



SCIENCE CAREER  
ADVENTURES

**Jayden the Highway Engineer:  
Improving Highways**

# Meet Jayden!

**Hi! I am Jayden, and I am a highway engineer! A highway engineer designs roads, bridges, and tunnels.**



**As a highway engineer, I have to make sure that highways are safe to drive on. I also have to make sure that highways can hold a lot of weight. A semi-trailer truck weighs 80,000 pounds!**

# What I am Working On

Right now, I am working on a problem. Highways are very dark at night! Many highways do not have lights on them. As a highway engineer, it is my job to brainstorm ways to design highways so they are easier to see while driving. One idea I have is to put a special kind of paint on the roads. The paint will glow in the dark at night!



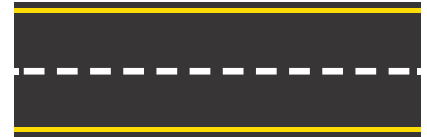
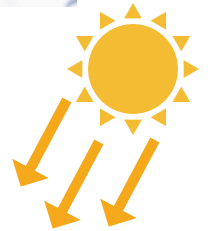
# Glow in the Dark Paint on Roads

## Here is how the paint works:

We add a special particle to normal highway paint that will make it glow in the dark.



During the day, when the sun is out, the particles in the paint absorb the energy from the sun.



At night, the particles use the sun's energy to glow in the dark. This causes the paint lines to glow and light up the road!



**Even though the paint will glow in the dark at night, you won't be able to see each individual particle. That is because the particles are very tiny!**

# Painting and Testing the Road

**The next steps are to paint the road and ask people their opinions about the paint. Here is what we plan to do:**

First, we will paint long stripes along the sides of the road. We chose this spot, so drivers would know where the edge of the road is at night. To paint the stripes, we use a special paint machine. The paint machine releases the paint in a way to make perfect lines.

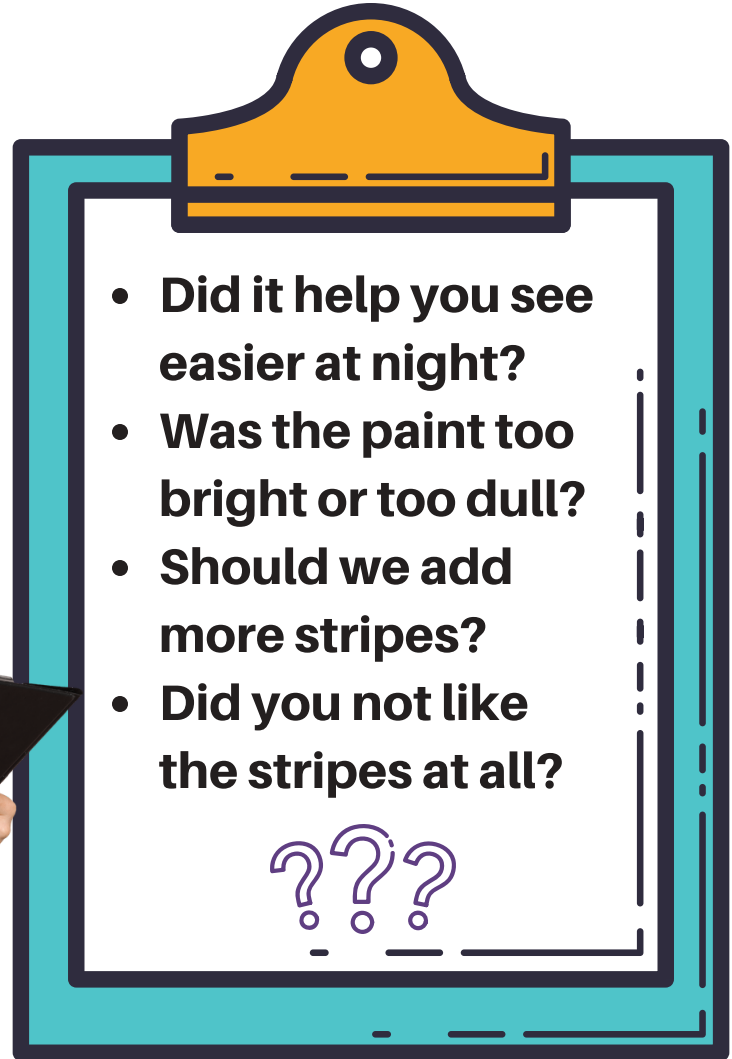
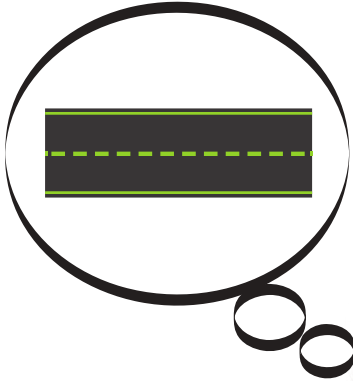


Then, we will ask people what they think about the new paint. To do this, we will create a survey online that people can fill out. A survey is a document that has questions. We will ask people if they can see the road better when they drive at night because of the paint.



# Making Changes

**After we paint the road, we will ask people what they think about the paint!**



**Based on what people tell us, we will make changes to the glow in the dark paint plan! We will keep working on the paint and how to use it in the best way!**