***This is Only a Simulation!***

Inthis genetic analysis simulation,*Botana Curus* is a valuable plant because it produces Curol. Curol is a compound used for treating certain kinds of cancer. This compound cannot be produced in the laboratory and thereby requires natural sources of production. *Botana Curus* grows very slowly and is on the endangered species list, so its ability to provide Curol in large quantities is limited.

Our scientists are now challenged to find other plant species that may also produce curol so that we can continue the very important task of keeping society healthy and cancer-free.

Our junior geneticists know that species which are more closely related to *Botana curus* are more likely to produce the important substance: Curol! So, they investigated three similar plant species that may be related to *Botana Curus* and are also abundant in nature: species X, species Y and species Z. To accomplish this tremendous task, students gathered structural and molecular evidence by performing the following laboratory procedures:

* Comparison of the structural characteristics of leaves
* Comparison of the structural characteristics of seeds
* Comparison of the structural characteristics of stems viewed through a microscope
* Paper chromatography of plant pigments
* Chemical test for Enzyme M
* DNA analysis of amino acid sequences

**Results are in: Species Z is the closest!**