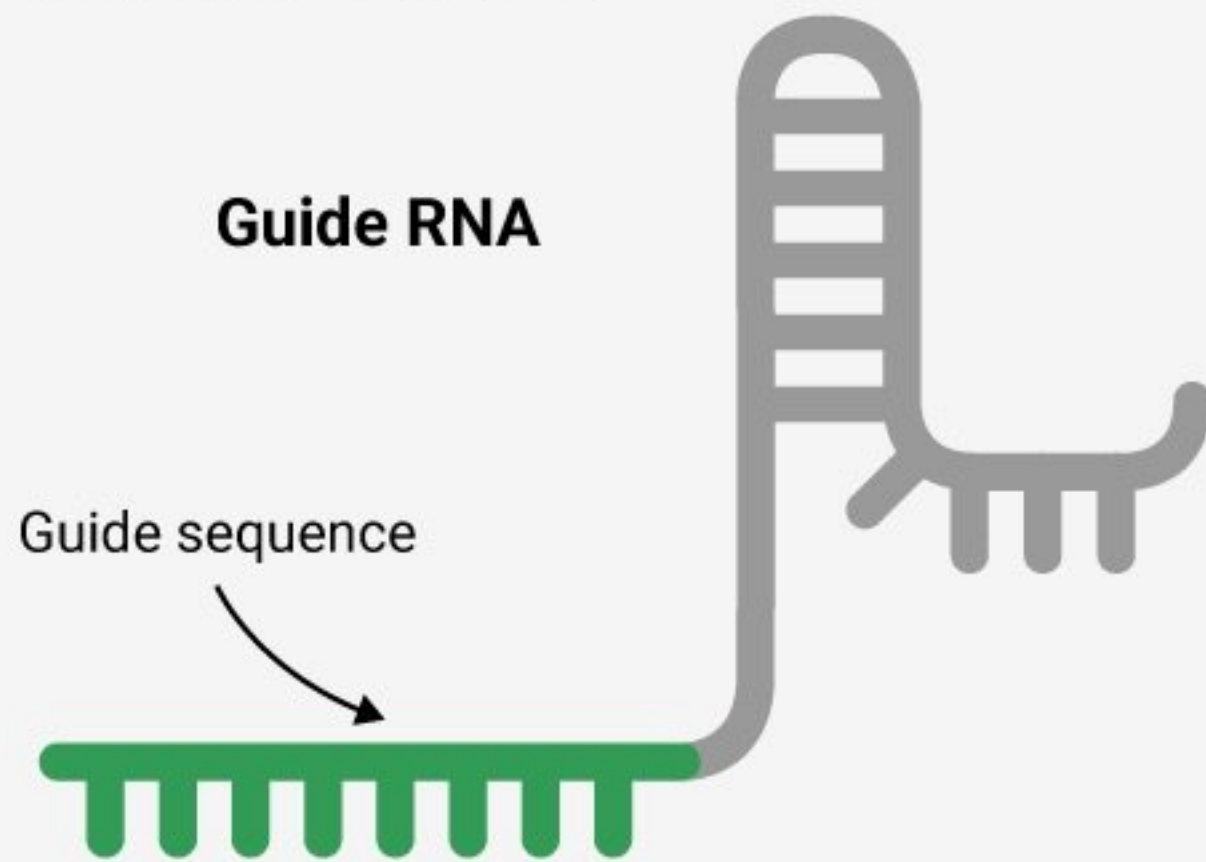
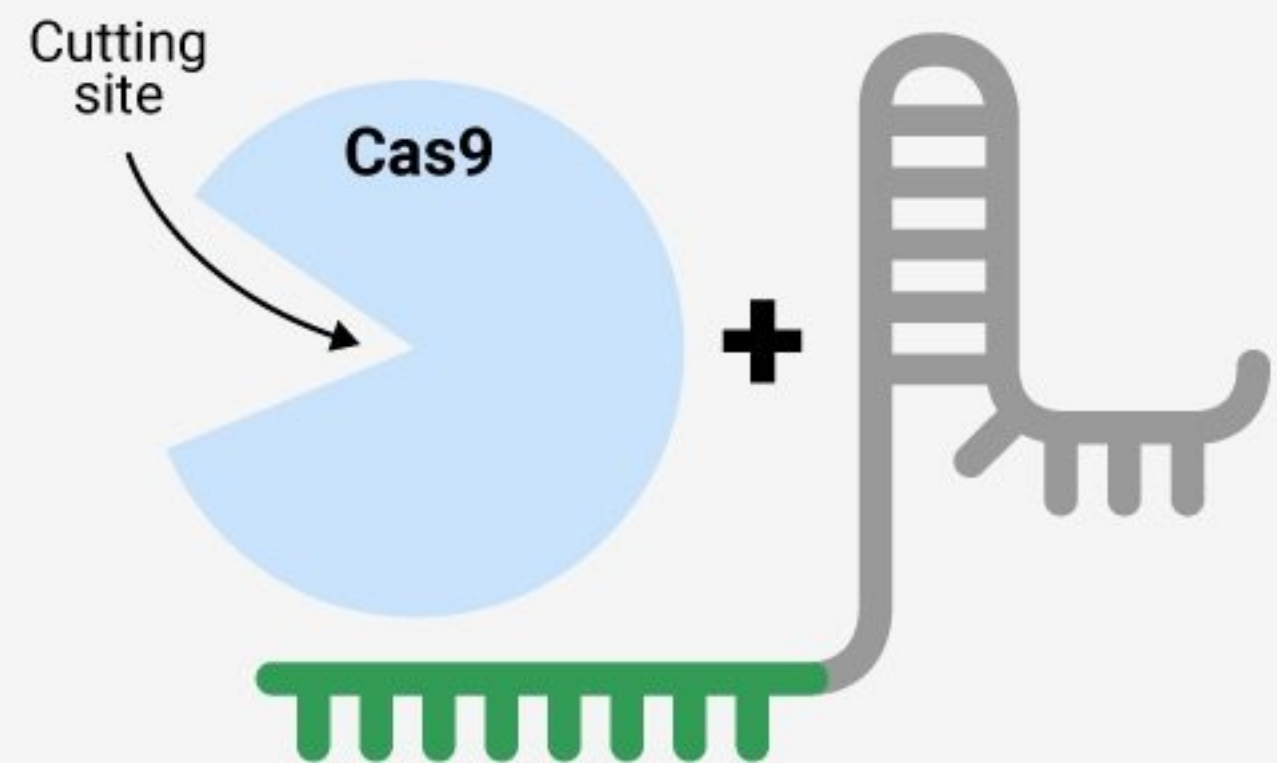


# EDITING A GENE USING THE CRISPR/CAS9 TECHNIQUE

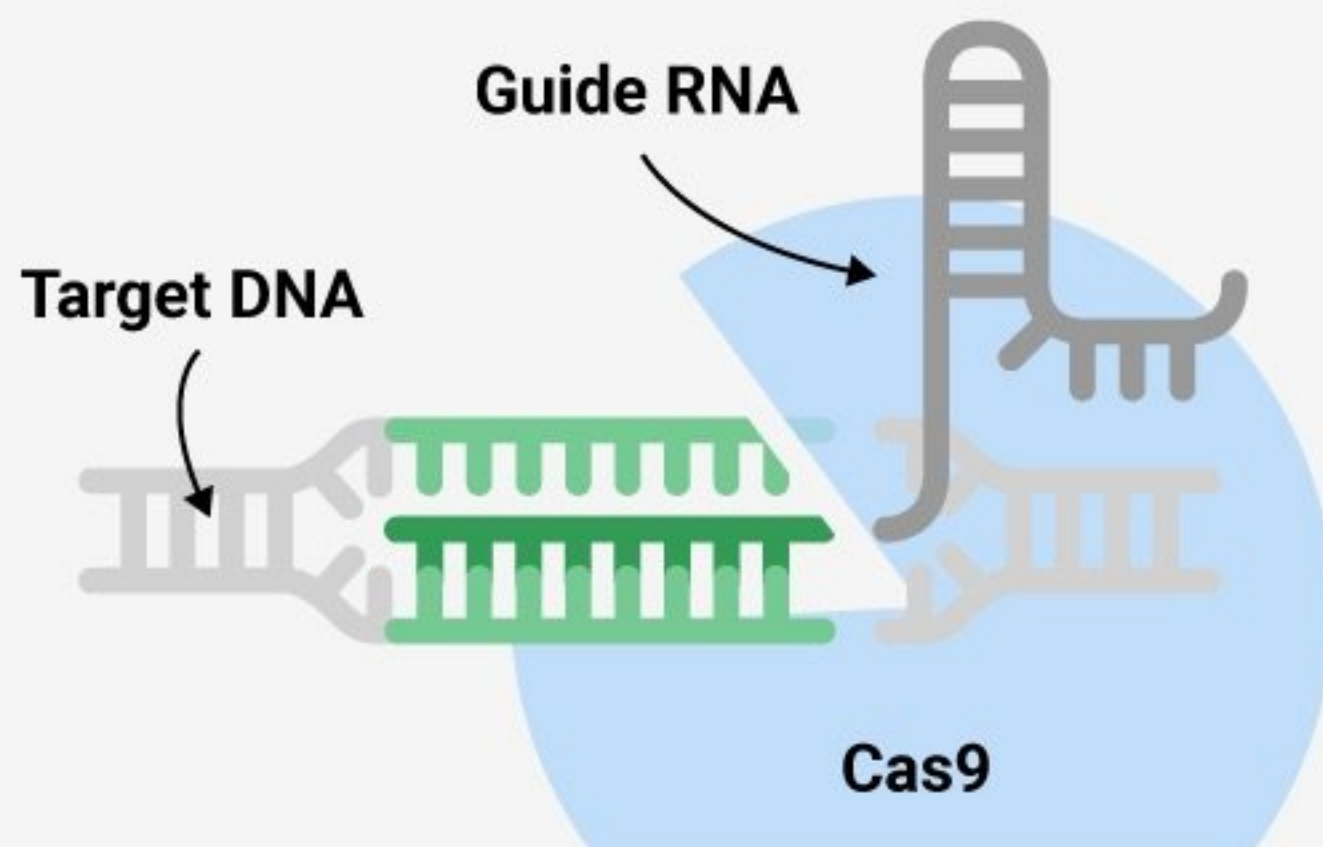
- 1** Scientists create a genetic sequence, called a “guide RNA,” that matches the piece of DNA they want to modify.



- 2** This sequence is added to a cell along with a protein called Cas9, which **acts like a pair of scissors** that cut DNA.



- 3** The guide RNA homes in on the target DNA sequence, and Cas9 **cuts it out**. Once their job is complete, the guide RNA and Cas9 leave the scene.



- 4** Now, another piece of DNA is swapped into the place of the old DNA, and **enzymes repair the cuts**. Voilà, you’ve edited the DNA!

