

Grade 7

Herbert Hurd Primary School

Natural Science

June 2017

60 marks

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**INSTRUCTION:**     **Rule off between each question.**

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**Section A: Multiple Choice – Write only the number and the correct letter.**

1. All of life on Earth exists in an area known as the...
  - A. Hydrosphere
  - B. Lithosphere
  - C. Biosphere
  - D. Atmosphere
  
2. Seeds that are dispersed by being eaten by animals are...
  - A. Light and dry
  - B. Contained in a sweet, fleshy fruit
  - C. Explosive
  - D. Surrounded by hooks and barbs
  
3. An example of an inherited characteristic is...
  - A. A tattoo
  - B. Eye colour
  - C. A suntan
  - D. Dyed hair
  
4. Chromatography is used to separate a mixture of...
  - A. Sand and water
  - B. Iron and sand
  - C. Pigments and dyes
  - D. Ethanol and water



5. Which of the substances below is an acid?

- A. Vinegar
- B. Bicarbonate of soda
- C. Water
- D. Soap

[5]

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**Section B: Vocabulary – Write only the term being described for each sentence.**

- 1. Elements found in the area between the metals and non-metals on the Periodic Table.
- 2. The point at which a solid changes into a liquid.
- 3. The life process in which wastes are removed from the body.
- 4. Plants which have cones instead of flowers (e.g. Pine trees)
- 5. A sweet substance with which flowers attract pollinators.

[5]

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**Section C: Match the columns – Write only the number and the correct letter.**

You are given two options for each question. Choose either A or B for each question.

1. One of the five main groups that living things are divided into:	a) Lithosphere b) Kingdoms
2. An animal with a backbone	a) Endoskeleton b) Exoskeleton
3. The <i>water</i> in a salt water solution	a) Solute b) Solvent
4. An animal without a backbone	a) Endoskeleton b) Exoskeleton
5. Conductor	a) Wood b) Copper

[5]

### Section D: Life and Living

1. Study the diagrams below. A has been completed for you.

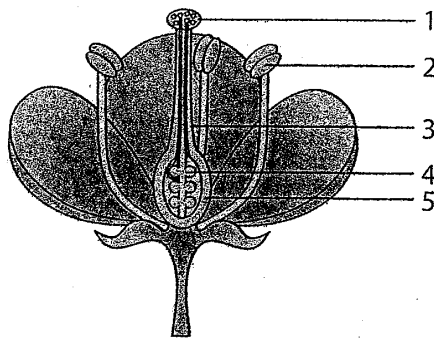
Redraw the table to complete your answers for diagram B, C and D.



ORGANISM	A	B	C	D
Vertebrate or invertebrate	<i>Invertebrate</i>			
Type of vertebrate or invertebrate	<i>Insect</i>			
<u>Visible</u> characteristic used to identify the vertebrate/invertebrate	<i>Body divided into three main segments.</i>			

[9]

2. Look at the diagram below:



The parts of the flower are labelled 1 – 5.

a) Give the number and name that labels the part that develops into a fruit.

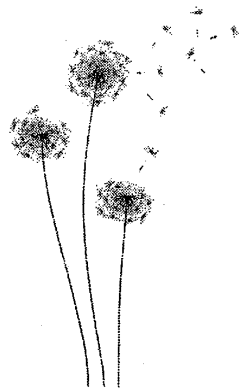
b) Give the name and explain the role of number 2 on the diagram.

[3]

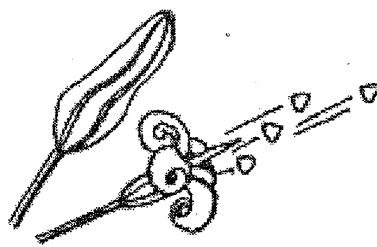
3. What method of seed dispersal do you think each one uses? Give a reason for your answer.

GRAVITY    ANIMAL    WIND    EXPLOSIVE FORCE    WATER

a) Dandelion Plant



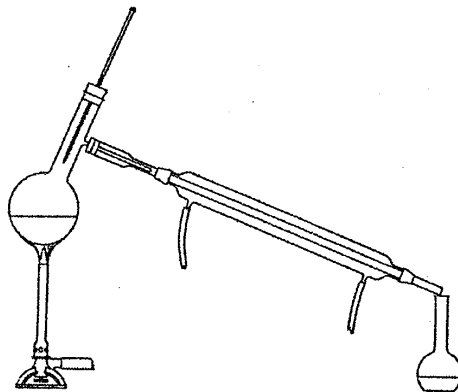
b) Jewelweed Seedpod



[4]

#### Section E: Matter and Materials

1. The diagram below shows a method used to separate a mixture of two liquids.



- a) What is the name of this method of separation?  
b) What is the name of the apparatus used in the above diagram?

[2]

2. Complete the table below by writing the letter and the correct answer.

	ACIDS	BASES	NEUTRALS
EXAMPLE	Lemon Juice	Washing Powder	.....a).....
PROPERTIES	Tastes ....(b)....	Tastes ....(c)....	Neither an acid nor a base
	If your rub an acid between your fingers, it feels .....(d)..... on the skin.	If your rub a base between your fingers, it feels .....(e)..... on the skin.	
	Many acids and bases are dangerous to taste and feel because they are .....(f)..... (They can dissolve metals and burn your skin)		

[6]

3. Red litmus indicator was used to test toothpaste. It turned blue.

What does this tell you about toothpaste?

[1]

4. What colour would blue litmus paper be in orange juice?

[1]

5. Imagine you have been given a metal element that you have never seen before. List FOUR properties it could have.

[4]

6. Give the symbols of the following elements:

a) Helium

b) Sulfur

[2]

7. Give the names of the elements with the following chemical symbols:

a) K

b) Ne

[2]

