

## Proteins: The Keys of Life

### Proteins

Organic because they have carbon and hydrogen

Excellent sources include beans, nuts, fish, poultry, dairy, meat

Digested or broken down

Building blocks called amino acids

Absorbed in the small intestine

Carried by the bloodstream to our cells

Nitrogen and hydrogen compose the amino group

Carbon and oxygen compose the carboxyl group

Variable means to change

20 amino acids, therefore only 20 variable groups

20 letters in the protein "alphabet"

There can be over 2 million known proteins with only 20 amino acids due to the different combinations of these 20 amino acids.

Once proteins are broken down into amino acids they can be transported by the circulatory system ....  
And reassembled into other proteins

Amino acids go from high concentration in the blood to low concentration in the cells via diffusion.

The amino acids are needed at the ribosome as this is where proteins are made.

Every protein differs in structure depending on the number and order of amino acids.

Each protein will fold into a unique shape. The shape of each protein will determine its function.

### Matching

- |      |      |      |
|------|------|------|
| 1. E | 4. B | 7. D |
| 2. G | 5. C | 8. F |
| 3. A | 6. H |      |

