# Lesson plan/note for week 2 ending, 20th January, 2023.

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| Term | 2nd term |
| Week | Week 2 |
| Date | 17th/19th January, 2023 |
| Class | JSS 1 |
| Subject | Basic Science |
| Topic | Use and Misuse of Energy |
| Sub-topic | Advantages and Disadvantages of Renewable and Non- renewable Energy Sources |
| Period | 3rd/4th |
| Time | 9:30-10:10am/10:30-11:10am. |
| Duration | 40 minutes each |
| Number in class | Seventeen |
| Average age | 11 years |
| Sex | Mixed |
| Specific Objective | By the end of the lesson, the students should be able to:  1.State the advantages of renewable energy sources.  2.State the disadvantages of renewable energy sources.  3.State advantages of non- renewable energy  4.State disadvantages of non- renewable energy.  5. Explain the implications of misuse of non- renewable energy. |
| Rationale | To enable students understand the advantages and disadvantages of renewable and non- renewable energy as well as the implications of misusing non- renewable energy |
| Previous Knowledge | Students have learnt meaning and examples of renewable and non- renewable energy. |
| Instructional Resource | Pictures from reference text books. |
| Reference Materials | i.Fundamentals of Basic Science for JSS1 by Adebesin. O. Michael  ii.Comprehensive Basic Science for JSS 1 by O.J Ehindero et al. |

**LESSON DEVELOPMENT**

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| Steps | Teacher’s Activities | Students' Activities | Lesson point |
| Introduction | Teacher asks students to mention examples of renewable and non- renewable energy. | Students mention examples of renewable and non- renewable energy | To arouse the interest of students |
| Step I | Teacher states and explains the advantages of renewable energy | Students pay attention to teacher | To keep them focus on the lesson |
| Step II | Teacher guides students to state the disadvantages of renewable energy | Students respond to teacher | To encourage critical thinking |
| Step III | Teacher states the advantages of non- renewable energy | Students listen and ask questions where necessary | To keep them focus on the lesson. |
| Step IV | Teacher guides students to state the disadvantages of non- renewable energy | Students respond to teacher | To encourage critical thinking |
| Step V | Teacher explains the implications of misuse of non- renewable energy | Students listen and ask questions where necessary | To keep students focus on the lesson |
| Board Summary | Advantages of Renewable Energy Sources  1.It is available in abundant quantity and free to consume.  2.Low cost electricity can be produced by these sources.  3.Low carbon or no carbon emission, therefore, they are considered as environmental friendly sources.  Disadvantages if Renewable Energy Sources  1.It is not easy to set up a plant as the initial cost is quite high.  2.Solar energy can be used only at day time, except if stored.  3.Wind energy needs strong winds, therefore require suitable places to fix the wind turbines and operate them.  4.Dam construction for hydroelectric power is expensive, affect natural flow of river and wildlife.  Advantages of Non-Renewable Energy Sources  1.It is easy to use and available everywhere  2.Small amount of nuclear fuel can produce large amount of electricity.  Disadvantages of Non-Renewable Energy Sources  1.It causes serious environmental degradation  2.It releases toxic gases in the air when burned, which is the major cause for global warming.  3.Exposure to nuclear fuels and its wastes are hazardous for human health.  Implications of Misuse of Energy  1.Misuse of Non-Renewable energy will lead to using them up and they will no longer be available for the future generation  2.Misuse of non-renewable energy is contributing to environmental pollution and climate change. | Students copy the note in their note book | To serve as a reference point to students. |
| Evaluation | Teacher asks students the following questions:  1.State three advantages of renewable energy.  2.State two disadvantages of renewable energy.  3.State two advantages of non-renewable energy.  4.State three disadvantages of non-renewable energy  5.Explain two implications of misuse of non-renewable energy. | Students respond to teacher’s questions. | To ascertain students’ understanding of the lesson. |
| Conclusion | Teacher assesses students and make corrections where necessary | Students take correction | For a better understanding. |
| Assignment | State three reasons for careful use of coal or petroleum products. | Students write down the assignment | To engage students at home. |