

## CRISPR

Researchers have only recently begun to edit human genes. CRISPR technology made it much easier for scientists to do this work.

### SCIENCE

A Spanish biologist was behind the breakthrough CRISPR technology. He discovered the bacteria that defended itself by cutting DNA.



### ENGINEERING

Genetic engineers use what they call "molecular scissors" to remove and replace genes. CRISPR is one such set of engineered enzymes.



DNA

### MATH

Mathematicians found a way to model how to predict the errors that CRISPR might make in cutting DNA. This will help avoid dangerous mistakes.



Cas9

### TECHNOLOGY

A bacteria, not a machine, does the work of gene editing with CRISPR. That's part of what makes the technology so groundbreaking.



RNA