Lesson plan/note for week 4 ending, 3rd February, 2023

|  |  |
| --- | --- |
| Term | 2nd term |
| Week | Week 5 |
| Date | 30th January/ 2nd February, 2023 |
| Class | JSS 3 |
| Subject | Basic Science |
| Topic | Sound Energy |
| Sub-topic | Characteristics of sound |
| Period | 8th/9th |
| Time | 1:20-2:00pm/2:00-2:30 pm |
| Duration | 40 minutes/30 minutes |
| Number in class | Thirteen |
| Average age | 13 years |
| Sex | Mixed |
| Specific Objectives | By the end of the lesson, the students should be able to:  1.Mention objects that can produce sound  2.Explain reflection of sound.  3.Outline the characteristics of sound  4.Explain how our ears hear. |
| Rationale | To enable students understand production and reflection of sound as well as the characteristics of sound. |
| Previous Knowledge | Students are familiar with sound. |
| Instructional resources | Students’ desk and a stick |
| Reference Materials | i.Excellence in Basic Science and Technology for JSS 3 by Olushola Felix Bello et al.  ii.Google |

Lesson Development

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Teacher’s Activities | Students’ Activities | Learning Points |
| Introduction | Teacher asks students what happen when they hit a stick on a desk. | Students respond to teacher | To arouse students’' interest |
| Step I | Teacher explains sound and guides students to mention objects that can produce sound. | Students participate in class discussion | To encourage active participation in the classroom |
| Step II | Teacher explains and demonstrates how sound is reflected | Students listen, observe and ask questions where necessary | To keep students focus on the lesson |
| Step III | Teacher outlines and explains characteristics of sound. | Students pay attention | To keep students focus on the lesson |
| Step IV | Teacher asks students to mention some parts of the ear as the teacher explains how our ears hear. | Students respond to teacher’s question | To encourage critical thinking |
| Board Summary | Sound Energy  Sound is a vibration and a form of energy that travels in waves.  Production of Sound  When objects vibrate, they produce sound. Empty bottles, cans, whistle etc. can all be made to produce sound by making them to vibrate.  Transmission of Sound  Sound can travel through solids, liquids and air, but cannot travel in a vacuum.  Sound travel faster through liquids and solids than through air, because the particles of solids and liquids are closer together than air particles are.  Examples of materials that can transmit sound: air, water, glass, stone, steel etc.  Reflection of Sound  Sound like light bounces back when it comes in contact with a barrier. The bouncing back of sound wave is called reflection. Reflected sound waves are called echoes. That is, the bouncing back of sound wave is called echo.  Characteristics of Sound  1.Loudness  2.Amplitude  3.Pitch  4.Frequency  5.Wavelength  >Loudness: This is the size of vibration.  >Amplitude: It is the strength of sound wave.  >Pitch: This is the rate of vibration (high or low)  >Frequency: It is the number of sound vibration per second.  >Wavelength: This is the distance between the same point on consecutive cycles of a wave of sound.  Hearing  Our ears hear by collecting the sound waves and channeling them down the ear canal to the ear drum. The vibrations are passed via the small ear bones (ossicles) to the cochlea, where they ate changed into nerve impulses and carried by the brain. The brain interprets the signals as sound. | Students copy the note written by the teacher on the board | For reference purpose to the students. |
| Evaluation | Teacher asks students the following questions:  1.Mention three objects that can produce sound  2.Explain reflection of sound.  3.Outline four characteristics of sound.  4.Explain how our ears hear. | Students answer teacher's questions. | To ascertain students’ understanding of the lesson |
| Conclusion | Teacher assesses students' books and make corrections where necessary. | Students take correction. | To ensure a better understanding of the lesson. |
| Assignment | Differentiate between echoes and resonance of sound. | Students write down the assignment in their exercise books. | To engage students while at home. |