



Nutrition

Mr. Bliss 7th Grade Health



Why do we NEED food?

- _____
- To build, repair, and maintain body tissues
- To regulate body processors (i.e. digestion and metabolism)

What influences which foods we eat?

- _____
- _____
- _____
- _____
- _____
- _____

6 Main Nutrient Groups

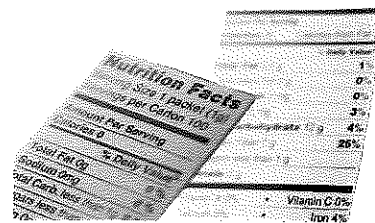
- Carbohydrates
- Fats
- _____
- Minerals
- _____
- Water

ENERGY in food

- ENERGY is measured in _____.
- A calorie is a unit of energy produced by food used by the body.
- Diet
 - The _____ and _____ that we choose to consume on a daily basis.

Nutrients

- All Substances in food that our body needs to stay alive.
- _____
 - The process of taking in food the body needs to grow, develop and work properly.



Carbohydrates

- Main source of _____ for the body
- Includes SUGARS, STARCHES, AND FIBER
- Supply ___ calories of energy per (1)gram
- Excess carbs are stored as fat.
- % ___ - % ___ of caloric intake should be from Carbohydrates.

Quick Math

- If you are taking in 2,000 calories a day and you want carbohydrates to be compile %60 of those calories, how many calories of carbs are you taking in?
- How many grams of carbs are you taking in?

Sources:

- _____
- Beans
- Potatoes
- _____
- Breads
- Rice
- Bran
- Popcorn
- _____

2 Types of Carbohydrates

- _____ Carbs
 - Sugars that enter the blood rapidly and provide _____ energy
 - Sugars from fruits, honey, and milk
- _____ Carbs
 - Starches and _____
 - _____, such as bread and pasta, and vegetables, such as potatoes and beans.

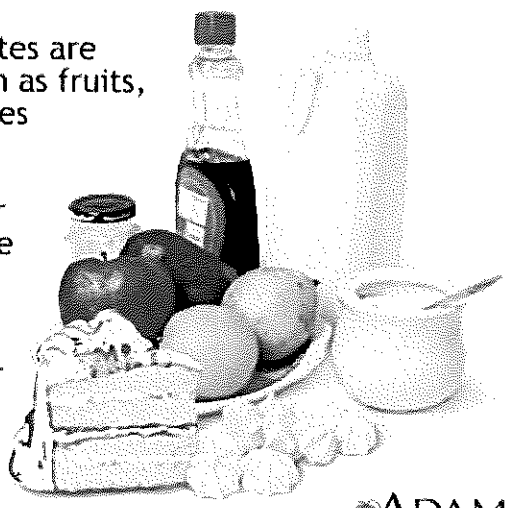
SUGAR

- MOST AMERICANS CONSUME ABOUT ___ LBS OF SUGAR EACH YEAR
- MUCH IS _____ IN _____ FOODS
- CAUSES HEALTH PROBLEMS SUCH AS _____, EXCESS _____
AND _____
- AVOID EXCESS

Simple carbohydrates

Simple carbohydrates are found in foods such as fruits, milk, and vegetables

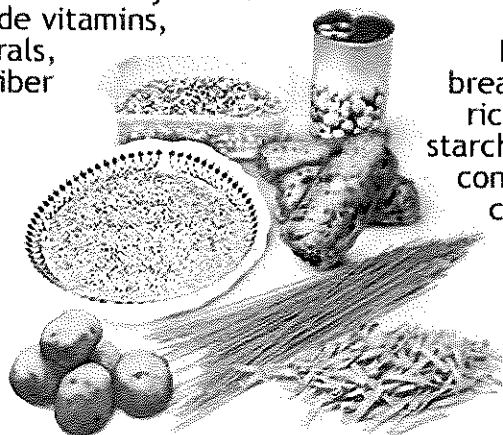
Cake, candy, and other refined sugar products are simple sugars which also provide energy but lack vitamins, minerals, and fiber



ADAM.

Complex carbohydrates

Complex carbohydrates provide vitamins, minerals, and fiber



Foods such as breads, legumes, rice, pasta, and starchy vegetables contain complex carbohydrates

ADAM.

Complex Carbohydrates

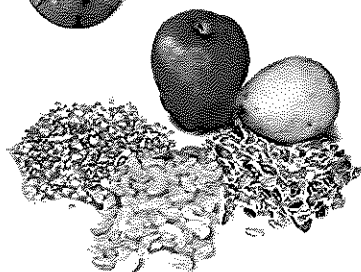
- _____ is a food substance that is made and stored in most plants. They provide long-lasting energy
- _____ is the part of the grains and plant foods that cannot be digested.
 - Helps move food through the digestive system
 - Helps prevent _____ and other intestinal problems
 - Helps reduce **blood** _____ **level** and your risk of developing _____ **disease**.

FIBER

Soluble fiber can be found in foods such as oatbran, barley, nuts, seeds, beans, lentils, fruits (citrus, apples), strawberries and many vegetables



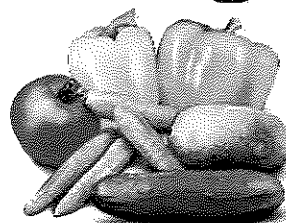
Soluble fiber sources



Insoluble fiber is found in foods such as whole wheat and whole grain products, vegetables, and wheat bran



Insoluble fiber sources



ADAM.

So, Why do we need Carbs?

- If a diet is lacking carbohydrates, the body then turns to proteins for ENERGY and the protein ***cannot*** be used for its other roles.

PROTEINS

- A nutrient that is needed
 - For _____
 - To _____, _____, and maintain body tissues
 - To regulate body processes
 - To supply energy
- Supply **calories of energy per 1 gram of food**

Proteins

- A daily diet deficient in proteins may _____ growth, affect the development of certain tissue, and affect your mental development
- Excess protein is burned as energy or _____.
- % -% of caloric intake should be from Proteins.

2 Kinds of Protein

■ Complete

- A protein that contains all the essential amino acids; come from _____ sources.
 - _____ are the building blocks that make up proteins
 - _____ AA's are the _____ amino acids the body cannot produce (there are 20, your body makes 11)
- Examples: meat, fish, poultry, milk, yogurt, and eggs
- The soy bean is the only plant food that provides all nine of the essential amino acids

2 Kinds of Protein

■ Incomplete

- Protein from _____ sources
- Fall into 3 categories
 - Grains (whole grains, pastas, and corn)
 - Legumes (dried beans, peas, and lentils)
 - Nuts and seeds

FATS

- Provide energy and helps the body store and use _____
- One gram of fat supplies ____ **calories**
- Fats store and transport fat-soluble vitamins
- _____ is a vitamin that dissolves in fat and can be stored in the body
 - Vitamin __, __, __, and __

FATS

- The body needs fats to maintain body heat, _____ and _____ vitamins, and maintain an energy reserve, and build brain and nerve cells
- % _____ of caloric intake should come from Fats.

<http://abcnews.go.com/Health/HeartDiseaseLivingWith/story?id=4223144>

2 Types of Fats

- Saturated
 - From dairy products, solid vegetable fat, and _____ and poultry
 - Usually _____ at room temperature
 - Should be _____ because it contributes to the level of cholesterol in a persons blood

Type of Saturated...

- Tran saturated (Trans) fat-made when manufacturers add _____ to the _____ in vegetable oils. Food stays _____ longer. Found in _____, crackers, bakery goods, _____. Just as bad as saturated fat!

2 Types of Fats

- Unsaturated
 - Obtained from _____ products and fish
 - Usually _____ at room temperature
 - Example – _____ and vegetable oil
 - Two types
 - Polyunsaturated- sunflower, corn, and soybean oils
 - Monounsaturated- olive and canola oils



Exact Replica Fat & Muscle, 5lbs. each

VITAMINS

- Helps the body with a _____ of _____
- Fat-soluble
 - Vitamin ____, ____, ____, and ____
 - Are _____ in the body's fat
- Water-soluble
 - Vitamin ____ (helps fight common cold, B, Niacin, _____, and Folacin
 - _____ be stored in the body!
 - See "Table 2: Major food sources of water-soluble foods"

Minerals

- Substances that the body uses for a variety of reasons such as...
 - Form healthy _____ and _____
 - Keep _____ healthy
 - Keep _____ and other organs working properly

MINERALS

- _____ - Builds strong _____ and _____
- Phosphorus
- Fluoride
- _____
- _____ - Helps build _____
- Potassium - Helps maintain your bodies _____ balance
- _____

What's the Difference???

- | | |
|--|---|
| ■ <u>Vitamins</u> | ■ <u>Minerals</u> |
| ■ While cooking, vitamins are easily destroyed because of heat or chemical agents. | ■ Are not vulnerable to heat, chemical reactions or sunlight. |
| ■ DESTRUCTABLE | ■ INDESTRUCTABLE |

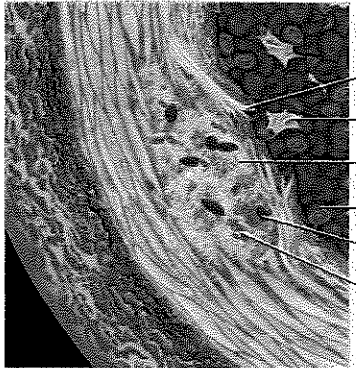
SODIUM

- ONLY NEED ABOUT _____ THAN ONE-THIRD OUNCE (_____) EACH DAY
- FOUND IN MOST FOODS WITHOUT ADDING ANY ADDITIONAL SALT TO YOUR FOODS
- _____ FOOD CONTAIN HIGH AMOUNTS
- TOO MUCH LEADS TO HEALTH PROBLEMS such as _____

CHOLESTEROL

- _____ - _____ substance made by the body and _____ in certain foods
- Cholesterol in food is called _____ cholesterol
- Dietary cholesterol is found in foods of _____ origin, such as meats and dairy products

Cut-section of artery

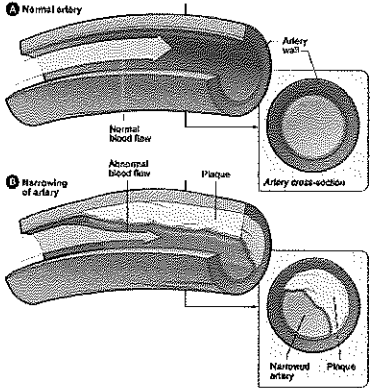


Tear in artery wall
 Macrophage cell
 Cholesterol deposits
 Red blood cell
 Macrophage foam cell
 Fat deposits

•LDL – _____
**CHOLESTEROL
 LEAVES DEPOSITS
 ON WALLS OF**

•HDL – _____
**CHOLESTEROL
 CARRIES EXCESS
 AWAY TO _____ FOR
 EXCRETION**

ADAM.



1 Normal artery
 Normal blood flow
 Artery wall
 Artery cross-section

2 Narrowing of artery
 Abnormal blood flow
 Plaque
 Narrowed artery
 Plaque

WATER

- THE _____ NUTRIENT
- MAKES UP ABOUT **60%** OF THE BODY
- CARRIES OTHER _____ THROUGH THE BODY, HELPS IN _____, REMOVES WASTE FROM THE BODY, _____ JOINTS, AND KEEPS BODY FROM _____
- MUST BE CONSTANTLY REPLACED
- _____ IS A SIGN OF DEHYDRATION
- CANNOT LIVE MORE THAN _____ WITHOUT IT
- ALL THE BODY NEEDS (____ OZ PER DAY)... BETTER THAN OTHER DRINKS

CAFFEINE

- CHEMICAL FOUND IN _____ THAT MAKE THE HEART BEAT _____
- TOO MUCH MAKES YOU _____ AND CAN BE _____ FORMING
- SMALL AMOUNTS FOR _____ ARE OKAY.....NOT A GOOD CHOICE FOR GROWING _____

NUTRIENT DENSITY

- FOODS THAT CONTAIN _____ AMOUNTS OF NUTRIENTS (vitamins & minerals) RELATIVE TO THE NUMBER OF _____ THEY PROVIDE
- Examples: Lean meats, _____, poultry, legumes, fruits, _____

Antioxidants

- Antioxidants- protect _____
_____ from damage caused by normal
_____ process & certain cancers.
(vitamins ___ & ___ are 2 of the most
powerful)

Name _____ Class _____ Date _____

Chapter 10 **Personal Inventory**

Healthy Mealtimes

There is more to mealtime than just enjoying what you eat. In fact, two other factors also influence the health of your digestive system: how you eat and the safe preparation of your food.

Complete each statement below. Then, answer the last question based on how you completed the statements.

1. My favorite meal of the day is _____
because _____

2. I drink these beverages with my meals _____

3. On an average day, I spend this much time eating each meal:

breakfast _____

lunch _____

dinner _____

4. The people I eat my meals with are _____

5. I usually eat meals while sitting _____

6. If I prepare a meal, I handle food safely by _____

Read through your answers. Which of your habits do you think are good ones? Explain which habits could use improvement.

Chapter 9

Personal Inventory

Food Choices

Food choices are affected by many things, including moods, companions, and family background. What kinds of foods do you choose in different situations? Complete each statement below. Then, answer the questions that follow.

1. When I am home sick with a cold,
I usually eat _____
2. When I eat out with friends,
I usually eat _____
3. When I am in a hurry for breakfast,
I usually eat _____
4. When I have plenty of time for breakfast,
I usually eat _____
5. When I eat lunch at school,
I usually eat _____
6. When I eat lunch at home on weekends,
I usually eat _____
7. When I am bored or depressed,
I usually eat _____
8. When there is a special family celebration,
I usually eat _____
9. When I have an important test or game the next day,
I usually eat _____

How do different situations influence your food choices? _____

Do any of your food choices reflect your family background or traditions? Which ones? _____


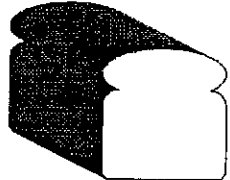
CARBO CHARGED (DN-12)

Carbohydrates are starches and sugars that come mainly from plant food. Carbohydrates provide the body with much of the energy it needs each day. There are two types of carbohydrates: COMPLEX, or starches, and SIMPLE, or sugars.

DIRECTIONS: Fill in the words below to give some examples of some complex and simple carbohydrates.


Complex Carbohydrates:

1. ___ S ___
2. ___ T ___
3. ___ A ___
4. ___ R ___
5. C ___
6. ___ H ___
7. ___ E ___
8. ___ S ___

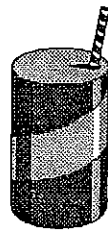



CLUES

1. Type of cooked potato
2. Type of pasta
3. Type of cooked potato
4. White, wheat, rye, etc.
5. Found on pizza, bread, rolls, etc.
6. Type of pasta
7. Type of whole-grain bread
8. Hard, dinner, crescent, etc.



JELLY



Simple Carbohydrates:

1. S _____
2. _____ U _____
3. G _____
4. ___ A _____
5. ___ R _____
6. _____ S _____

CLUES

1. 7-Up, Coca-Cola, Mountain Dew, etc.
2. Refined, sweet substance found in the home
3. Kind of jelly
4. Kind of syrup
5. Fruit sugar
6. Milk sugar

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Name _____ Date _____

FAT FACTS (DN-14)

DIRECTIONS: Find the letter that matches the number and fill it in on the blank line. Read the information about fat in the diet and discuss.

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

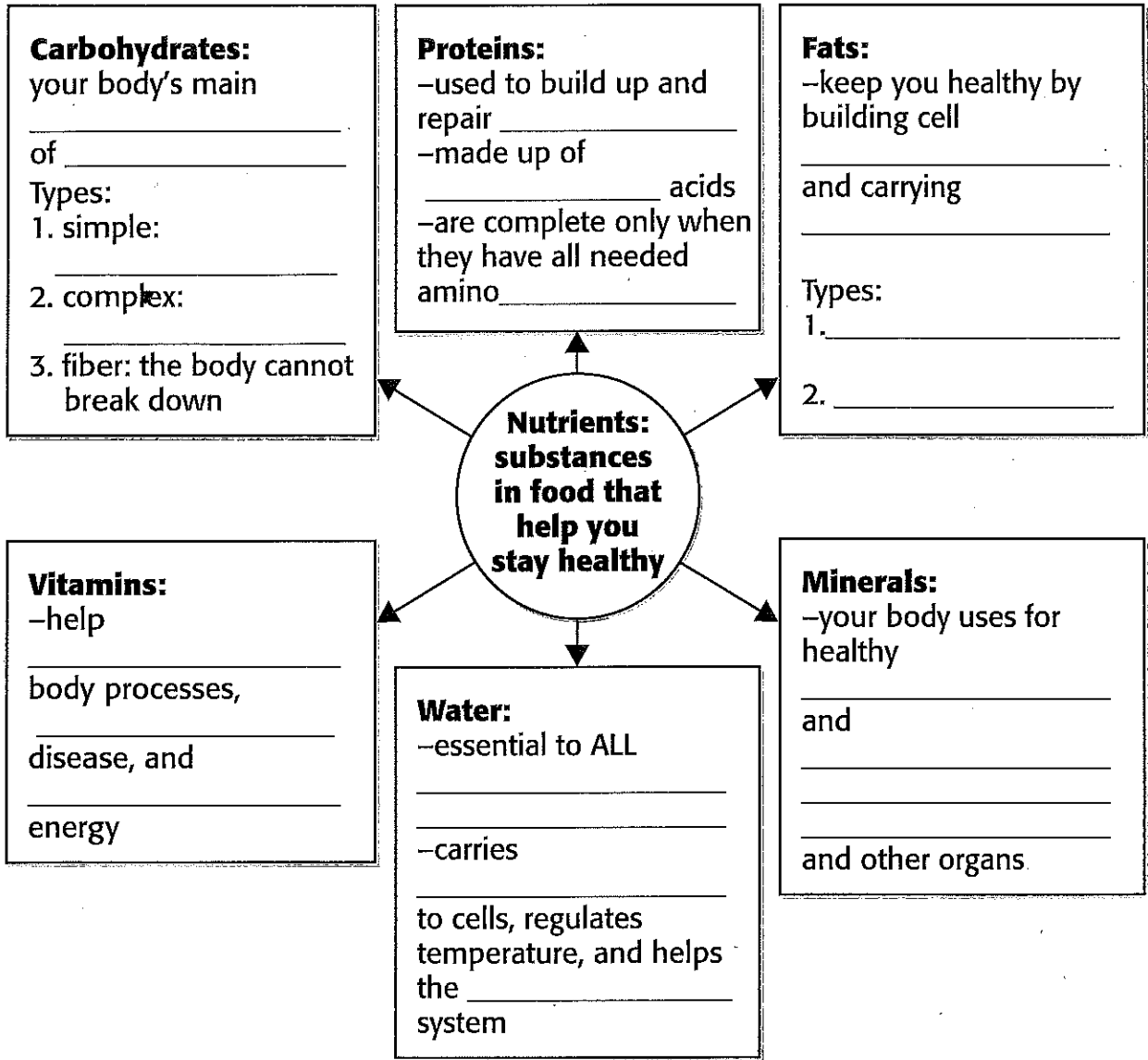
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The building blocks of fats are _____ acids. There are three types:
_____ 6 1 20 20 25
monounsaturated, polyunsaturated, and _____. Fats that remain
_____ 19 1 20 21 18 1 20 5 4
_____ at room temperature are either monounsaturated or polyunsaturated.
_____ 12 9 17 21 9 4
Some examples of polyunsaturated fats include oils made from _____ safflower,
_____ 3 15 18 14
sunflower, _____ cottonseed, and _____. Monounsaturated
_____ 19 15 25 2 5 1 14 _____ 19 5 19 1 13 5
oils are _____, canola, avocado, and _____.
_____ 15 12 9 22 5 _____ 16 5 1 14 21 20
More harmful because they cause the _____ to produce too much
_____ 12 9 22 5 18
_____ are saturated fats, which remain _____
_____ 3 8 15 12 5 19 20 5 18 15 12 _____ 19 15 12 9 4
or semisolid at room temperature. Shortening and margarine are examples and are also referred
to as hydrogenated or partially hydrogenated. Many _____ products are high in
_____ 1 14 9 13 1 12
saturated fats, such as _____, pork, lamb, butter, _____ milk, and dairy
_____ 2 5 5 6 _____ 23 8 15 12 5
products from whole milk. Palm, palm-kernel, and _____ oil are also high
_____ 3 15 3 15 14 21 20
in saturated fats.

It's best to _____ down on _____ the fats and oils we eat to lower our risk of
_____ 3 21 20 _____ 1 12 12
_____ disease.
_____ 8 5 1 18 20

Concept Mapping Activity 4-1

Directions: Complete the concept map on nutrients, using terms and phrases from your textbook.



- Guidelines for Good Nutrition:**
1. Eat a variety of _____ every day.
 2. Do not fill up on foods that are high in _____ and _____.
 3. Match how active you are with the _____ you eat, and include _____ to balance the food you eat.
 4. Read the _____ label that is on all packaged food and make healthy choices about what you eat.

Enrichment Activity 4-2

Healthy Eating

Directions: Read the following descriptions of people and their eating habits. In the space provided, write your recommendations for them. (1) Be sure to be specific about how each person can improve his or her eating plan in terms of the food groups. (2) Explain the changes this person must make, considering the influences on their food choices. (3) Indicate the calorie need for each person.

1. Mary is 15 years old. Her parents work late and seldom prepare meals. She loves to watch television and talk on the phone while snacking on chips and cookies. At the same time, Mary is aware that vitamins are vital to good health, so she takes large doses of vitamin and mineral supplements.

Your Recommendations:

2. Frank, an attorney, is almost 60 years old. He is a third degree black belt who daily leaves work and teaches the martial arts. He is so busy that he only eats one meal a day, which he gets from a fast food drive through. For energy, he constantly sips on fruit drinks.

Your Recommendations:

3. Jerry is a 13 year old from an Italian family. Jerry's mother delights in feeding him rich, delicious Italian food, and he delights in eating it. To compensate for all the calories he consumes, Jerry works out for two hours every evening. In spite of all his lifting and running, Jerry is having a difficult time maintaining a healthy weight.

Your Recommendations:

Student Name: _____

Nutrition Foldable Grading Rubric

Things I am looking for...

1. Is each tab labeled correctly with each different nutrient?
2. Are the following items included under each nutrient?
3. Is each nutrient and item described with the correct information?
4. Were you creative with your foldable? ☺

Point Values

Name	= 5 points
Six Major Nutrients tab	= 5 points
Nutrients listed on each tab	= 7 points
Information included in each tab	= 33 points
Total Points	= 50 points

_____ Carbohydrates Purpose (4 points)

- _____ Simple Carbohydrates
- _____ Complex Carbohydrates
- _____ Dietary Fiber

_____ Proteins Purpose (4 points)

- _____ Amino Acids
- _____ Complete Proteins
- _____ Incomplete Proteins

_____ Fats Purpose (5 points)

- _____ Saturated Fats
- _____ Unsaturated Fats
- _____ Trans Fats
- _____ Cholesterol

_____ Vitamins (3 points)

- _____ Water Soluble
- _____ Fat Soluble

_____ Minerals (4 points)

- _____ Iron
- _____ Calcium, Magnesium
and Phosphorus
- _____ Potassium and Sodium

_____ Water (4 points)

_____ Vocabulary (9 points)

- _____ Diet
- _____ Nutrition
- _____ Nutrients
- _____ Sugar (fact)
- _____ Sodium (fact)
- _____ Caffeine
- _____ Calories
- _____ Nutrient Density
- _____ Antioxidants

Total Score: _____ /50

Nutrition Study Guide

- **Know all of the Nutrients and their descriptions**

- H₂O
 - How many cups/oz of water should you have a day?
- Carbohydrates
 - Simple
 - Complex
 - Dietary Fiber
- Proteins
 - Amino Acids
 - Complete
 - Incomplete
- Minerals
 - Iron
 - Calcium
 - Magnesium
 - Phosphorus
 - Potassium
 - Sodium
- Fats
 - Saturated
 - Unsaturated
 - Trans Fats
 - Cholesterol
- Vitamins
 - Vitamin C- helps with the common cold
 - Water Soluble
 - Fat Soluble

- **Know the equations**

- 9 calories per 1 gram of fat
- 4 calories per 1 gram of protein
- 4 calories per 1 gram of carbohydrates

How to find calories

- Fat in grams (x) 9 = calories
- Carbohydrates in grams (x) 4 = calories
- Proteins in grams (x) 4 = calories

How to find percentage

- $\text{Calories (-:-) total calories per serving (x) 100 = Percentage}$