Lycée Privé Jeanne d’Arc School Year: 2014-2015

Teacher: Mr RAMDE Level: Tle D

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**Text: Essential Minerals for the Body**

 The most essential minerals for a good healthy body are iodine, copper, calcium, phosphorus, manganese, sodium, potassium, magnesium, chlorine, and sulphur. Of course, only iodine comes from the sea. The others come from the soil. All of these mineral elements are necessary for keeping a balanced diet.

 In many countries the soil lacks a number of the essential mineral elements. As a result, the foods grown in the soil are also lacking in minerals. As a consequence, the people living in those countries also may lack essential minerals in their food. In a sense, some persons may be starving in the midst of plenty.

 When the body is hungry for sweets, starches, or fats, it sends signals to the brain. The brain then sends the message to the body and our appetite tells us about the need. This is not always true about the need or “hunger” for minerals. Scientists are making studies to learn more about the signs of mineral hunger.

 In some countries, even in the more modern areas, food can be in abundant supply, but “deficiency diseases” will appear. Each disease shows a lack of vital elements in the diet and essential minerals are the elements most often lacking.

 The thyroid gland, for example, requires iodine. The adrenal glands require magnesium. The pancreas and parathyroid need cobalt and nickel. The pituitary gland needs manganese and chlorine and the gonads require iron.

 Science has discovered that certain minerals (iron, copper, manganese, zinc, and aluminium) have great influence on body functions. They act as the electrifiers or self-starters in the body processes.

 Iron, for example, is important to the blood. A lack of iron in the blood causes anaemia because iron helps in the formation of haemoglobin in the red corpuscles. Red corpuscles are the carriers of oxygen in the blood and necessary for energy.

 Today, scientists are searching for other kinds of food rich in minerals, but which are not grown in the soil.

**Science Vistas, Dean Curry**

***Notes****:*

*Pituitary gland: hypophyse*

***GUIDED COMMENTARY***

*1) Why do some foods lack the essential minerals?*

*2) According to the text, how is it possible to starve in the midst of plenty?*

*3) Are diseases only caused by mineral deficiency? Give two examples and explain how they are transmitted.*

*4) Why is it important to have a balanced diet?*