

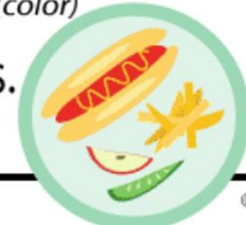
MAD LIBS

- Mad Libs is a word game where one player prompts another for a list of words to substitute for blanks in a story; these word substitutions have a humorous effect when the resulting story is then read aloud.

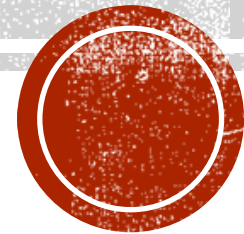


Lunch Room!

Make sure your lunch Suitcase is
(container)
filled with nutritious bearded food. Do
(adjective)
not go to the angry food stand across
(adjective)
the street from school. The hamburgers they
serve are fried in Grandma and are made
(noun)
of Kitten meat. So take a sandwich made
(animal)
of carrots or peas it's much
(vegetable) (vegetable)
healthier! Drink yellow milk instead of
(color)
hairy colas.
(adjective)



FOOD AND AGRICULTURE



HUMANS AND NUTRITION



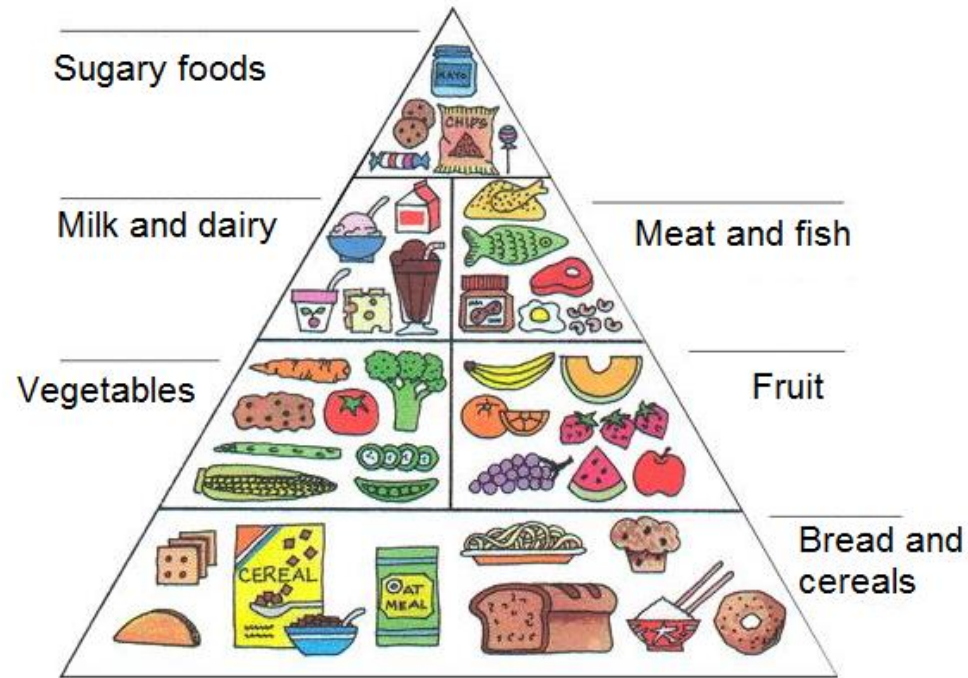
- Humans use food both as a source of energy and as a source of materials for building and maintaining body tissues.



MAJOR NUTRIENTS IN HUMAN FOODS

Nutrient	Composition	Sources	Energy yield	Function
Carbohydrates	sugars	wheat, corn, and rice	4 Cal/g	is the main source of the body's energy
Lipids (oils and fats)	fatty acids and fatty alcohols	olives, nuts, and animal fats	9 Cal/g	helps form membranes and hormones
Proteins	amino acids	animal food and smaller amounts from plants	about 4 Cal/g	helps build and maintain all body structures

HUMANS AND NUTRITION



- A person's diet is the type and amount of food that he or she eats.
- Malnutrition
 - a condition in which people do not consume enough calories or do not consume the right amount of nutrients needed for the body.
- Top 3 Crops Grown Worldwide
 1. Rice
 2. Corn
 3. Wheat



THE ECOLOGY OF FOOD



- As the human population grows, we will start to face challenges with feeding everyone
 1. Habitat loss
 2. Soil Erosion/Land degradation
 3. More energy/chemicals needed
 4. Overharvesting of wildlife
 5. Overgrazing



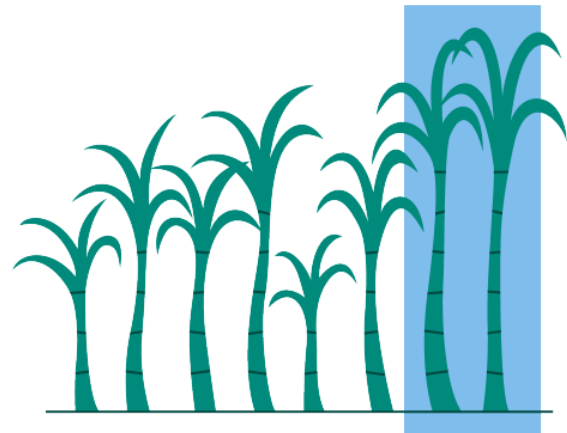
THE ECOLOGY OF FOOD



- How can we avoid the issues faced with feeding everyone?
- **Answer:** Agriculture with high efficiency
 - This means that the farmer can produce a high yield of crops with little resources used
 - This benefits both the farmer and the consumer
- In order to have agriculture with high efficiency, crops must have the right genes.
- There are 2 ways to produce crops to have the genes you want them to have.
 1. Selective Breeding
 2. Genetic Engineering



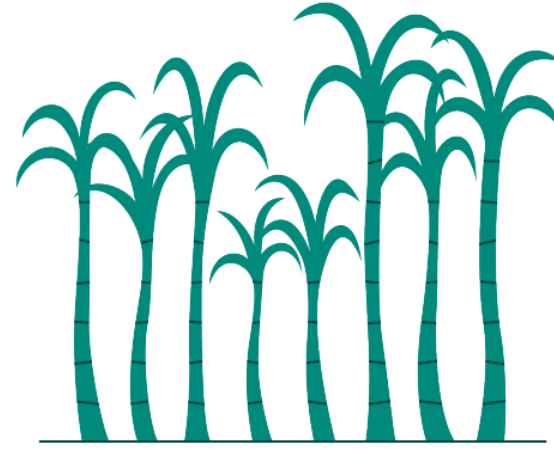
Population 1



selected
parents



Population 2



SELECTIVE BREEDING

- In selective breeding, farmers take two plants that have desirable genetic traits and breed them together to produce offspring with the desirable traits of both of the parents.
- For example, a farmer crosses a mildew-resistant pea plant with a high-yielding pea plant in order to get a high-yielding, mildew-resistant plant.
- Using the process of selective breeding, it can take many years to produce a new population with just the right traits.



ENGINEERING A BETTER CROP

- Genetic engineering is a technique in which genetic material in a living cell is modified for medical or industrial use.
- Scientist use genetic engineering to transfer desirable traits, such as...
 1. Resistance to pests
 2. Resistance to diseases
 3. Longer shelf life
 4. Higher yield per crop
 5. Growing time
 6. Size
 7. Nutritional value
 8. Improved look
 9. Etc.
- Any food that is genetically engineered is considered a GMO

Watch this video

<https://www.youtube.com/watch?v=7TmcXYp8xu4>

