GENETICALLY MODIFIED (GM) FOODS

1. Read the passage on genetic engineering and answer the questions. Use the words below to complete the sentences correctly.

Genetic engineering has been used to make some pretty cool plants. At the University of Washington, genetic engineers created trees that could absorb dirty water and make it clean again before the water is released into the atmosphere. Genetic engineers have also developed trees that grow super-fast so that they can create stronger, higher quality wood.

Just like genetically modified animals, there are plants that humans eat than have been genetically modified. For example, the grapple. What is the grapple, you ask? Oh, it's just an apple that tastes exactly like a grape! Pretty tasty, but definitely not natural.

a. A person that practices genetic engineering is called a _____.

b. A tree can be created to make clean water after absorbing _____.

c. A tree can also be created that grows super-fast to give stronger, better quality _____.

d. A grapple is a combination between an_____ and a _____.

2. Watch the video at the following link and draw a line from the genetically modified organism to the matching advantage. https://www.youtube.com/watch?v=CIRyCjL_weo

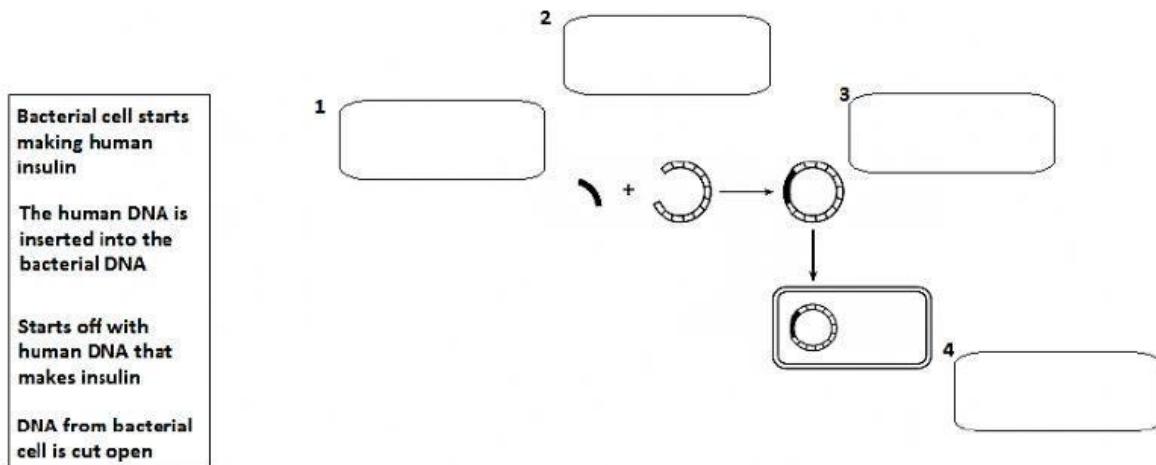| GM ORGANISM | ADVANTAGE |
|---|---|
| Vaccinated Bananas | Tomatoes ripen and rot more slowly. |
| Purple Tomatoes | Human milk gene put into cows so they make human cow's milk |
| Pigs/ Swine | Eating a banana may prevent diseases such as Hepatitis. |
| Venomous Cabbage | Plants remove 91% of the pollution from underground water. |
| Square Watermelons | Cabbage makes scorpion venom to kill bugs that eat it. |
| Glofish | Pigs produce less smelly, less toxic poop. |
| Cow's Milk | Tomatoes have darker skin full of antioxidants to prevent cancer |
| Flava Savr Tomatoes | Fish a warning signs of pollution or may be a pet |
| Pollution Plants | Shape is good for decoration or easy stacking. |

3. Label the diagram of the genetic engineering technique below by dragging the correct label.

2

1

3

Bacterial cell starts making human insulin

The human DNA is inserted into the bacterial DNA

Starts off with human DNA that makes insulin

DNA from bacterial cell is cut open

4

4. Write **ADVANTAGE** or **DISADVANTAGE** for the following statements about GM crops.

a). The amount of crops grown will increase._____

**b)** The taste of the modified crop will not be as delicious as the natural crop._____

c) The cost of buying food will be less. _____

**d)** More crops can be grown in places that are colder or have less rain. _____

e) People might develop new allergies to a modified crop. _____