

**SENIOR ONE PHYSICS HOLIDAY WORK.**

**INSTRUCTIONS.**

Use your classwork books for the holiday assignment.

Copy the work down and answer the questions given in your classwork books.

You can use the internet for research.

**THEME: MECHANICS AND PROPERTIES OF MATTER**

**TOPIC: WORK, ENERGY AND POWER**

**Competency:** Understand and use the relationship between energy, work done, force, and power in the operation of simple machines.

**Learning outcomes.**

- a) Know that the sun is our major source of energy, and the different forms of energy (k)
- b) Understand the positive and negative effects of solar energy(u)
- c) Know and use the relationship between work done, force, and distance moved, and time taken (k, s)
- d) Understand the meaning of machines and explain how simple machines simplify work (u, s)

**1. Investigating the concept of work**

The picture in the figure below was taken from a certain village before construction of a perimeter wall.



Basing on your clear analysis of the picture:

- (a) Is there any indicator that some work has been done.  
What's the reason behind your answer. (03scores)

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- (b) Briefly discuss any three scenarios where you or  
your friend performed work. (06 scores)

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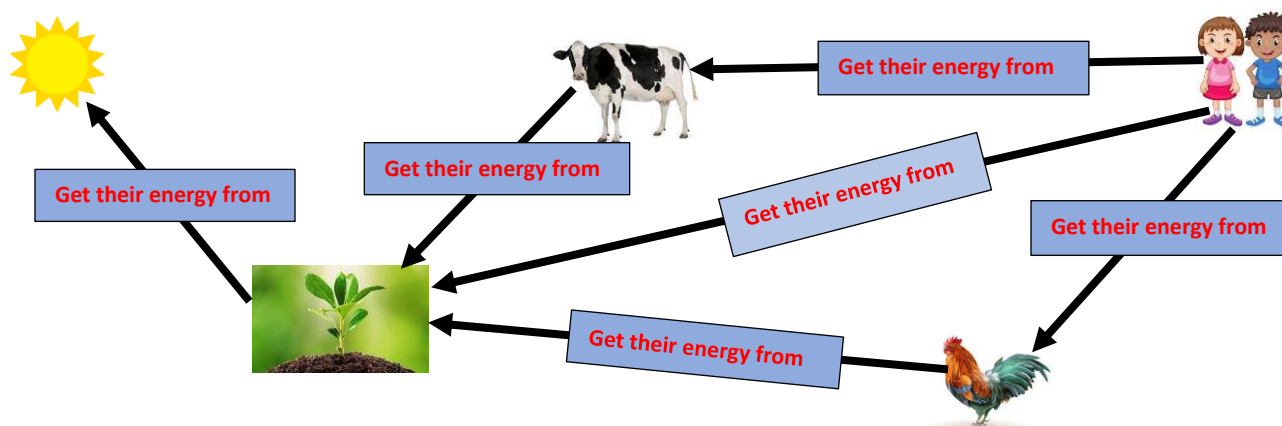
- (c) What were the indicators that showed that you or your friend performed work. (04 scores)

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(d) Which machine(s) would you have used to simplify the work. (02 scores)

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2. Study the diagram below and answer the questions that follow.



a) What is the major source of energy for all living things indicated in the figure above. (01 scores)

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b) What do plants use the energy from the sun for. (02 scores)

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c) Imagine the sun goes down for 7 days. Would life be possible!

i) If yes, explain how. (02 scores)

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ii) If no, explain why. (02 scores)

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d) Explain any five positive effects of solar energy and five negative effects of solar energy. (10 scores)

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e) Explain any other four sources of energy with the corresponding energy forms. (08 scores)

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**THE BEST WAY TO PREDICT YOUR FUTURE IS BY CREATING IT.**

**PROVERBS 18:21**

**WE WISH YOU A MERRY CHRISTMAS AND A PROSPEROUS NEW YEAR.**

**EXTEND YOUR HORIZON.**