Yellow Dent Corn:
A Genetic Engineering Activity

BLACKLINE MASTER

Use index cards to demonstrate how corn and genetically engineered corn react differently to disease. Side one of each index card will represent the original organism, specifically Yellow Dent corn plants. When disease hits a field of regular corn, it spreads quickly because all the plants are the same. Side two will represent genetically engineered corn. With this type of corn, the field still gets a disease, but its spread is controlled because the corn plants have been genetically engineered to resist the disease.

Regular Corn:

1. Mark side one of each card with a "C" For Yellow Dent corn.

2. Give each student one card.

3. Instruct each student to have five other students write their names on the side of the card where the "C" was written and to remain standing when they are finished.

4. You will represent the disease. Touch one of the students. That student sits down (they are "dead") and reads the names on her card. As the names are read, those students also sit since they have been "touched" by the disease.

5. Have another of the seated "dead" read the names on their card. This process continues until almost all of the students are sitting.

6. Ask students to explain why the disease spread so fast (they are genetically similar).

Genetically Engineered Corn:

1. Flip over each card and label one-fourth of the cards with "C" for Yellow Dent corn and three-fourths with "CGE" for "Corn that has been Genetically Engineered."

2. Repeat steps 2-6 above. This time only those students who are connected to the diseased "C" and are "C" themselves will sit. The "CGE" don't die even if they are touched by disease.

3. Almost all of the students will remain standing ("alive").

4. Ask students to explain why the disease didn't spread as fast among the genetically engineered corn plants as it did among the regular corn. In which cornfield would you need to use more chemicals to control disease? Why?

5. Ask students to summarize what this simulation symbolized.

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