

I Design Roller Coasters

Anya Tyler helps create some of the world's most thrilling rides.

You climb into the seat of a roller coaster. Your palms sweat as the train inches up a steep hill. Finally, it reaches the top. Then—*whoosh!* The train rockets down the track.

Do you love roller coasters? If so, you can thank **engineers** like Anya Tyler. She designs roller coasters for a company called Peak Thrills Engineering. Tyler recently spoke with *Scholastic News* about her exciting job.

Scholastic News: When did your love of roller coasters begin?

Anya Tyler: When I was in

middle school, I was tall enough and brave enough to get on roller coasters. I thought it was really fun. It's something scary, but it's also very safe.

SN: You've designed many wooden roller coasters. What's the process like?

AT: From start to finish, it usually takes a year-and-a-half to two years. We start by scribbling what the ride looks like from above. Then we turn our drawing into a 3-D model. We create a video that shows the ride in action. Next, we design the structure and all the parts. The structure is what holds up the tracks. My role is to make sure it's strong enough to handle the train. Once the roller coaster is built, we test it.

SN: What challenges do you face?

AT: We don't have **infinite** resources, like money or time. Most parks have a limited amount of space too. And you have to design for all kinds of riders. Some like when you float out of your seat. Others think a tall hill is the best. And some want to flip upside down.

SN: What do you love most about your job?

AT: Seeing the final product. It's really cool when I see guests having fun.

—by Alicia Green

Words to Know

engineers *noun.* people who design and build machines, products, or structures

infinite *adjective.* never-ending

Note: The interview has been edited and shortened.

Anya Tyler helped design the Texas Stingray roller coaster in San Antonio, Texas.

Made to Thrill

Here's how engineers create roller coasters.

Step 1: Plan It

Engineers spend months designing the coaster. They figure out how tall it will be and where each loop and curve will go.

Step 2: Build It

Next, workers make each part of the coaster, including the trains. They also build the structure and lay the tracks.

Step 3: Test It

Once the coaster is built, engineers make sure everything works properly. Then the team takes the finished coaster for a ride.