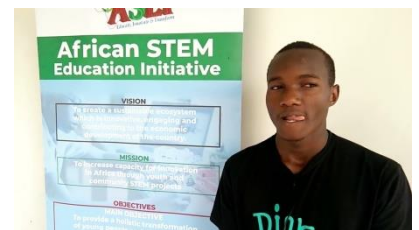


(1) African entrepreneurs and doctors are transforming the tech and medical fields on their continent. One of them is Jonathan Kenedy Sowah. He says wherever he goes, he is always looking for a problem to solve. His latest mission has been to help transform Ghana's approach to STEM—science, technology, engineering and mathematics. He believes he has found a solution. His company, InovTech STEM Center travels to schools across Ghana to teach students and show teachers the ins and outs of STEM through robotics education. It offers lessons in web design, app development and 3D modeling and printing, among other skills. Workshops empower students to flex their creative muscles and find ways to apply the lessons they learn in the classroom to the tech-field. "Computing should be like a basic language every child should learn" Sowah said. Currently, the founder of the center teaches students at the Teshie Anglican School in Ghana how to program a robot.

(2) Like many entrepreneurs, Sowah's path to success was a bit unconventional. The Ghanaian was born in the coastal township of Teshie close to the capital Accra, where he spent most days working at his grandmother's provisions store. He said he was interested in information technology (IT) from a young age, but he grew frustrated with how it was being taught in school. So, at the age of 13, Sowah decided to drop out and get a job at a local Internet café. Once he had free access to the Internet, he spent his spare time surfing the web to watch robotics tutorials.



(3) The self-taught computer scientist eventually went back to school and enrolled in Labone senior high school with dreams of becoming a neurosurgeon. But once again, Sowah says he was disappointed with a lack of emphasis on IT. This time, he took it upon himself to start a creative technology club called CREATECH. He credits his geography teacher for pushing him to turn CREATECH into the InovTech STEM center. Today, the company is reaching students and teachers throughout the country. It not only works closely with the Ghanaian Educational Service to buy robotics kits, but also collaborates with schools. However, Sowah says that many parts of the countryside still face many significant challenges to education. "You go to these places, and they surprisingly don't have computers," he said. "It is up to us to learn it as the privileged people and then go and teach the unprivileged ones," Sowah added.

(4) In addition to improving access to resources, Sowah is determined to help close the gender gap in STEM. According to UNICEF, girls are consistently underrepresented among top performers in STEM subjects and lack digital skills compared to their male peers. It has found out that only 7% of girls in Ghana have digital skills compared to 16% of boys. InovTech STEM center is concerned with the empowerment of young women throughout its "STEM for her" outreach program. It also launched a "Girl Power Workshop" last year. "We wanted to introduce girls to the exciting part of robotics for them to meet those people who are already in the industry doing robotic or tech-related careers, and counsel them, teach them and then guide them," Sowah said. He believes that the government can do more to support the advancement of STEM.

I-COMPREHENSION

(15POINTS)

A-Read the text carefully and answer these questions.

(3pts)

1-What does Jonathan Sowah aspire to do in Ghana ?.....

.....

2-What challenge does Jonathan face in the agrarian community ?.....

.....

3-What was Inov Tech center's reaction to the girls ' low performance in STEM subjects ?.....

.....

B-Are these statements TRUE or FALSE ? Justify your answers.

(4pts)

1-Sowah's center does not seek to teach students the peculiarities of STEM.....

.....

2-Sowah disapproved of the method of teaching computing in Teshie.....

.....

3-Sowah graduated from a computing university.....

.....

4-Helping Ghanians have access to STEM was Sowah's unique mission.....

.....

C-Complete these sentences with ideas from the passage.

(2pts)

1-Web design,app development and 3D modeling are instances.....Inov Tech

Stem center seeks to.....

2-Thanks to his geography teacher ,Sowah

.....

D-Find in the text words or expressions meaning the same as :

(4pts)

1-Show how strong someone is (parag1) :2-abnormal(parag2) :

3-Indigent(parag3) :4-uphold(parag4) :

E-What do the underlined words in the text refer to ?

(2pts)

1-The founder(parag1) :2-it(parag2):.....

3-You (parag3):.....4-we(parag4) :

II-LANGUAGE

(15POINTS)

A-Complete the following sentences with words from the list : (1pt)

an asset - stereotyped - a hindrance - mechanized

1-Women in the past were.....as maids and housewives.

2-Racial discrimination is claimed to beto development.

B-Put the words between brackets in the correct form. (3pts)

1-El Haouz was hit by a (disaster).....earthquake last September.

2-I got (panic).....when the room went dark.

3-(age).....youths are not allowed to drive cars.

C-Join the pairs of sentences using the bracketed linkers. (3pts)

1-It was thickly foggy.Therefore,several flights were called off. (owing to)
.....

2-Her uncle is a sculpturer.What's more ,he paints beautifully. (along with)
.....

3-The player was badly injured.Yet,he went on playing till the end of the game. (despite)
.....

D-Rewrite the following sentences starting with the words given. (3pts)

1-Right now someone is performing a piece of classical music.
A piece of classical music.....

2-I am sure the burglars had a fake key.The door was locked and nothing was broken.
The burglars must.....

3-Examinees need to proofread their exam papers before they hand them in to the teacher.
Exam papers.....before they

E-Choose the best answer. (3pts)

1-.....is the best way to stay in shape .

Work out - To work out - Working out

2-Dieticians always warn peopletoo much junk food to avoid obesity.

not eating - not to eat - not eat

3-Weshout.It's a deserted area .Nobody will hear us.

needn't to - needn't

F-What would you say in the following situations ? (2pts)

You are in a library.The music from a student's iPod is deafening and won't let you concentrate.

1-You make a complaint about that :.....

2-The student responds to your complaint :.....

III-WRITING

(10 POINTS)

Task 1 (4pts)

Write a paragraph about a place you would love to pay a visit to. Mention what sights (museums, historical monuments etc) you want to see there.

[illegible]

Task 2 (6pts)

Below is part of a letter a student wrote to a teenage magazine. Read the student's problem and write a reply giving her /him advice.

The boy sitting next to me in the English class never stops talking to me during the lesson. So, I can't pay attention. The teacher thinks I am the one who talks. What do you advise me to do ?

Dear student,

[illegible]

Best of luck

I-COMPREHENSION

A-Read the text carefully and answer these questions.

- 1-He aspires to help transform Ghana's approach to STEM-science,technology,engineering and mathematics.(parag1)
- 3-People in the agrarian community do not have computers.(parag3)
- 4-It launched programs to introduce girls to the exciting part of robotics,mentoring ,teaching and then guiding them.(parag4)

B-Are these statements TRUE or FALSE ?Justify your answers.

- 1-FALSE."His company travels.....to teach students and teachers the ins and outs of STEM"(parag1)
- 2-TRUE."he grew frustrated with how IT was taught in school."
- 3-FALSE. "The self-taught computer scientist."(parag3)
- 4-FALSE. "In addition to improving accessthe gender gap in STEM(parag4)

C-Complete these sentences with ideas from the passage.

- 1-Web design,app development and 3D modeling are instances of skills Inov Tech Stem center seeks to teach Ghanaian students. (parag1)
- 2-Thanks to his geography teacher ,Sowah turned CREATECH into the InovTech center.(parag3)

D-Find in the text words or expressions meaning the same as :

- | | |
|--|------------------------------------|
| 1-show how strong someone is(parag1) :flex their muscles | 2-abnormal(parag2) :unconventional |
| 3-indigent(parag3) :unprivileged | 4-uphold(parag4) :support |

E-What do the underlined words in the text refer to ?

- | | |
|-------------------------------|-----------------------------|
| 1-the founder :Jonathan Sowah | 2-it:Information Technology |
| 3-you: the reader | 4-We :Sowah and his center |

II-LANGUAGE

A-Complete the following sentences with words from the list :

- 1-Women in the past were **stereotyped** as maids and housewives.
- 2-Racial discrimination is claimed to be **a hindrance** to development.

B-Put the words between brackets in the correct form.

- 1-El Haouz was hit by **a disastrous** earthquake last September.
- 2-I got **panicked / panicky** when the room went dark.
- 3-**Underage** youths are not allowed to drive cars.

C-Join the pairs of sentences using the bracketed linkers.

1-Several flights were called off owing to the thick fog./.....owing to the fact that it was thickly foggy./.....owing to the fog being thick.

2-Along with being a sculpturer,her uncle paints beatifully.

3-Despite being badly injured/Despite his bad injury/Despite the fact that he was badly injured,the player went on playing till the end of the game.

D-Rewrite the following sentences starting with the words given.

1-A piece of classical music is being performed right now.

2-The burglars must have had a fake key.

3-Exam papers need to be proofread by examinees before they hand them in to the teacher.

E-Circle the best answer.

1- working out is the best way to stay in shape .

2-Dieticians always warn people not to eat too much junk food to avoid obesity.

3-We needn't shout.It's a deserted area .Nobody will hear us.

F-What would you say in the following situations ?