WEEK 1: GEOMETRY AND MENSURATION

- Volume of solids
- Cuboids and cubes
- Capacity of containers.

QUESTIONS.

1. A box has a square base of side 9cm. Calculate the volume of the box if it is 10cm deep.
2. Calculate the volume of a rectangular box which measures 30cm X 15cm X 10cm.
3. A wooden beam has a rectangular cross face, 24cm by 15cm and 8m long.
   a. Calculate the volume of the beam. Express your answer in (i) cm³ (ii) m³
   b. If the wood has a mass of 700kg per m³, find the mass of the beam.
4. A school’s water tank measures 4m by 3m by 2m.
   a. How many litres does it contain when full?
   b. If the school uses about 5000 litres of water a day, approximately how many days will a full tank last?

WEEK 2: TYPES OF ANGLES

- Vertically opposite angle
- Alternate angle
- Straight angle and
- Corresponding angle.

QUESTIONS.

1. The sum of angles at a point is ______________?

Find the sizes of the lettered angles in the following figure.

a. Find the measures of angles m, n, l, j, k, p, q. (Diagram is not provided but can be described or visualized.
Due to the sudden pronouncement regarding school closures in Nigeria it is most important that you spend quality time at home on the challenges we have set you. In total the time you should profitably spend upon them amounts to approximately 10 to 12 hours over a two week period to fit in with your family circumstances and arrangements. **Do as much as you can.** If time allows you should also read as much as possible and include newspapers and magazines in your selection. Speak English often to discuss issues with your parents, tutors, siblings and/or friends. There are optional challenges in reading and writing for those of you who find more time and inclination to devote to your studies.

Read these notes with an adult if possible to make sure you understand what to do. You are allowed help with the tasks as long as the “helper” makes a note that the work was completed “with support”. They should also specify the level of support: little, some, considerable etc.

The work you do will be of great benefit to your learning and also to your teachers who will build upon the progress you make and differentiate future work to best meet your needs.

The tasks set should be given your fullest attention as they will be assessed and included in determining not only the level you are working at but what your next targets should be in order to grow success.

The self-study pack is designed in such a way that you can respond to the challenges on many levels and you may find that on some you take a straightforward basic approach whereas on others you are able to give greater detail and develop your ideas more fully. Don’t worry if you find anything difficult we need to know what you can’t do in order to accelerate your progress! Discovering only what you CAN do is a waste of your time. You should WELCOME feedback which moves you forward.

The following suggestions are examples of success criteria. Follow them closely to achieve quality answers.

**Reading Comprehension**

- Read questions very carefully and make sure you understand exactly what is required before you begin. If in doubt, ASK.
- You should answer all questions using complete sentences.
- When answering more complex questions on texts you should attempt to first make your POINT then, if possible, give an EXAMPLE from the text to illustrate your point and finally EXPLAIN the relevance of the quotation you chose.

**Writing Skills**

- Make sure all your written work is completed with an audience (reader) and purpose in mind. This is a measure of how effective your use of language is. Choose your words and tone well. Know what success looks like before you begin a task.
- Use the appropriate vocabulary to effectively describe, persuade, explain etc. according to the task.
- Develop your ideas fully before rushing on.
- Use precise language. Make effective vocabulary choices... don’t use “said” if “muttered” or “roared” is more appropriate.
- Use paragraphs effectively to group sentences.
- Write neatly using one size and style. Join your letters correctly if you are able to.
JSS Challenge 1) Introduction: To write really well we need a variety of sentence patterns including compound sentences. Before reading a passage which illustrates how brilliantly the author Ernest Hemmingway uses compound sentences to create an effect you should revise your own skills! Join the following pairs of sentences together with a conjunction. (Conjunctions, you remember, are “joining words”.) and but or yet either/or (a choice) neither/nor (negative choice). Remember you do not have to repeat names or common details. Example: Suleiman went to the bank. Suleiman withdrew N25K. Suleiman went to the bank and withdrew N25K.

a) Imran took the bus into town. Imran visited the new shopping centre.

b) Kemi works hard. Lazy Emma got higher marks in the exam.

c) England did not do well in the World Cup. Spain did not do well in the World Cup.

d) You must try harder. You will not succeed.

Sometimes simple and compound sentences are perfect for describing fast-moving situations as in the following passage from the novel A Farewell to Arms by Ernest Hemmingway. To get the highest grades and grow success you need to be able to explain not only what an author writes but HOW he uses language effectively, how he creates the desired effect.

Then there was a flash, and a roar that started white and went red and on and on in a rushing wind. In the jolt of my head I heard somebody crying. I thought somebody was screaming. I tried to move but I could not move. My legs felt warm and wet and my shoes were wet and warm inside. I knew that I was hit and leaned over and put my hand on my knee. My knee wasn’t there. My hand went in and my knee was down on my shin. I wiped my hand on my shirt and I looked at my leg and was very afraid.

a) Which sentence do you find most powerful? (Clue: notice how Hemmingway uses different sentence lengths to create an impact)

b) What do you think the first sentence of the passage is describing?

c) How did Hemmingway first know he had been hit?

d) Where in the passage does Hemmingway repeat words but uses them in a different order for effect?

e) What have you learned from working on this brilliant passage?

Now it’s your turn to practice this technique! If Hemmingway can do it so can you. Before you begin make absolutely sure you understand what success looks like. You are allowed to redraft your attempt (always a great idea- it’s what great writers do!) but keep each version you have written to show how you have improved, learned and grown success! (If you only use simple and compound sentences your writing gets repetitive but in this Hemmingway example their use is very effective.)

f) Imagine you are walking along a river, when you accidentally slip and fall in. You are desperately trying to stay afloat and reach the bank. You have also injured yourself badly in the fall. Use a series of simple and compound sentences to describe what is happening.

How gory are your injuries? Give details.

JSS Challenge 2) Introduction: As we have seen, simple and compound sentences are very useful for clarity but can become repetitive if used all the time. To express everything you want to say you will also need to use complex sentences.
You can add information to a simple sentence by using **when**, **if** and **because**. They are conjunctions (joining words) which help us to say how, when or why something has happened, or will happen.

Look at this simple sentence:

I am tired today.

Could you give some more information about why you are tired?

I am tired today **because** I stayed up late last night.

Can you add some extra information to these sentences to make them more interesting?

a) It was funny **when**...

b) I can’t wait until lunch time **because**...

c) I can go out this weekend **if**...

You do not always have to add the extra information to the end of the sentence. It can also go at the start or the middle of the sentence.

They could not stop talking **when** they finally met.

**When** they finally met they could not stop talking.

They couldn’t, **when** they finally met, stop talking.

**Style Note:** Do not always start your sentences with a pronoun (I, he, she, they, it) or a name (Mr Jones, Stella, David). Starting your sentences in different ways will stop your audience (reader) from getting bored.

Now you try it:

d) You are writing an email about yourself to an exchange partner from another country. Write at least six sentences telling your exchange partner about your life, your friends and family, and how you are looking forward to your partner’s visit. Use because, when and if. Do not begin sentences with “I”.

Here are a few ideas to help you.

Because I love sport, I ...

When you come and stay, we can ...

If you want to get in touch, just ...

**JSS Home Study:** Writing for different purposes and audiences: Select any 4 from choices (attempt what you find the most challenging, NOT the least (We are looking for ways to move forward):

1) Write a description of your favourite place.

2) Write a letter to Grandma thanking her for a birthday present. She was unable to attend your party so include details of what she missed. Remember to refer to members of your family when giving her your news and include questions for her to reply to.
3) Create a cartoon character, and draw a short comic strip which illustrates his/her character.

4) You have been asked to write a report of a school trip (real or imagined) for the TAICO Year Group magazine. Give details of where, what, when, who etc. Make sure it is entertaining and interesting for your young readers.

5) Write a short story which illustrates the proverb “A bird in the hand is worth two in the bush”. It should not be literally about birds!

6) Write a persuasive speech highlighting why your school friends should vote for you to represent them on the School Council.

7) Write a review of your favourite movie including brief details of the genre (type of film e.g. “Thriller”, “Romantic Comedy” etc.), plot and actors. Explain why it’s so good and why you think others should watch it.

8) Write instructions for someone to prepare a simple meal.

9) Write a summary of a T.V. programme you have watched and enjoyed.

JSS Writing Extension Challenge (Optional)

A) Write a diary entry for each of any ten days selected from your School Holidays. Each day should include at least five sentences. The tone for this challenge should be a mix of semi-informal and informal. Personalise your writing by expressing your thoughts and reflections about people and events as if you are thinking out loud.

B) Write an imaginary day’s diary entry for a famous person alive or dead. The tone should be formal; as if the writing was published to give an insight into the important subject’s character and their influence upon events.

For example: Martin Luther King, Nelson Mandela or Mother Theresa. You may alternatively choose a current political, entertainment or sporting figure of importance. Maybe the Nigerian football captain or a Nollywood star.

Sometimes writers create diaries of fictional characters (Adrian Mole for example) for comic effect. Others write satirical diaries of political figures to poke fun at them, often cruelly! In the UK for example Private Eye magazine has an “amusing” regular feature of a diary written by the imaginary Head Master of a posh Public School (Private!). The Head is, of course, really David Cameron the wealthy UK Prime Minister. The P.M. is often accused by his rivals of being upper class and elitist, out of touch with ordinary folk so the Headmaster character can reflect this beautifully. Satirical magazines make fun of our leaders who ever they are and whichever Political Party they represent.

Why not write a satirical diary of your own! Maybe your parents could suggest your “target”!

BASIC TECHNOLOGY

JSS2 TOPIC 1: BORING TOOLS

BEHAVIOURAL OBJ: At the end of the lesson, the students should be able to:

(i) define boring tools

(ii) give and explain examples of boring tools
ENTRY BEHAVIOUR: The students have seen holes bored on wooden materials.

STUDENTS’ NOTES

BORING TOOLS

Boring tools are tools used for making holes in wood. Examples of boring tools are:

(1) Brace      (2) Bits      (3) Drills      (4) Bradawls
(5) Gimlet.

(1) Brace – It is used mainly for holding and turning bits of different suitable sizes when boring holes.

There are three types of brace:

(i) Plain Brace    (ii) Ratchet Brace    (iii) Wheel Brace

The **plain brace** is for full swing, that is, it moves in one direction.

The **ratchet brace** is for half swing, that is, it moves in two directions.

The **wheel brace**

(2) Bits – A bit is used for boring holes in soft and hard woods. It has a threaded centre point which draws the bit into the wood.

(3) Drills – A twist drill is similar to a metal drill. Drills are bigger than bits and can be used in boring soft or hard wood without fear of splitting the timber.

(4) Bradawl – It is used in making small holes in wood before using screw or nail. It is also used for marking the position of the hole that is to be drilled.

(5) Gimlet – It performs the same function as a bradawl. In addition, a gimlet is used in attaching door lock to a door. It is particularly useful when the wood is hard.

ASSIGNMENT

(1) Represent all the boring tools you know diagrammatically and state the use of each.

(2) State the difference between plain and ratchet brace.
JSS2 TOPIC 2: DRIVING TOOLS

SUBJECT: BASIC TECHNOLOGY

BEHAVIOURAL OBJ: At the end of the lesson, the students should be able to:

(i) define driving tools
(ii) give examples of driving tools
(iii) represent the examples listed diagrammatically
(iv) draw a hammer and fully label the parts.

ENTRY BEHAVIOUR: The students have seen screwdrivers used before.

STUDENTS’ NOTES

**DRIVING TOOLS**

*Driving tools are tools that are used to drive fasteners like nails, screws, bolts, pins and studs; in order to join two pieces of materials like wood or steel together.*

Examples of driving tools are:

(1) Hammers    (2) Mallets    (3) Punches

(4) Screwdrivers    (5) Spanners.

(1) **Hammers** – They are categorized according to their weights. The different types are:

(i) Claw Hammer

(ii) Warrington hammer / Cross Peen Hammer / Joiner’s Hammer

(iii) Engineer’s Hammer / Ball Peen Hammer / Mechanist’s Hammer

(iv) Sledge Hammer

(v) Club Hammer

(vi) Blocking Head Hammer

(vii) Straight Peen Hammer

(viii) Planishing Head Hammer / Mass Hammer
(i) **Claw Hammer** – It is designed for wood work. It has a claw at the other end of the head for extracting nails. The claw hammer is used when it comes to driving in large nails and for heavier joinery work.

(ii) **Warrington hammer / Cross Peen Hammer / Joiner’s Hammer** – It is a light hammer with a cross peen; that is why it is being called a Cross Peen hammer. It is very suitable for general use – it is used for cabinet work and can be used for pressing small inlays and veneers into position when glueing. It is also used for riveting in awkward places and the flat end for striking.

(iii) **Engineer’s Hammer / Ball Peen Hammer / Mechanist’s Hammer** – It is designed mainly for metal work. It is used to drive punches and cold chisels. It is used to set rivets and also shape metals.

(iv) **Sledge Hammer** – It is an heavy hammer that is used for breaking hard objects like rocks. It is also used for driving in fence post.

(v) **Club Hammer** – A club hammer is a small sledge hammer. It is used for light demolition work; driving steel chisels and masonry nails.

(vi) **Blocking Head Hammer** – It is used by sheet metal workers for shaping sheet metal.

(vii) **Straight Peen Hammer** – It is used for riveting in vee grooves.

(viii) **Planishing Head Hammer / Mass Hammer** –

(ix) **Steel Hammer** – These are special types of hammer for strong jobs.

(x) **Pin Hammer** – A pin hammer is a very light weight hammer which is used for very fine work. Pin hammers are commonly used for knocking in very small nails, panel pins and tacks.

(xi) **Soft Hammer** – This is a hammer which has very hard, colourfast and wear resistant polyamide.

(2) **Mallet / Joiner’s Mallet** – A mallet is a wooden / rubber headed striking tool, that is, it can be made of wood or plastic. It is used to chisel groove for wood joint, that is, it is mainly
used for striking the wooden handles of chisels to prevent splitting. A mallet is a special type of hammer called soft hammer. It is also used to tap wood joints together where a metal-faced hammer would cause damage or bruising.

(3) **Punches** – Punches are also called nail setters. Smaller sizes are mostly used for cabinet work. A punch is also used with hammer for driving nails below the surface of the wood. A small hole that is made may be filled with wood-filler.

(4) **Screwdrivers** – A screwdriver is a simple tool used mainly to turn wood screws either to drive them in or bring them out.

The five types of screwdrivers are:

(i) **Plain /Flat Screwdriver**

(ii) **Star / Philip’s Screwdriver**

(iii) **Ratc het Screwdriver**

(iv) **Offset Screwdriver**

(v) **Allen Key / Allen Screwdriver**

(i) **Plain /Flat Screwdriver**

(ii) **Star / Philip’s Screwdriver**

(iii) **Ratc het Screwdriver** – It allows the handle to turn without turning the blade. It is not suitable for heavy very heavy jobs.

(iv) **Offset Screwdriver** – It is used when screws are in an awkward position

(v) **Allen Key / Allen Screwdriver** – It is used for screws which have a hexagonal or square slotted hole in their heads.

(5) **Spanner** – It is used to tighten and loosen bolts and nuts.

ASSIGNMENT

Draw the diagrams of:

(i) Mallet,
(ii) Punch,
(iii) Offset screwdriver, and (iv) Allen key.

BASIC SCIENCE.

CLASS: J.S TWO

1st WEEK

TOPIC: FAMILY HEALTH (Disease)

1. (a) Explain any five (5) Methods of preventing diseases
   (b) Write down five (5) Consequences of diseases on a family.

2. What are disease vectors?
   (b) Give any four (4) examples of vectors
   (c) State any five (5) causes of disease
   (d) What do you understand by the word called “Disease”?

2nd WEEK

TOPIC: ENVIRONMENTAL POLLUTION (WATER & AIR POLLUTION)

1. (a) Define the following
   I. Pollution
   ii. Environmental pollution
   iii. Water pollution
   IV. Air Pollution
   v. Pollutant
   (b) State the differences between pollution and pollutant

2. (a) State any four (4) causes of both water and air pollution
   (b) Give any three (3) examples to both air and water pollutant

3. State the control measures to air & water pollution.

JSS2 (FRENCH)

A. Read the following passage and answer all the questions that follow
QUESTIONS

1. Qui adore la natation?
   ........................................................................................................
2. Qui veut devenir médecin?
   ........................................................................................................
3. Pierre a combien de frères?
   ........................................................................................................
4. Qui joue au rugby?
   ........................................................................................................
5. À qui Cecil envoie-t-il des e-mails?
   ........................................................................................................
6. Où habitent les parents de Cecil?
   ........................................................................................................
7. Qu’est-ce qu’il a?
   ........................................................................................................
8. Est-ce que ses parents habitent avec lui?
   ........................................................................................................
9. Qu’est-ce qu’il fait le weekend?
   ........................................................................................................
10. Cecil a quel âge?
    ........................................................................................................

B. COMPOSITION

In ten short, correct and complete sentences write a composition in French on:

Mon Ami(e) Préféré(e)

You can use some of these points

- Comment s’appelle-t-il/elle ?
- D’où vient il/elle?
- Il/Elle a quel âge ?
- Comment s’appellent ses parents ?
- Est-il/elle grand(e) ou petit(e) ?
- Est-il/elle de teint clair ou noir ?
- Quel est son plat préféré ?
- Est-il/elle gentil/gentille ?
- Pourquoi aimez-vous votre ami(e) ?
WEEK 1 & 2 AGRIC ASSIGNMENT: for JSS 2

1. What is soil?
2. State FIVE importance of soil in agriculture
3. List FOUR components of soil and give their percentage composition by volume.
4. State FIVE properties each of the following types of soil
   (i) Sandy soil (ii) Clayey soil (iii) Loamy soil
5. Which of them do you think is the best soil for agriculture? Give 2 reasons.
6. How is soil formed?
7. Define weathering?
8. List 3 types of weathering
9. Differentiate between soil texture and soil structure
10. What is soil pH?

SOCIAL STUDIES JSS 2.

1. A. Define social group
   B. Mention types of social groups and their characteristics.
   C. Define group behavior.
2. A. Define marriage.
   B. Explain the major four types of marriage
   C. Some conditions should be met before an individual decides to get married. Mention some of the conditions.
   D. What are the advantages of living together.
BUSINESS STUDIES

CLASS JSS 2

TOPIC – BUSINESS ORGANIZATION IN NIGERIA

1. (a) What is partnership?
   (b) Explain the differences between an active partner and a sleeping partner
   (c) Explain three sources of capital for a partnership business.
   (d) State five advantages and disadvantages of partnership.

2. (a) what is sole trader
   (b) Explain four sources of capital for a sole trader
   (c) State five advantages and disadvantages of sole trader

FINE ART: JSS TWO

TOPIC: MUSEUM

Week 1. Meaning and functions of museum
Week 2. Perspective and Types of perspective

ASSIGNMENT

1. Mention two functions of museum
2. Explain two principles of perspective

SUBJECT: EDE YORUBA   ISE SISE LATI ILE WA.

CLASS: J.S.S 2.

Answer all these Questions.

1. Ko apeere okookan oruko Yoruba Yoruba:
   (i) Oruko abiso  (ii) Oruko Idile  (iii) Oruko Amutorunwa
   (iv) Oruko Abiku  (v) Oriki Oruko.

2. (a) Ko awon onka wonyi sile ni ede Yoruba. (Write the following numerals in Yoruba)
   (i) 52  (ii) 64  (iii) 97  (iv) 85  (v) 70

   (b) Ko awon onka wonyi sile ni nonba. (Express the following numerals in Numbers).