

May Teacher Meet on CRISPR - Big Questions from Great Teachers

[Peter Kritsch](#)

On Tuesday, May 18th, we had our second Biotechnology Teacher Meet, gathering online to discuss CRISPR. This is an exciting topic for Biotech teachers and students. Understanding how this technology works and is being applied is important as it is rapidly being used to edit genes affecting genetic disorders and potentially even gene drives.

While we spent a lot of time talking about how CRISPR works, we also wrestled with how to help our students appreciate it as well. What [articles/videos/animations](#) are available that help to summarize the main concepts and applications? Do we focus on the ease of CRISPR as a gene-editing tool in comparison to the other gene modification technologies such as restriction enzymes? Are [paper/pencil manipulatives](#) to model CRISPR sufficient to comprehend how CRISPR works or are there [lab activities](#) which can be done in the classroom that clearly demonstrate CRISPR in action?



An example of a hands-on CRISPR activity

These questions and more demonstrated to me that these teachers are doing what great science teachers should always be doing - learning more about new developments and being passionate about sharing their new knowledge with their students in a way which helps students understand potentially very difficult topics. And it's that last part which cannot be emphasized enough. Great science teachers don't just relay information - they synthesize the important concepts and deliver them in a way that allows students to understand AND

experience them so they too can explain these concepts to others. This is not an easy task in Biotechnology. The concepts can be very dense and technical. I applaud these teachers for trying to determine the salient points regarding CRISPR and critically thinking about how to teach them to their students.

I am eagerly looking forward to continuing this series next fall. In the short run, be sure to look through [this document](#) for a complete list of CRISPR resources we discussed. Thank you!