**LESSON DEVELOPMENT ONE**

**MINERAL RESOURCES**

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| **STAGE/TIME** | **TEACHER’S ACTIVITIES** | **LEARNER'S ACTIVITIES – MIND/HANDS ON** | **LEARNING POINTS** |
| **Step 1****Introduction** **(5 minutes)** | Brings sample of the products of mineral resources - Kerosene, Petroleum, Engine Oil, Polythene bags, Plate, Spoon, Vaseline, Jewellery, etc.Lets pupils identify and state their uses. | Pupils identify and state the uses of sample of mineral products.  | 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 – charts of mineral resources and their byproducts.  | 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** **(10 minutes)** | Guides pupils to identify mineral resources and their byproducts.  | 1. Crude oil - Petroleum, kerosene, engine oil, etc.2. Copper, gold, silver, diamond – ornaments, electric cables, jewellery, and tools.3. Tin – tin containers and foils.4. Clay – bricks and pottery.5. Iron ore – steel and cars.6. Lead – pipes and pencils.7. Sulphur – matches, gun – power, ointments and to make strong and hard rubber.8. Aluminum – cooking utensils, electric cables, and aircraft.9. Natural gas – gas  | Mineral resources and their byproducts  |
| **Step 4****Development** **(10 minutes)**  | Leads and guides pupils to group the mineral resources into solid, liquid and gas.Lets the pupils know that if a mineral resource is solid (hard), the byproduct will be solid.  | Solid minerals – copper, tin, clay, iron ore, lead, sulphur, aluminum, etc.Liquid minerals – crude oilGas – natural gas | Types of minerals  |
| **Step 5****Conclusion and Evaluation** **(10 minutes)**To conclude the lesson, the teacher revises the entire lesson and links it to the next lesson, and asks the key questions**.**  | Minerals are resources and wealth of nation. They are found in the soil. Examples are crude oil, tin, aluminum, natural gas, etc.They exist in solid, liquid and gas form.They are used for making many thing like, cutlass, hoe, knife, plate, machine, etcAsks the key questions – 1. What is mineral resources?2. State the three form of minerals.3. What are the source of mineral resources? | Pupils listen, ask and answer questions.  | Conclusion, Evaluation and a link to the next lesson – importance of mineral resources.  |