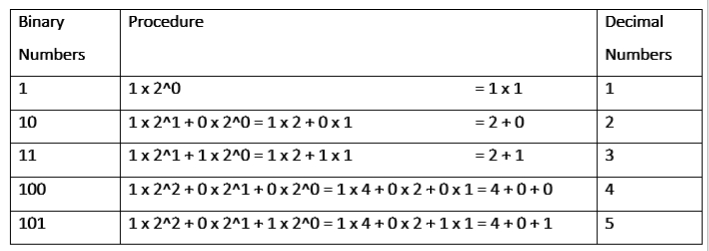
**LESSON DEVELOPMENT TWO**

**CONVERSION OF BASE 10 AND BASE 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **STAGE/TIME** | **TEACHER’S ACTIVITIES** | **LEARNER'S ACTIVITIES – MIND/HANDS ON** | **LEARNING POINTS** |
| **Step 1**  **Introduction – Introductory Activities**  **(5 minutes)** | Guides pupils to divide 1,2, 3 and 4 by 2 (with or remainder).  Tell them that whenever you divide any number by 2, you will have remainder 0 or 1. | 1/2 = 0 R 1  2/2 = 1 R 0  3/2 = 1 R 1  4/2 = 2 R 0 | Linking the Previous knowledge to the new lesson |
| **Step 2**  **Development**  **(5 minutes)**  **Grouping** | 1. Groups the learners into four groups – A, B, C, and D.  2. Guide the learners to choose a leader and secretary for your group.  3. Gives each group learning materials – number charts showing conversion of base 10 to base. | 1. Belong to a group.  2. Choose their leader and secretary.  3. Received learning materials for their group. | Learner’s group, leader and secretary confirmed. |
| **Step 3**  **Development – Groups Activities**  **(10 minutes)** | Asks pupils to divide 5 by 2.  Again, divide 2 by 2.  Then, divide 1 by 2.  ***Wrap up –* 5 base 10 to base 2 is *101.***  Asks them to divide 11 by 2.  Divide 5 by 2.  Again, divide 2 by 2.  Then, divide 1 by 2.  ***Wrap up – 11 base 10 to base 2 is 1101.*** | 5/2 = 2 R 1  2/2 = 1 R 0  1/2 = 0 R 1  11/2 = 5 R 1  5/2 = 2 R 1  2/2 = 1 R 0  1/2 = 0 R 1 | Conversion of base 10 to base 2 |
| **Step 4**  **Development – Groups Activities and Presentation**  **(15 minutes)** | Conversion the following base 10 to base 2 –  1. 15  2. 26. | Work in progress  15/2 = 7 R 1  7/2 = 3 R 1  3/2 = 1 R 1  2/2 = 0 R 1  15 base 10 =1111 | Pupil’s Activities and Presentation |
| **Step 5**  **Development**  **(5 minutes)** | To conclude the lesson, the teacher revises the entire lesson and ask the key questions.  **SUMMARY**  To convert an expression in base two notation to base ten notation, just do the arithmetic. | The learners listen, ask and answer questions.  **KEY QUESTIONS**  Lets each of the pupils convert the following base 10 to base 2 –  1. 15  2. 26 | Lesson Evaluation and Conclusion |

***Reference materials – New Method Mathematics Book***

***Instructional Materials***

******