

**Explanation:**

In this picture, there's a scientist in a lab working on a plant. The scientist is carefully adding a glowing DNA strand to the plant, which shows how scientists use tiny, precise technology to change the genes of living things. By the experimentation of the scientist, there has been a change happening to the plant which is represented by the red arrows. This change makes the plant better, like more resistant to pests and diseases, or the exact opposite where it harms the plant and it dies. The output of the drawing represents the final outcome of the used techniques and technology of the scientist in the illustration. This picture shows how scientists use special techniques to make plants, animals, and other living things better for different reasons, like making our food safer and more helpful.

Insights:

GMOs, which stands for genetically modified organisms, are living things that scientists change by adjusting their DNA, as explained by Lallanilla in 2019. This can be really helpful because it makes plants and animals better in different ways, like growing more food, saving money on making things, needing fewer chemicals, and improving the quality of food. It can even help with our health. Nanotechnology is about working with super tiny stuff, like a hundred million times smaller than a grain of sand. It's like building really small machines by moving really tiny pieces like atoms and molecules. This can make things stronger, lighter, and

better at conducting electricity, among other things. This information is supported by PublicHealth and the NNI (National Nanotechnology Initiative). Both GMOs and nanotechnology have the potential to make our lives better in many cool ways.

Reference:

Lallanilla M., 2019, What Are GMOs and GM Foods?

<https://www.livescience.com/40895-gmo-facts.html>

Phillips T., 2008, Genetically Modified Organisms (GMOs): Transgenic Crops and Recombinant DNA Technology

<https://www.nature.com/scitable/topicpage/genetically-modified-organisms-gmos-transgenic-crops-and-732/#:~:text=Some%20benefits%20of%20genetic%20engineering,to%20the%20world's%20growing%20population.>

PublicHealth, N/A, Nanotechnologies

https://ec.europa.eu/health/scientific_committees/opinions_layman/en/nanotechnologies/l-2/1-introduction.htm

NNI, N/A, Applications of Nanotechnology

<https://www.nano.gov/about-nanotechnology/applications-nanotechnology>