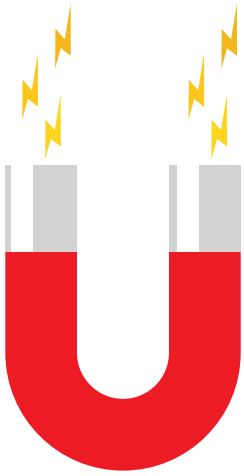
Asher the Research & Development Engineer: Using Magnets

Who is Asher?

Hi, I'm Asher. I work as a research and development engineer at a company that makes magnets. A research and development engineer creates new products or makes existing products better.

I specifically work on creating magnets that farmers use to put inside of cow stomachs! How crazy does that sound?



What I am Working On

I am preparing to attend the Georgia Dairy Conference in Savannah, Georgia. The conference is for dairy farmers to learn about current trends in the dairy industry. I will be speaking to the farmers in a 45-minute presentation about why they should use my cow magnets.

I will also have a booth set up for the farmers to visit so they can see the magnets.

Why Conferences are Important

Conferences are important for me to attend because it helps get the word out about new products that my company makes. It also gives me the opportunity to talk to our customers to see what their needs are. I can hear directly from the dairy farmers to get feedback on our magnets to see what changes I might need to make on my future magnets.

The magnets are working great, Asher!

How are the magnets working?

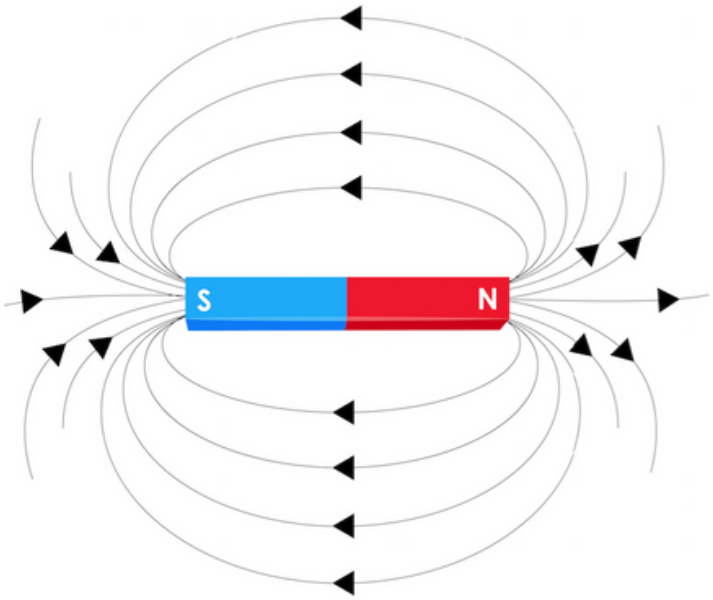
Topic

I will be speaking to the farmers about a new cow magnet I have designed. Sometimes when cows graze on grass in a field, they accidentally swallow pieces of metal trash, like a nail or wire from fencing. This metal can make cows sick or even cause them to die if the metal pokes through their stomach. But, if the cow swallows one of my magnets, the magnet will attract the pieces of metal in the cow's stomach and prevent the metal from poking through its stomach.

Topic

Cows have a lot of little folds and creases in their stomachs where small pieces of metal can be found. Any metal object within the magnet's magnetic field will be attracted to the magnet.

A magnetic field is an area around a magnet where the force of magnetism acts. So, even if the magnet is not touching the metal in the stomach when the cow swallows it, the magnetic field will attract the stray pieces of metal to the magnet.



Getting Ready to Present

I have a week until I present at the conference. I spend my week at work preparing for my presentation. I make a presentation that explains how the magnets will work. I also include information about how the magnets are made of safe and non-toxic materials so that the magnets won't make the cows sick. Finally, I include a couple of pictures to show where the magnet will be when the cow swallows it. When I have my presentation finished, I have another engineer in my office listen to me practice my presentation and give suggestions. I also email my presentation to my friend who is a veterinarian to make sure all of my information on cows is correct.

Did You Know?

Fun Fact #1:

The magnet is small enough that it is easy for the cows to swallow, but too big to go past the stomach, so the magnet stays in the cow's stomach for life!

Fun Fact #2:

A compass can be placed beside the cow's stomach to detect if the cow already has a magnet in its stomach or not. The needle on the compass will point away from the north when it is near a strong magnet.