**LESSON DEVELOPMENT THREE**

**VOLUME OF SPHERE**

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| **STAGE/TIME** | **TEACHER’S ACTIVITIES** | **LEARNER'S ACTIVITIES – MIND/HANDS ON** | **LEARNING POINTS** |
| **Step 1**  **Introduction**  **(5 minutes)** | Lets the pupils identify and describe a ball, oranges and globe (if available).  Lets them know that objects like a ball, an orange, etc. are refer as sphere. | Pupils identify and describe ball and orange as round surface.  Pupils understand a ball and an orange as a sphere. | Linking Previous knowledge to the lesson. |
| **Step 2**  **Development**  **(5 minutes)**  **Grouping** | 1. Groups the pupils into four groups – A, B, C, and D.  2. Guide the pupils to choose a leader and secretary for your group.  3. Gives each group learning materials – tin of milk, tomato and milo. | 1. Belong to a group.  2. Choose their leader and secretary.  3. Received learning materials for their group. | Pupil’s group, leader and secretary confirmed. |
| **Step 3**  **Development**  **(5 minutes)** | Introduces the formula for the volume of sphere –  A sphere with radius ***r*** has volume 4/3 π r^3 | Pupils study and interprete the volume as  V = 4/3 x 22/7 x r x r x r | Formula for the volume of sphere |
| **Step 4**  **Development**  **(5 minutes)** | Guides pupils find the volume of –  Calculate the volume of each of these spheres.  1. Radius 21 cm  2. Radius 3 cm | V = 4/3 π r^3  Solution 1 – r = 21 cm  V = 4/3 x 22/7 x 21 cm x 21 cm x 21 cm  = 4 X 22 x 21 cm x 21 cm x 1 cm  =  Solution 2 - r = 3 cm  V = 4/3 x 22/ 7 x 3 cm x 3 cm x 3 cm  = 4 X 22/ 7 x 3 cm x 3 cm x 1 cm  = 113.14 cm ^3 | Working examples |
| **Step 5**  **Development**  **(15 minutes)** | Guides pupils to apply the formula for volume of sphere to find –  1. Radius 6 cm  2. Radius 10 cm  3. Diameter 14 cm | Pupils working | Working Exercise |
| **Step 6**  **Conclusion/Evaluation**  **(5 minutes)** | To conclude the lesson, the teacher revises the entire lesson and links it to the next lesson, and asks the key questions. | Listen, ask and answer questions | Conclusion |