Linc Dawg himself, and it has a needle that looks like a slimy worm to point to the north, east, south, and west degree points situated around the circular shape of an open mouth!”



“Cool and pretty gross,” the twins thought.

The new app finished uploading with the sound of a ding. The twelve-year-olds opened it up and looked it over for a few minutes with oohs and aahs, and then they swiped over to LINLOC.

“What does it say? What does LINLOC say?” Summer asked, looking like she could hardly contain herself.

“Latacunga, Ecuador,” Tracey read with a smile. “Our newest local expert’s name is Jase Judson, and we will be studying the topics of continents, layers of the earth, volcanoes, and geothermal features.”

“Longitude 78° 36’ 21.2” W, latitude 0° 55’ 53.1”S,” Blaine added, reading the coordinate numbers.

“Oh! This is just so exhilarating!” Summer exclaimed with outstretched arms and a twirl.

The Sassafras twins excitedly turned the rings on their carabiners to the correct longitude and latitude coordinates and then let them securely snap shut. As they were designed to do, the carabiners automatically connected to the correct invisible zip-lines. Upon connection, Blaine and Tracey were pulled into the air. They would dangle like this for approximately seven seconds, and then they would disappear from this spot and be whisked away at the speed of light.

“Oh! Uncle Cecil! Wait! Wait!” Tracey suddenly said, almost like she was panicked. “I almost forgot to tell you something!”

“What, Blaisey, what?” the redheaded scientist asked.

“When we were cleaning up the basement looking for that canister with Summer’s memories in it,” Tracey said, trying to talk fast enough to get out what she needed to say in the few seconds before she and Blaine zipped away, “I found something! I found a whole lot of somethings! They were hidden all around your basement.”

“What did you find, Blaisey?”

“I found a whole bunch of hidden cam—”

Whoosh! The twins zipped away and were gone.

CHAPTER 2: A SUPER SCIENTIFIC START

Crushing Continents

A thief, a bully, a henchman, a pirate, a kidnapper, a scoundrel, and a mad scientist—this was his list of the individuals he needed. He stood up from his desk and looked at the blank monitors in front of him.

He was partly encouraged and partly discouraged. He was encouraged because he was finally going to have a team. He would no longer be a lone wolf. But he was discouraged because that girl had found his hidden cameras.

In a moment of non-strategic weakness, he had let Summer Beach leave the confines of his basement here at 1108 North Pecan Street, after he had successfully wiped away all her memories using the Forget-O-Nator. Summer had mindlessly wandered the streets of the neighborhood where, much to his dismay, she had run into that silly Cecil Sassafra and his niece and nephew. Cecil had remembered he had a canister with the contents of Summer's memories. The twins had diligently searched over, around, and through all the piles in his unorganized basement lab and had eventually found the lost canister in the back of an old file cabinet. Even worse than finding the canister, the girl twin had found all his hidden cameras, but at least she had only found the ones in the basement. He had watched her pile them up and put them in the file cabinet. When she had, the images on the monitors in his basement had gone black.

Now, he no longer had eyes in the command center of his archenemy. He was sure he could still access the other cameras he had hidden around Cecil's house, but those weren't nearly as important. What he needed to be able to see was that data screen and the LINLOC coordinates. Without cameras in Cecil's basement, he would have no idea what those twins were learning or where in the

world they were going. And to make matters worse, he was still in the dark as to whether or not Cecil was able to successfully recover Summer's memories.

He slammed his fists down on his computer desk and growled at the blank monitors. He stood with clenched teeth and let the desire for revenge boil up in his heart again. He reached up and touched the place on his forehead where his eyebrows used to be.

"I will pay you back for what you have done to me!" he shouted. "Vengeance will be mine, Cecil Sassafra!"



He sat down and snatched up the list he had just written. "A thief, a bully, a henchman, a pirate, a kidnapper, a scoundrel, and a mad scientist," he read.

Cecil had President Lincoln. Summer had Ulysses S. Grant. Blaine and Tracey had each other. By contrast, here he was: all alone, trying to pull off the greatest act of revenge all by himself. He needed companions too. He needed a team of sidekicks. He

needed sidekicks with dark hearts like his.

His plan was to don the Dark Cape suit again, travel the invisible zip lines, abduct some of the villains from previous weeks of the summer, and bring them back to 1108. Then he would wipe their memories using the Forget-O-Nator, and in their brainless state they would become his own personal villainous army. They would obey his every command, and together they would finally bring a stop to the science learning of those twins.

And when the learning was over, so would be the dream of his enemy. Cecil Sassafras's most precious dream was for his niece and nephew to love and learn science. That very dream was about to be smashed to pieces!



Their bodies flew through places and spaces encircled by beautiful swirls of light. Blaine and Tracey Sassafras were just as amazed and enthralled now with this kind of ultra-exhilarating travel as they had been at the beginning. It never seemed to lose its luster.

Eventually, they came to a jerking stop. The three-ringed carabiners automatically unclipped from the invisible lines. The twins fell down in the new landing spot with tingling bodies that were devoid of strength and sight. This was all normal and customary, so there was no panic in the two Sassafrases' faces because they knew what would come next. All the blinding white light would fade into color, and they would be in the closest location as possible to their new local expert without their landing having been detected.

The white light did indeed fade. Strength and sight both fully returned, and Blaine and Tracey saw that they had landed in an alley. Initially, they thought they were alone, but before either twin

could make a move or say anything, they both heard angry shouting echoing up the alley from the other end.

Blaine and Tracey looked at each other with tinges of concern. Then, they turned and looked up the alley in the direction of the shouts. There were a dozen or so trash cans and a few piles of items waiting for recycling, but overall the alley was not crowded, allowing the twins to immediately see the one who was shouting. It was a fairly big dark-complexioned boy.

“I said give me your bike, Alicia!” he yelled.

“No! No way, José!” The Sassafras heard a small girl’s voice answer from a spot they couldn’t see.

“Give me your bike! I want that bike! If you don’t give it to me, I’m going to go get my two cousins. Andrés and Leoncio will make you give it to me!”

“I said no way, José!” The girl defiantly resisted.

The boy bent over and picked up a rock. “Give me your bike, or I’m going to throw this rock at you.”

Blaine looked at his sister again. “I think we can take him,” he whispered. He knew they needed to help the hidden girl.

Tracey didn’t think there was any chance they could actually take this boy. He looked nasty and mean and at least a foot taller than she and Blaine were. But she, like her brother, knew they needed to help the girl. They had to at least try.

Tracey followed Blaine’s lead as he stood up and began making his way quickly, but quietly, down the alley toward the rock-wielding bully.

“Alicia, I can take whatever I want from you! And there is nothing you can do to stop me! Give me your bike! I will throw this rock at you!”

The boy was now yelling even louder than before, and he was holding the rock back behind his head like he really was going

to throw it. Blaine was now only a few feet away, and he was about to pounce, when all of a sudden, two figures jumped down off the roof of one of the buildings, landing right on top of the bully, taking him to the ground in the place where he stood. The rock tumbled harmlessly out of his hand, as he stared up with terrified eyes at the two that had just pancaked him.

Blaine and Tracey stared, too, in disbelief at the two individuals. They were real . . . live . . . superheroes. Or at least they were dressed like it. The taller one, who was dressed in a two-toned copper-colored suit, leaned over and picked up the bully by the collar of his shirt, causing the boy's feet to dangle up off the ground. He held the bully's face only inches from his own and then said in a deep and scratchy, but cool, Australian-accented voice, "You are going to leave this girl alone. And you are never going to bother her again. Is that understood?"

The bully vigorously nodded his head.

"Not only are you not going to bother her anymore," the superhero continued, "You're not going to bother anyone else either. Is that also understood?"

The bully nodded his head again and then asked in a scared and high-pitched voice. "Who are you?"

The superhero clenched the collar of the boy's shirt a little tighter, looked straight into his trembling eyes, and said, "I'm Wombatman. And that over there is my friend, Brick Kid. We will be watching you."

Wombatman set the bully back down onto the surface of the alley. "Get out of here," he commanded. "And go tell all of your little amigos about us."

The sniveling boy turned and ran out of the alley without looking back. It appeared he had heard Wombatman's message loud and clear. Wombatman's sidekick, evidently named Brick Kid, leaned over and gently helped the girl, who had been hiding behind

a small stack of plastic crates. She was clutching a pink bicycle and currently looked half relieved and half scared.

“It’s okay,” Brick Kid reassured her. He was wearing a mask and a chest plate that looked to be made of actual brick. “He’s gone now, and I don’t think he’s coming back. You’re safe.”

The girl, whom the bully had called Alicia, took a few more long seconds to look at the superheroes with her big brown eyes. Then, a thankful smile spread across her face. She gave each of them a big hug.

“Gracias, Wombatman and Brick Kid,” she exclaimed. “Thank you for rescuing me from José!”

The two superheroes nodded as if what they had just done was simply their duty. Then, they turned and looked at the Sassafras twins, who were standing there dumbstruck.

“Are these kids bullies as well?” Wombatman asked the girl in his cool scratchy voice. “Do we need to teach them a lesson too?”

Alicia smiled and shook her head. “No, I do not know them. I think they were trying to help me, just like you guys were.”

Wombatman and Brick Kid both took a step closer to the Sassafrases and looked down at them with intense eyes that were staring from behind their masks. Tracey gulped. Blaine’s mouth dropped open. Were they about to get pancaked like José?

“Well, alrighty then,” Wombatman finally said in a little higher friendlier voice.

Brick Kid reached up and began taking off his mask. “Let us introduce who we really are,” he said, as his mask came off. This revealed a strong handsome teenage face topped with sweaty auburn hair. “I am Jase Judson, and that is my older brother, Andy,” he said, pointing to Wombatman.

“I am Blaine, Blaine Sassafras, and this is my sister, Tracey.”

Blaine returned the greeting.

“Jase...I mean Brick Kid! What are you doing?” Andy/Wombatman whisper-shouted. “We can’t reveal our identities! That’s against superhero protocol!”

“Oh, c’mon, Andy,” Jase complained. “I’m getting tired of wearing this mask. You made it too heavy, mate. Why did you have to use real bricks?”

“Because your name is Brick Kid,” Andy retorted. “What did you want me to use, Styrofoam? Oh yeah, that would really strike fear into the hearts of all the universe’s villains. Look out everybody! Here comes Styrofoam Kid.”

Not listening to his older brother, Jase also detached his brick chest plate. Once it was off, the twins’ new local expert reached out and shook their hands.

“Andy and I are from Australia, which is a country and also a whole continent,” Jase started. “It’s the land mass continent. But since there are so many islands in the region surrounding the land mass, it is also sometimes referred to as ‘Oceania,’ which includes the land mass of Australia as well as all the surrounding islands.”

“Stop, Jase,” Andy interjected. “These kids don’t want to hear all that science-y stuff.”

“Well, it’s better than all your science fiction,” Jase responded with a chuckle.

Wombatman’s shoulders slumped a little as he gave in and reached up and took off his mask. He looked a little like his younger brother except that he had blond hair. Andy looked at all of them with a squinting face. “Would you all rather hear about science or science fiction?” he asked.

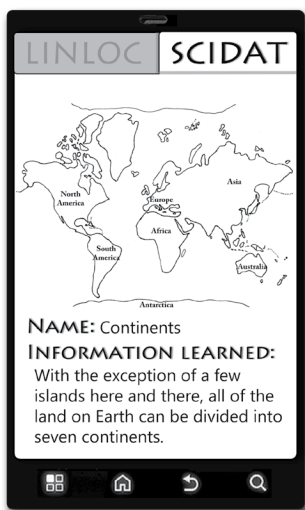
Tracey remained silent. She didn’t really want to choose a side. Alicia looked like she felt the same way as Tracey. Both girls instinctively looked at Blaine. The Sassafras boy nervously smiled and then stumbled through a response on behalf of all three of them.

“We would rather . . . uh . . . well, maybe . . . I think we could . . . How about if . . . Can we hear about both?”

“Of course you can!” Jase smiled. “And I will start.”

At that, Andy made a real loud sigh, walked up the alley a bit, and took a seat by himself.

“Like I said, we are from Australia, the land mass continent,” Jase started. “With the exception of a few islands here and there, all the land on earth can be divided into seven continents—North America, South America, Europe, Asia, Africa, Australia, and Antarctica. The shape of these continents can easily be seen from space. Some are surrounded completely by water, like Australia, but others touch each other, like Europe and Asia. Then, each continent is divided into smaller regions called countries. Some continents have lots of countries, while others only have a few.”



The twins glanced over at Alicia. She seemed to be enjoying this information as much as they were.

“South America, the continent we are on now, is the fourth largest continent,” Jase continued. “It is in the western hemisphere, and it’s separated from North America by the Isthmus of Panama. It is bordered by the Pacific Ocean on the west, the Atlantic Ocean on the East, the Caribbean Sea to the North, and to the south is the Drake Passage and Antarctica.”

Jase glanced over his shoulder toward his older brother, leaned in a bit, and whispered, “Let me just warn you three. Andy will be longer winded than I am, when he gets a chance to talk. He truly believes that he is an actual superhero. A while back, he

dropped out of college to manage a comic book store, and I think sometimes he gets caught up in the comic book world. He often seems to confuse fantasy and reality. But, listen, he's my older brother and I love him. He really has always been like a hero to me. And sometimes I wonder if maybe he's onto something with all of this superhero stuff."

"That's all I have for now." Jase shrugged, turned back, and shouted in his brother's direction, "Andy, it's time for that science fiction."

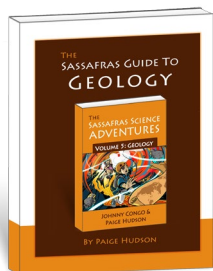


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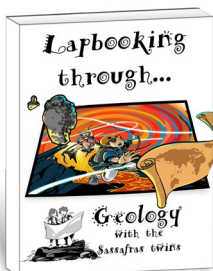
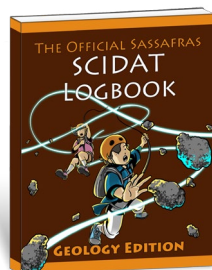
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