

# The Dull Blade

By: Sydney Cousins

“Ok girls, practice is over! Enjoy the rest of your weekend and I’ll see you on Monday.”

“Bye coach Todd,” the girls exclaimed, rushing to get into the changeroom. After practice, Ashley hurried along with everyone else, but she changed extra fast because she needed to ask her coach something.

“Todd, my skates need to be sharpened. Do you know where I can go?” Ashley asked, dragging her bag towards the arena doors.

“Yeah of course! You know the shop Reuse, Recycle, Replay? They have really good service.”

“Thanks. I’ll tell my dad.” Ashley waved good-bye and stepped into the parking lot, searching for her car.

“Hey Ash, the trunk is open,” her dad said, turning on the engine.

“Ok.” Ashley stuffed her equipment in the back and jumped into the front seat.

“How was practice?”

“Good, but my skate is dull. Todd said there’s a place just around the block.”

“Ok perfect, I’ll bring them there tomorrow.”

“Also dad, do you know where skates come from?”

“Well, skate blades are made out of steel and titanium.”

“What are steel and titanium?”

“They are elements on the periodic table and they come from the ground.”

Ashley gave her father a sideways glance. “Huh?”

“Well, titanium is mined all over the world, countries like Australia, Sierra, Norway and even Canada. In Canada, it’s only mined in Quebec and QIT-Fer et Titane Inc is the largest company. They get the mineral out of the ground by digging an enormous hole that you can

descend into. They dig massive amounts of titanium out and process it using the Kroll process.

“Pardon?”

“The Kroll process is a special way of removing unnecessary minerals and turning titanium into a solid form. Afterwards, they ship the mineral to various companies and those companies turn it into everyday items that we use.”

“What about steel?”

“Steel comes from iron, which is located mostly in China, but Canada, the United States and other countries also produce it. Iron is mostly found in Quebec, Nunavut and Newfoundland and Labrador if you’re looking at Canada. It comes out of the ground as iron ore but a lot of other minerals are stuck to it. These get removed so it’s solely iron that’s left. People turn iron into steel by using a blast furnace or electric furnace. Both are eco-friendly and healthy for the environment. And following all that, many companies purchase the steel and use it in their products.”

“That sounds super cool!”

“Here’s a fun fact, steel and titanium are strong, tough and can hold a lot of weight. That’s how they’re able to withstand all the processing and it’s why they’re used in items.”

“I feel like I’ve learned more in these ten minutes than I have in a full day of school!”  
Just as she said this, Ashley and her dad rolled into their driveway. Ashley didn’t wait a second bursting through the front door, spilling her hockey bag on the mat. Kate, her best friend, was already waiting for her in the living room.

“How was practice,” she asked, hugging Ashley.  
Ashley shrugged. “It was fine, but do you know what’s really cool?”

“What.”

“My dad told me what hockey skates are made out of!”

“Cool.”

“Did you know that there’s steel and titanium being mined out of the ground in Canada right now!”

“That’s crazy!”

A few minutes later, Ashley's dad called them. "Girls, lunch is ready," he told them, setting their grilled cheese sandwiches on plates.

"Coming," they answered in unison, quickly washing their hands. Once Kate and Ashley were seated and munching on their sandwiches, Ashley's dad told them something.

"Did you know that the pan I'm holding is made out of iron? And the lipstick your mother uses has titanium in it?"

Ashley and Kate gawked at Ashley's dad. "Really! That's so cool!"

"Without these minerals, we wouldn't have a lot of items. You should be very grateful for all those people who mine these important things."

"I am grateful," Ashley declared.

"Yeah, just think of those people whose job it is to get minerals," Kate piped in. "They're so important."

"Maybe you can be one of those people when you're older," Ashley's dad told them, collecting their finished lunches.

"That'd be cool," they exclaimed, imagining themselves with hard hats and pick axes, fiercely chipping at rocks and minerals.

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