

# Meet Karl

Karl is a hornbill who looks just like his name sounds. His **bill** looks like a long horn. Karl uses his bill to pick up food. It would be very hard for Karl to eat without it.



Karl the hornbill

Karl uses his  
bill to hold food.





Sadly, the lower part of Karl's bill had worn away! Scientists helped him. They used a **3-D printer**. With it, they made a new part. The part is called a *prosthetic beak*.



Karl's bill has worn away.



A 3-D printer makes Karl's prosthetic beak.

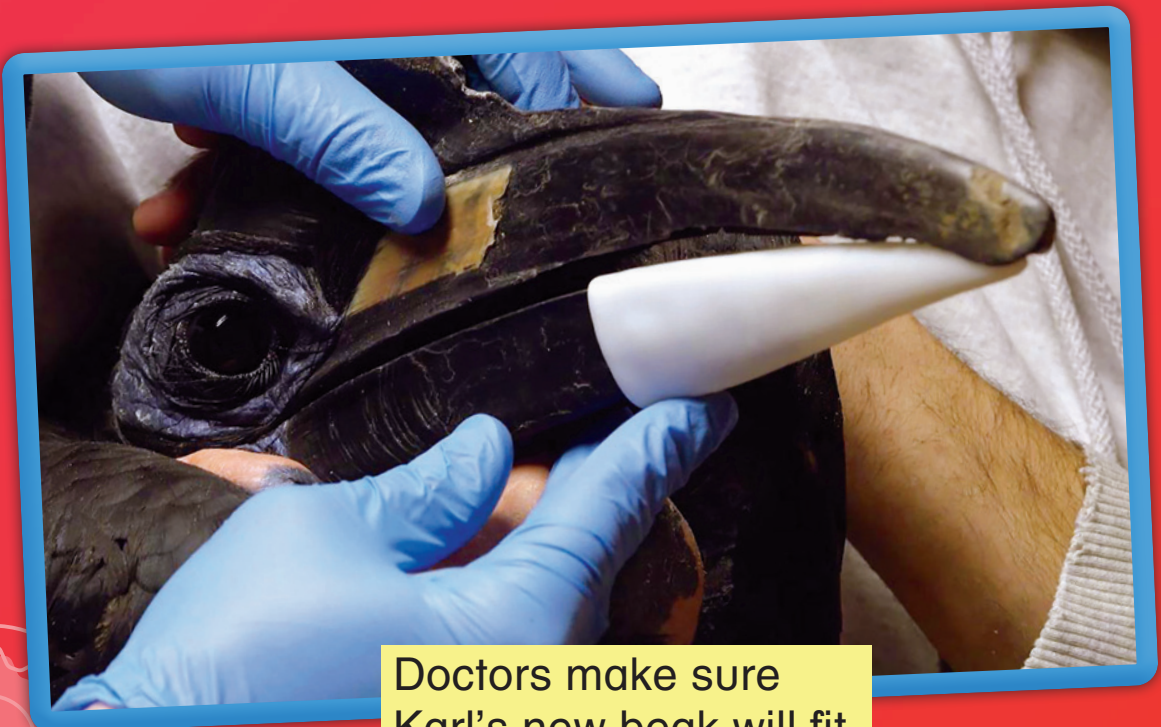
## Technology & Mathematics

### Animal Avengers

This group of people helps animals. They give their time and talents. They raise money as well. They help solve problems and protect animals.

The new part of Karl's bill is just right for him. Now he can use his bill like any other bird.

**Technology** is amazing. So is Karl!



Doctors make sure Karl's new beak will fit.





## Engineering & Arts

### Who Are You?

Some animals use color to help spot friends and foes. Some toucans' beaks are orange. Prosthetic beaks for these birds must be orange as well. If not, the birds will be **rejected!**