

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER MAY 2017: MASTERS IN PRIMARY EDUCATION

COURSE NUMBER: PED610

COURSE NAME: SCIENCE TECHNOLOGY AND SOCIETY

TIME ALLOWED: 3 HOURS

- INSTRUCTIONS:
1. THIS PAPER HAS **FIVE** QUESTIONS.
 2. ANSWER ANY **FOUR** QUESTIONS.
 3. EACH QUESTION IS WORTH 25 MARKS
 4. DOCUMENTS REFERRED TO IN SOME OF THE QUESTIONS ARE ATTACHED. IF YOU DO NOT FIND THEM, ASK FOR THEM.
 5. ANY PIECE OF WRITTEN WORK WHICH IS NOT FOR MARKING PURPOSES MUST BE CROSSED OUT CLEARLY.

THIS PAPER MUST NOT BE OPENED UNTIL PERMISSION IS GIVEN BY THE
INVIGILATOR

Question 1

Read the following newspaper article on a real life issue and give responses to the following question

DOES EARTH HOUR ACTUALLY BENEFIT THE ENVIRONMENT?:

*The short answer is yes.as long as people and companies are participating in Earth Hour of their own choice ... here are three reasons 1. Attention: seizes our attention ... the key to this particular attention is that Earth Hour **gets folks to actively turn the lights off** or keep them on in protest. At the very least there will be discussion on the benefits or drawbacks and the necessity ... it is better to have dialogue than no dialogue ... (The Times of Swaziland, Tuesday March 21, 2017).*

Join this debate by discussing the question raised in the title with respect to the points included in this excerpt. (25)

Total

25 Marks

Question 2

Indigenous Knowledge Systems (IKS) is considered to deal with science in society. With the aid of examples, describe IKS and compare and contrast it with school science.

Total

25 Marks

Question 3

Appendix A presents a Grade 5 lesson from the NCC primary science books.

- a. Show what **and** how various issues of society and technology have been included in the lesson. (15)
- b. Justify this inclusion of issues of society and technology in science teaching. (10)

Total

25 Marks

Question 4

- a. Describe the global warming phenomenon.
- b. Draw an outline of a presentation you might give to a workshop on the strategies that are in place for mitigating environmental degradation

Total

25 Marks

Question 5

Read the following extract from a SADC report to a conference on the implementation of Agenda 21, on sustainable development.

After a decade of largely unsustainable development in Southern Africa the livelihoods of many people and the economic prospects of most countries continue to be threatened by environmental degradation ... (Pernilla Strid, report of SADC implementation of agenda 21)

Discuss this report and its implications for education.

(25)

Unit 5

5.1 Technology changes our lives

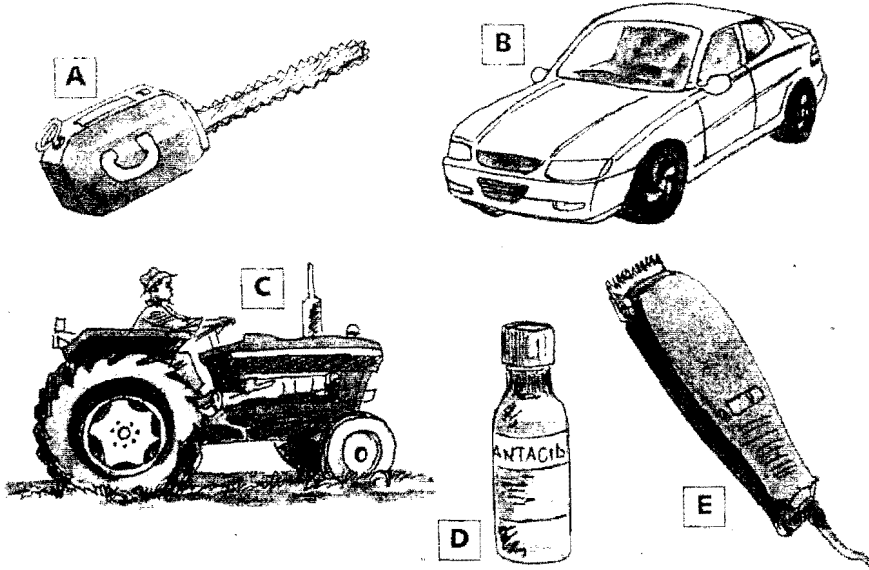
In Grade 4 you learnt about various objects made through technology. Technology is the use of tools and materials to produce something (an end product). In technology today, people use their scientific knowledge and skills to make new and better things that can help to improve their lives.

In this lesson you should be able to:

- describe some of the ways in which technology has changed our lives
- state the advantages and the disadvantages of various technological objects.

Try this!

Look at the pictures and discuss each object with your partner.



APPENDIX A

1. Name each object.
2. Explain what each object is used for.
3. Before the objects on page 106 were invented, what do you think people used?

Some of the objects that you have just discussed have been around for a long time; others are more recent (new) inventions. Even objects used before we had cars and electric razors are part of technology. Technology has been around for thousands of years – since the first people started to make things to improve their lives.

For example, long ago people used chalk to write on stone. Later technology produced ink and paper. Then came machines like the typewriter and the computer, which are used to type words, and printers, which can copy the words onto paper.

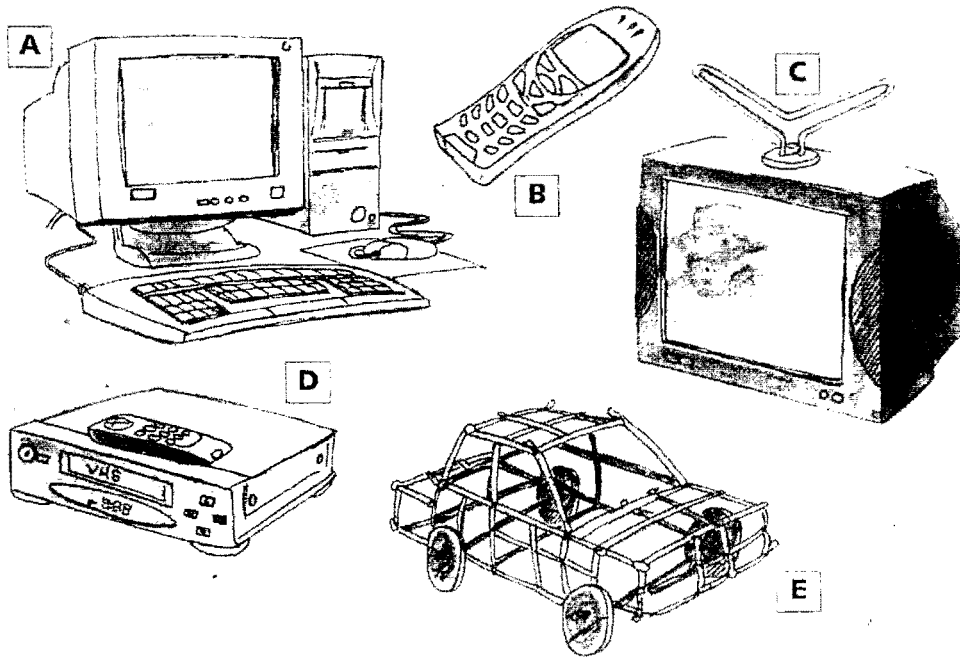
Work in your groups. Imagine that you want to write a poem. Discuss each of the following questions:

1. How long do you think it would take to write out your poem using chalk on stone?
2. How long do you think it would take to write out your poem using ink and paper?
3. How long do you think it would take to write out and print your poem using a computer?
4. What, do you think, are the disadvantages of using each method when writing your poem? What, do you think, are the advantages?

Now look at each of the objects in the drawings on the next page.

Name each of the objects.

APPENDIX A



Try to think of one advantage and one disadvantage of each object in a person's life. Write these under three headings in your exercise book. Your headings should be:

- Name of object
- Advantage
- Disadvantage

Find out!

Is technology good or bad for us?

You are going to debate this question in groups. Some of you will give reasons to explain why technology is good for us and others will give reasons to explain why technology is bad for us. Ask members of your family at home for their opinions to help you come up with some good reasons.