MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME
INTEGRATED SCIENCE
GRADE 9

Week 2 Lesson 1

Topic: Digestion in animals
Sub-topic: Teeth

Objective: After reading and looking at the related diagrams students will:
1. state accurately what are teeth.
2. relate correctly the types of teeth of an animal to its diet.
3. relate correctly the shape of a tooth to its function.
4. explain what is meant by a dental formula.
5. state the correct dental formula of humans.
6. label accurately a diagram showing the structure of a tooth.
7. state at least four ways how the teeth can be cared for.

Content:

- Teeth are structures present in the mouth of organisms and are responsible for physically breaking down food into smaller pieces.
- The number and shape of the teeth of an animal depend on the food it eats.
- Herbivores have teeth with sharp edges and ridges for cutting and grinding. Teeth grow as fast as they are worn away.
- Carnivores have teeth that are sharply pointed for tearing flesh teeth. They do not wear away and do not stop growing.
- Omnivores have teeth that have features of both herbivores and carnivores.
- Types of teeth: incisor - cut or bite, Canine- tear, premolar (bi-cuspid) - crush and molar - crush and grind.
• Mammals have two sets of teeth during their lifetime
  - Temporary or milk teeth: incisors, canines and premolars. Last from three months to ten years old.
  - Permanent: incisors, canines, premolars and molars. Last for the rest of life.
• Dental formula – describes the number of each type of teeth in terms of the number of pairs present in the upper jaw and lower jaw
• The dental formula of an adult human being is \( i \, 2 / 2, \, c \, 1 / 1, \, pm \, 2 / 2, \, m \, 3 / 3 \)
  \( i \) – incisors \( c \) – canines \( pm \) – pre-molars \( m \) – molars

**Structure of a Tooth**

- Crown is covered with enamel (the hardest substance in the body).
- Dentine is a bone-like substance that makes up the greater part of the internal structure.
- Pulp cavity contains the nerve and blood vessels that keep the tooth alive.
• The tooth is held in place in the jaw bone by a layer of cement and by elastic fibers.
• Care of the teeth
• brushing regularly
• flossing
• staying away from smoking, smokeless tobacco and alcohol
• avoid coffee, tea and soda
• consume a healthy diet
• visit a dental professional once in every six months
• rinse mouth with anti-bacterial mouth wash
• use toothpaste and drinking water that has fluoride present
• limit sugary foods

Home Work
Draw a diagram showing the correct number and arrangement of teeth in the upper jaw of a 32 years old man.