END OF YEAR EXAMINATIONS

S.1 PHYSICS

TIME: $1\frac{3}{4}$ hours

NAME:……………………….……………………………....STREAM………….

INSTRUCTIONS

- Answer all questions in the question paper provided.
- Silent, non-programmable calculators may be used.

QUESTION ONE

Our investigation into personal thermometers has found you can't always trust the number on the screen. Being able to identify when you or your child is running a fever is important. A fever is defined as an elevated body temperature of **38°C** or higher. *(Normal body temperature is generally 37°C).* Since there can be as little as **1°C** difference between a healthy temperature and a fever, getting an accurate reading is important. But how do you know that your thermometer is giving you an accurate temperature reading? **(10 marks)**

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QUESTION TWO

A nurse in a certain village health facility is using a faulty thermometer that reads **3 ^{O}C** at melting point of ice and **96 ^{O}C** at the boiling point of pure water. If the thermometer reads **37 ^{O}C** when placed its bulb is placed in contact with a child. By showing all your working help the to find out the true health status of the child. Does the child have fever? (Fever is temperature of **38 ^{O}C** or higher). **(5 marks**)

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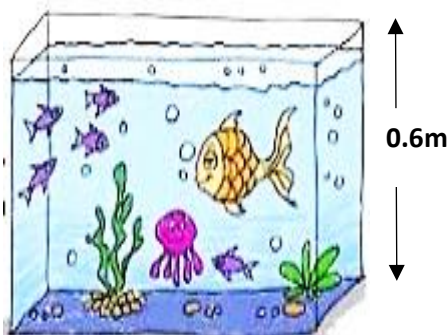## QUESTION THREE

Alvin has a prism-like water tank whose base area is **0.90 m^2** and height is **0.60 m**. He wants to buy guppy fish, and the pet store owner tells him to make sure their **density** in the tank isn't more than **5 fish per cubic meter**. He is confused on what to do about this. Write down how you will help him to find the maximum number of fish suitable for the tank? **(05 marks)**

0.6m

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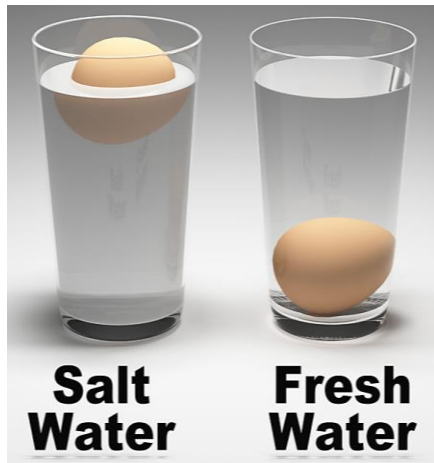……………………………………………………………………………………………
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QUESTION FOUR

A local magician placed two boiled eggs each in a beaker containing water as shown below. He has been collecting money from people claiming that he has magic powers. On investigating him you tasted the water and found one bowl having salty water. Do you think he has magic powers still or he is just using scientific tricks to get money for survival? Explain your answer. **(05 marks)**

Salt Water   Fresh Water

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QUESTION FIVE

Joseph First filled one bowl with **cold water**, then he just left them to settle for **5-10 minutes**. Then he added just a little **food colouring** gently on the surface of the liquid in the bowl. He observed that the colour of the water was changing very slowly. He wants to speed up the process and finish the work he is doing early enough unfortunately he doesn't know how to do so. Discuss the possible ways how you can help joseph speed up the above process. **(05 mks)**

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QUESTION SIX

A certain family stays near the murram road and a school. Everyday, the family receives dust raised by moving vehicles from the road and the bad smell from the school pit latrines. In the morning hours, the dust is not so much and the smell from the pit latrine is not so much either. But these conditions worsen around midday on hot sunny days. The family is disgusted by these conditions. They don't know the cause of these conditions. As a physics student write a message to this family explaining what causes the above conditions and possible ways of solving the above problem.   **(10 marks)**

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QUESTION SEVEN

You all have experienced a force in some way. Forces play a role in everything that we do. It may be kicking a ball, playing games and others. **BLUE** team and **RED** team are playing a tug of war. If each person in the blue team pulls the flag with a force of **200N** and each person in the red team pulls the flag with force of **100N**. by showing your working which team, do you think will win the game? And how many people should be added to the loosing team to match the strength of the winning team?   **(05 marks)**

BLUE TEAM   **RED TEAM**

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S.2
O Level
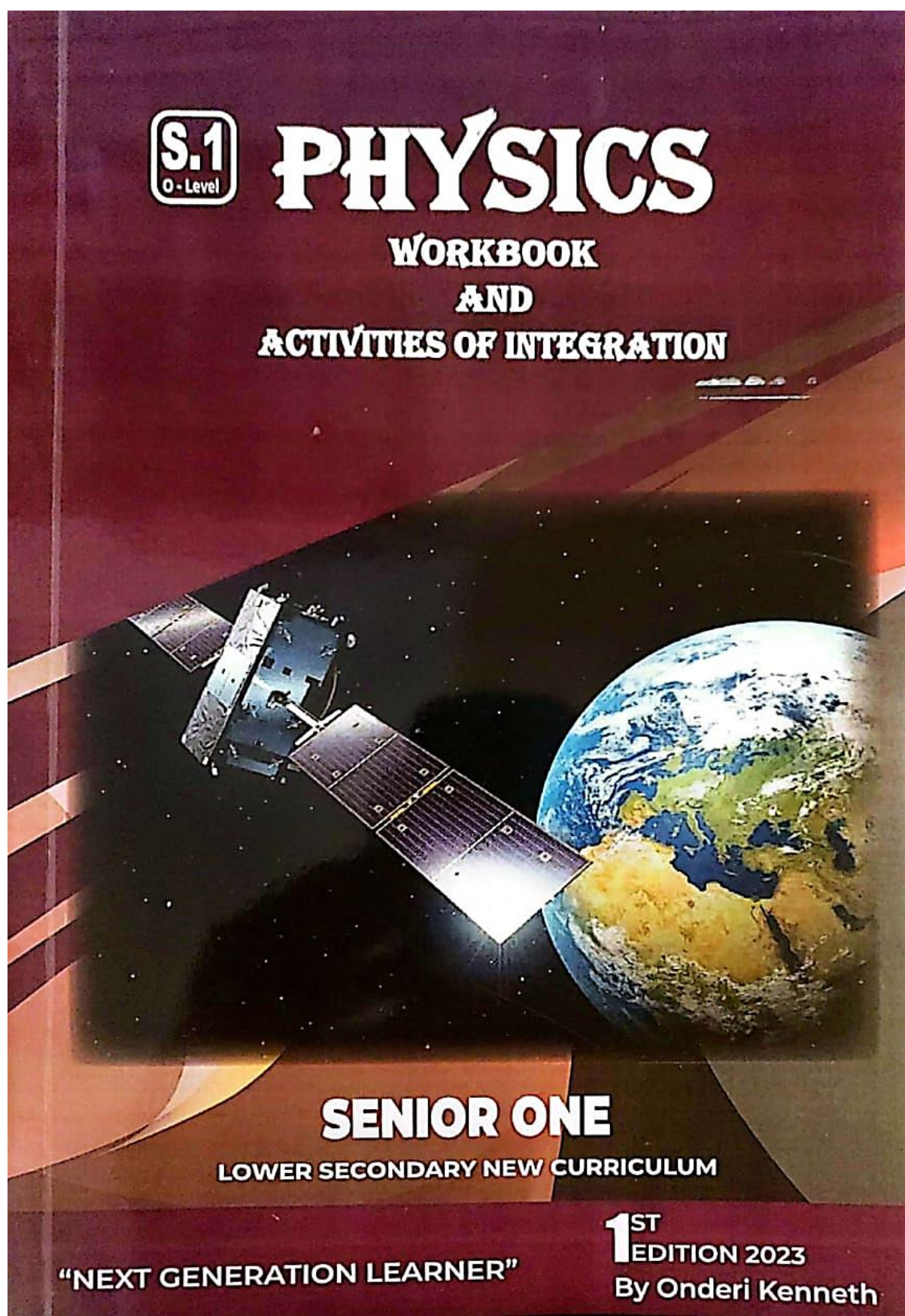
PHYSICS

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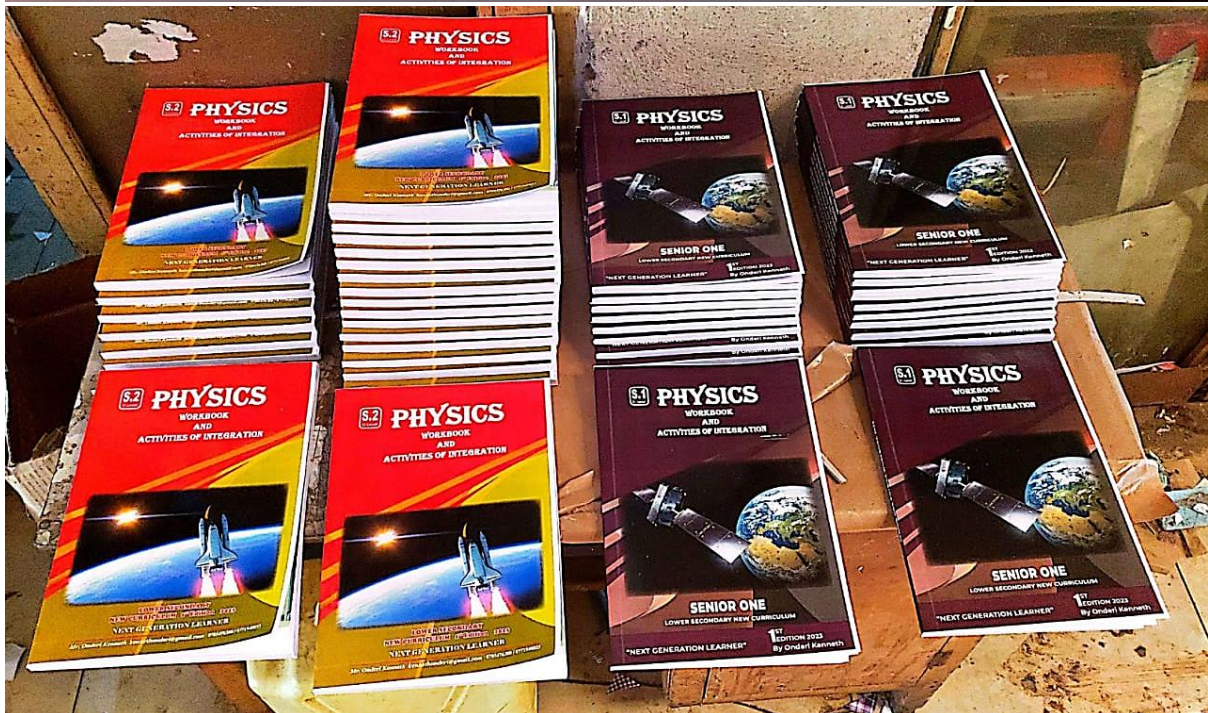## ACTIVITIES OF INTEGRATION
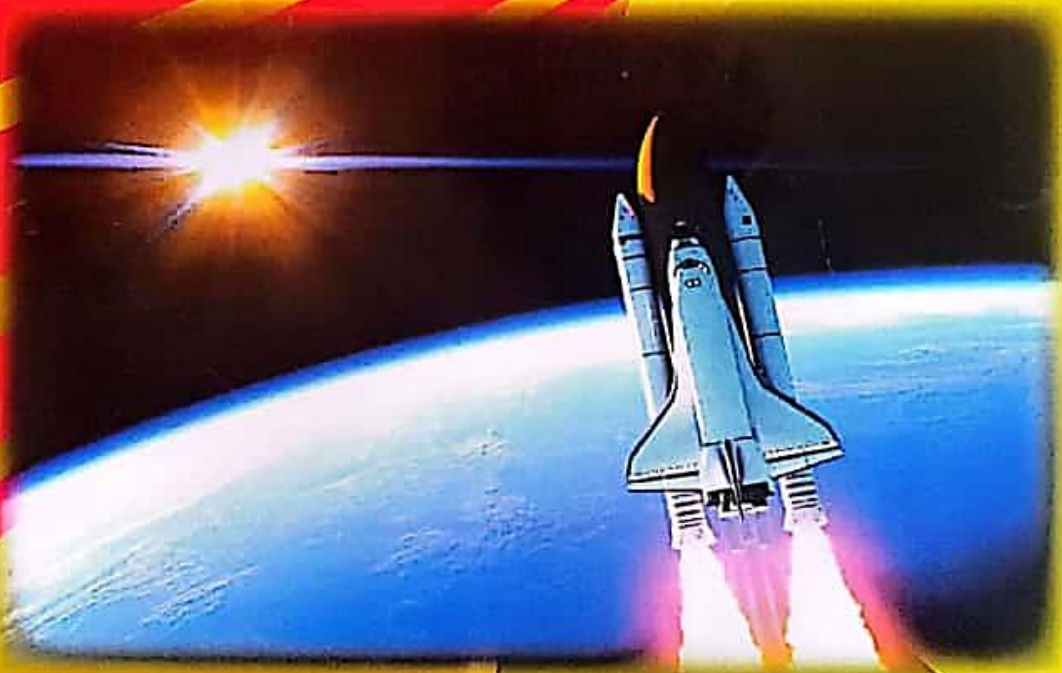
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NEXT GENERATION LEARNER

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S.1
O - Level

PHYSICS

WORKBOOK
AND
ACTIVITIES OF INTEGRATION

SENIOR ONE

LOWER SECONDARY NEW CURRICULUM

"NEXT GENERATION LEARNER"

1ST EDITION 2023

By Onderi Kenneth

Come January 2024 all workbooks (S.1, S.2, S.3 and S.4) will be available with possible solutions provided at a free cost to those who purchase more than 50 books

⚏ Positive criticism is well received to help improve our service delivery to the nation in terms of physics as a subject and how the books should be like in order to make the subject better.

⚏ My sincere apology for delay in production of book three as had earlier been anticipated.

⚏ Get in touch with the author @ 0705476300/ 0771940855.