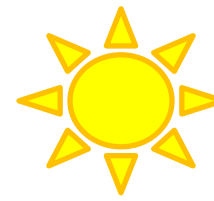


Biotechnology 2013



The new science from the past

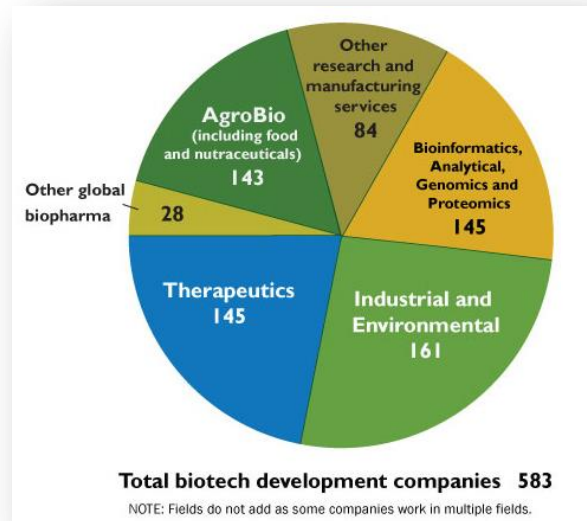


What is biotechnology?

Biotechnology is the study of biomolecular processes to create technology, methods, and products that help improve our daily lives.

How is it used?

Biotechnology is used to make antibiotics, transgenic plants, DNA manipulation in both animals and plants, to make cheese, and much more.



Introduction to experiment

This experiment will show how you can break down 2 membranes to see the bananas DNA. This is a method that scientist use to examine the DNA's structure. They can then apply this knowledge to make advancements in technology and products.

Materials

- 1 banana
- 70% or 50% alcohol
- pipet
- beaker
- coffee filters
- shampoo with EDTA
- salt



Details

In this experiment the alcohol and the shampoo will break down the membranes that surround the DNA. Once the alcohol is added the DNA begins to clump together.

History

Biotechnology has been used since 500 B.C., which is when soybean curd was used to treat boils in China. Using the fermentation process they were able to make an ointment that treated boils. This is an example of looking at the world around us and creating a product that helps improve our life.



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