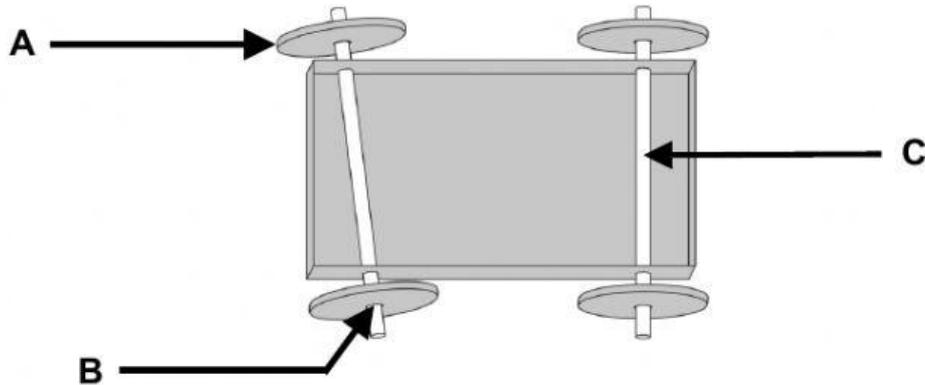


**QUESTION 1: Energy and Movement**

(10 marks)

Study the drawing below carefully and then answer the questions that follow:



1.1 Label the drawing.

A) \_\_\_\_\_

B) \_\_\_\_\_

C) \_\_\_\_\_

(3)

1.2 Give a suitable definition for B.

\_\_\_\_\_  
 \_\_\_\_\_

(2)

1.2 State what improvement can be made to the vehicle that will allow it to function properly?

\_\_\_\_\_

(1)

1.3 Tabulate the differences between:

A. a turning axle

B. a fixed axle

C. a system

D. a mechanism

<b>A.</b>	<b>B.</b>
<b>C.</b>	<b>D.</b>

**QUESTION 2: Stored Energy**

(5 marks)

A →

B →

2.1 Identify the 3 elements that will allow the candle to burn.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(1½)

2.2 What was removed from the experiment in picture B that extinguished the flame.

\_\_\_\_\_

(½)

2.3 Complete the following sentence:

The energy found in wax, is released as \_\_\_\_\_ and \_\_\_\_\_ energy when a candle is burnt.

(1)

2.4 Explain the difference between a flammable and non-flammable fuel.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2)

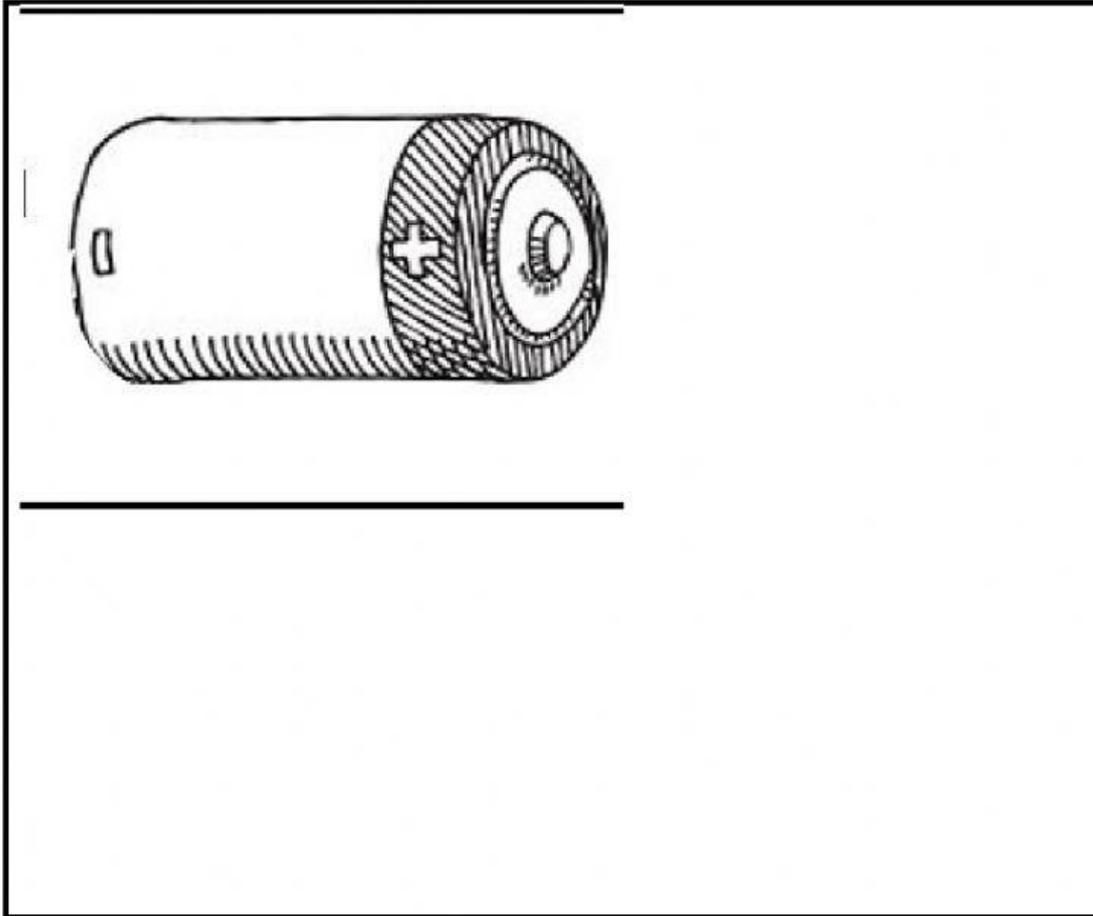
[5]

**QUESTION 3: Energy and Electricity**

(11 marks)

Answer the following questions:

3.1 Name the battery and illustrate the symbols on either point.



(3)

3.2 Include the missing words in the following sentences:

3.2.1 Batteries contain \_\_\_\_\_ energy. When it is used, it converts this energy into \_\_\_\_\_ energy. (2)

3.2.2 Energy always flows from the \_\_\_\_\_ end of the battery to the \_\_\_\_\_ end. (2)

3.2.3 A battery serves as an \_\_\_\_\_ source in a circuit and is connected to \_\_\_\_\_. (2)

3.2.4 In mains electricity, the battery is replaced by a \_\_\_\_\_ that produces electricity on a much larger scale. (1)

3.2.5 The energy (electricity) is sent through \_\_\_\_\_ and supported by pylons and carried to different substations. (1)

[11]

**QUESTION 4:** The Earth

(5 marks)

State whether the following are True or False.

If False, provide the correct answer.

4.1 An orbit is the path of an object in space that revolves around another, such as the path of the Earth around the Sun.

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4.2 An axis is an imaginary line that creates night and day on Earth.

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4.3 It takes Mars 687 days to go around the Sun once.

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4.4 Humus contains dead plant and animal matter and is found on the same level as topsoil.

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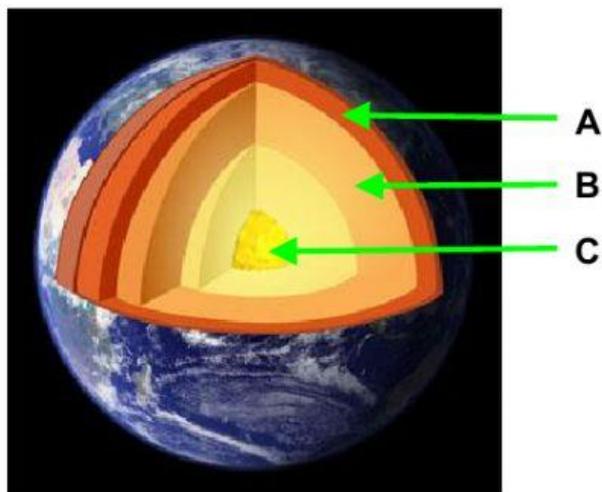
[5]

**QUESTION 5:** The Surface of the Earth

(4 marks)

Carefully label the following drawings:

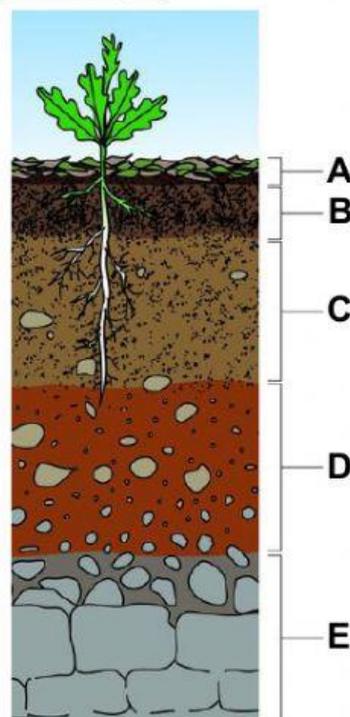
Drawing A



Drawing A

A. \_\_\_\_\_  
 B. \_\_\_\_\_  
 C. \_\_\_\_\_

Drawing B



Drawing B

A. \_\_\_\_\_  
 B. \_\_\_\_\_  
 C. \_\_\_\_\_

(1½)

D. \_\_\_\_\_  
E. \_\_\_\_\_

(2½)

[4]

**QUESTION 6:** Types of Soil

(4 marks)

6.1 In two sentences explain what sandy soil looks like.

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(1)

6.2 List two places where one is able to find clay soil.

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(1)

6.3 Briefly explain why loam soil is the best soil to plant crops in.

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(1)

6.4 Outline a good explanation of the term 'erosion'.

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(1)

[4]

**QUESTION 7:** Sedimentary Rock

(5 marks)

Match the information in Column A with the information in Column B.

Only write the correct alphabetical letter.

Word	Definition
1. Limestone	A. When wind and water deposit sand.
2. Shale	B. Rocks that break up into smaller pieces.
3. Sandstone	C. Dead sea creatures that make a layer at the bottom of the ocean.
4. Sediments	D. Grains of sand cemented together.
5. Deposition	E. Grains of clay that are cemented together.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
_____	_____	_____	_____	_____

[5]

**QUESTION 8: Fossils**

(6 marks)

8.1 Identify the type of fossil in the following pictures:

**Picture 1****Picture 2**

Picture 1: \_\_\_\_\_ (½)

Picture 2: \_\_\_\_\_ (½)

8.2 Give a definition for each of the following words:

8.2.1 Preserved

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(1)

8.2.2 Extinct

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(1)

8.2.3 Fossil record

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(1)

8.2.4 Fossil site

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(1)

8.3 Name two fossils that show us the kind of things that lived in South Africa long ago.

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(1)

[6]

**TOTAL: 50**