



**KINROSS
COLLEGE**

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Year 7 Science Examination

Semester 1 2016

Question and Answer Booklet

Student Name:

Teacher:

Time allowed for this paper: **2 hours**

Materials required: **Pens, pencils, eraser, ruler, calculator**

Topic	Section	Marks
Earth Science	Multiple Choice	/15
	Short Answer	/10
Physical Science	Multiple Choice	/15
	Short Answer	/10
Extended Answer		/20

PART A: MULTIPLE CHOICE

Circle the answer that best fits the statement or question.

1. The definition of the term 'resource' is:

- a) The building blocks of all living things
- b) Materials made by man
- c) Anything supplied by Earth to satisfy a particular need of humans or other living things
- d) A material supplied to Earth to improve its quality

2. The definition of a 'Renewable Resource' is:

- a) A resource which can be recycled
- b) A resource that can be used over and over again without being used up
- c) A resource that cannot be replaced as it is reused
- d) A resource that can be replaced as it is used

3. Which of the following is an example of a non-renewable resource?

- a) Sunlight
- b) Air
- c) Fossil Fuels
- d) Water

4. Which of the following is NOT a step in the Water Cycle?

- a) Weathering
- b) Precipitation
- c) Run off
- d) Evaporation

5. The amount of water vapour in the air is referred to as:

- a) Infiltration
- b) Run off
- c) Transpiration
- d) Humidity

6. The main components of soil are:

- a) Sediment
- b) Living things
- c) Dissolved gases and minerals
- d) All of the above

7. Humus is a term used when referring to:

- a) Dirt
- b) Dissolved minerals
- c) Bacteria
- d) Decaying wastes and dead organisms

8. Some households recycle grey-water, this means:

- a) Sewerage water is used to water the garden
- b) Waste water from baths, showers and washing machines are used to water the garden
- c) Grey water from the hose is used to water the garden
- d) Water is collected in a rainwater tank and used for showers

9. The galaxy we live in is called the:

- a) Milky Way Galaxy
- b) Centurion Galaxy
- c) Mars Bar Galaxy
- d) Capricorn Galaxy

10. A lunar eclipse is best described as:

- a) When the Moon passes directly behind the Earth
- b) When the Earth passes directly behind the Moon
- c) When the Sun is in between the Earth and the Moon
- d) (d)When the Moon goes behind the Sun

11. A solar eclipse is best described as

- a) When the Moon passes between the Sun and Earth
- b) When the Moon goes behind Earth
- c) The Moon turns black
- d) The Earth goes behind a star

12. The time taken for the Earth to revolve around the Sun is?

- a) One Month
- b) One Day
- c) One Year
- d) Twelve Hours

13. The planet closest to the Sun is called:

- a) Mars
- b) Mercury
- c) Venus
- d) Jupiter

14. When the southern hemisphere is experiencing Autumn, the northern hemisphere is experiencing:

- a) Winter
- b) Summer
- c) Spring
- d) Autumn

15. Pluto, Ceres, Makemake are types of what:

- a) Rocky Planets
- b) Terrestrial Planets
- c) Dwarf Planets
- d) Alien Planets

16. The definition of a Force is:

- a) A push, pull or a twist
- b) The gravity of an object
- c) Balancing of objects
- d) All of the above

17. The unit used to measure forces is:

- a) Newton (N)
- b) Centimetre (Cm)
- c) Decibel (Db)
- d) Kilogram (Kg)

18. An example of a balanced force is:

- a) Two people playing tug-o-war with equal force
- b) Riding a bike up a steep hill on a windy day
- c) Skateboarding down a steep bumpy road
- d) Pushing a shopping trolley up an escalator with a broken wheel

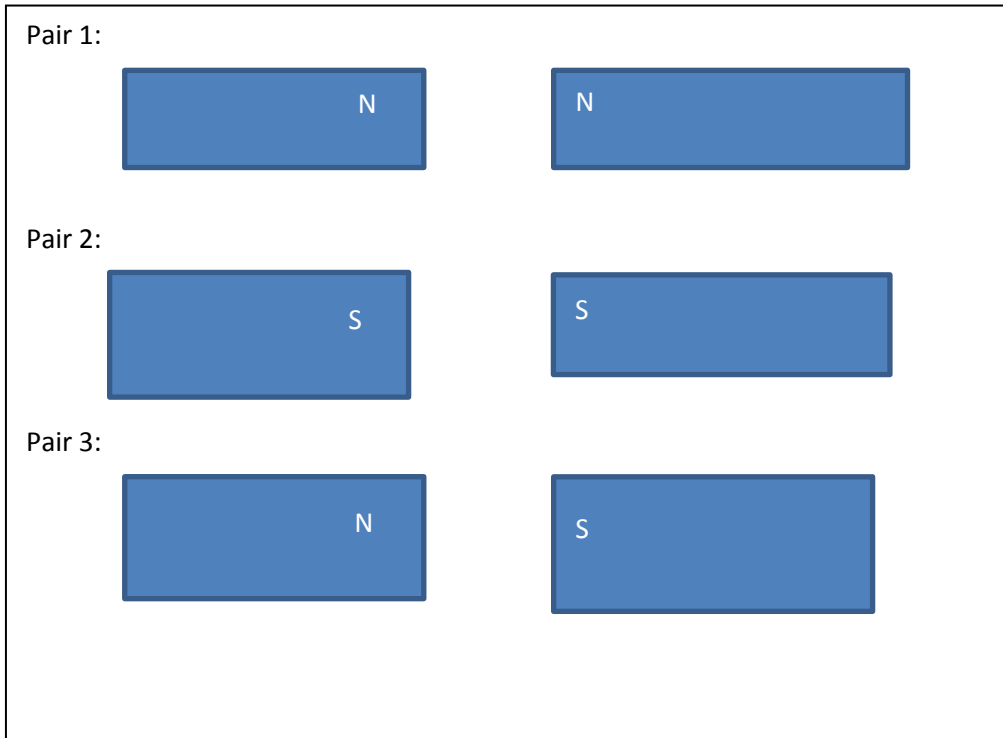
19. Which of the following is NOT a way to reduce Friction?

- a) Lubricating the surfaces of objects
- b) Reducing the amount of pressure on the objects
- c) (c)Reducing the amount of contact between objects
- d) Increasing the roughness of the surface of objects.

20. Which of the following is not a type of magnet?

- a) Neutron Magnet
- b) Permanent Magnet
- c) Electromagnet
- d) Temporary Magnet

Question 21 and 22 refers to the picture below:



21. North poles and South poles of the magnet are indicated by the letters. Which magnets will repel each other?

- a) Pair 1 and 2
- b) None of them
- c) All of them
- d) Pair 3

22. Which magnets will attract each other?

- a. All of them
- b. None of them
- c. Pair 3
- d. Pair 2 and 3

23. The definition for the term 'Magnetic Field' refers to:

- a. The place where two magnets stick together
- b. The space around a magnet where a magnetic force is experienced
- c. A place where magnets come from
- d. The objects that magnets attract

24. Gravity is the force of:

- a. Attraction
- b. Addition
- c. Subtraction
- d. Repulsion

25. If Earth did not have a gravitational field, what would happen to objects on the Earth's surface?

- a. Objects would sink into the ground
- b. Objects would float away into space
- c. Objects would stick together like magnets
- d. Objects would float above the ocean

26. Simple Machines that magnify the force you apply to do a job are called?

- a. Force Multipliers
- b. Force Minimiser
- c. Force Magnifier
- d. Gravity

27. A zip is an example of which type of Simple Machine:

- a) Lever
- b) Pulley
- c) Wheel
- d) Wedge

28. A wheelbarrow is an example of:

- a. A first class lever
- b. A second class lever
- c. A third class lever
- d. A fourth class lever

29. Aircraft propellers and boat propellers are both examples of which type of Simple Machine?

- a. Lever
- b. Pulley
- c. Wedge
- d. Screw
- e.

30. Gears are:

- a. Wheels with smooth rims
- b. Wheels with teeth around their rim
- c. A fancy word for a wheel and an axle
- d. A type of axle

END OF PART A

PART B: SHORT ANSWER

(20 marks)

31. Classify the following resources as Non- renewable or Renewable by placing a tick in the correct column. (5 marks)

Resource	Non-renewable	Renewable
Gum trees		
Water		
gas		
Sheep		
oil		

32. Draw and label the phases of the moon. Three are done for you (5 marks)

1.	2.	3.	4. Waxing Gibbous
5. Full Moon	6.	7.	8. Waning Crescent

33. What do Simple Machines do?

(2 marks)

34. Name three types of Simple Machines.

(3 marks)

1. _____

2. _____

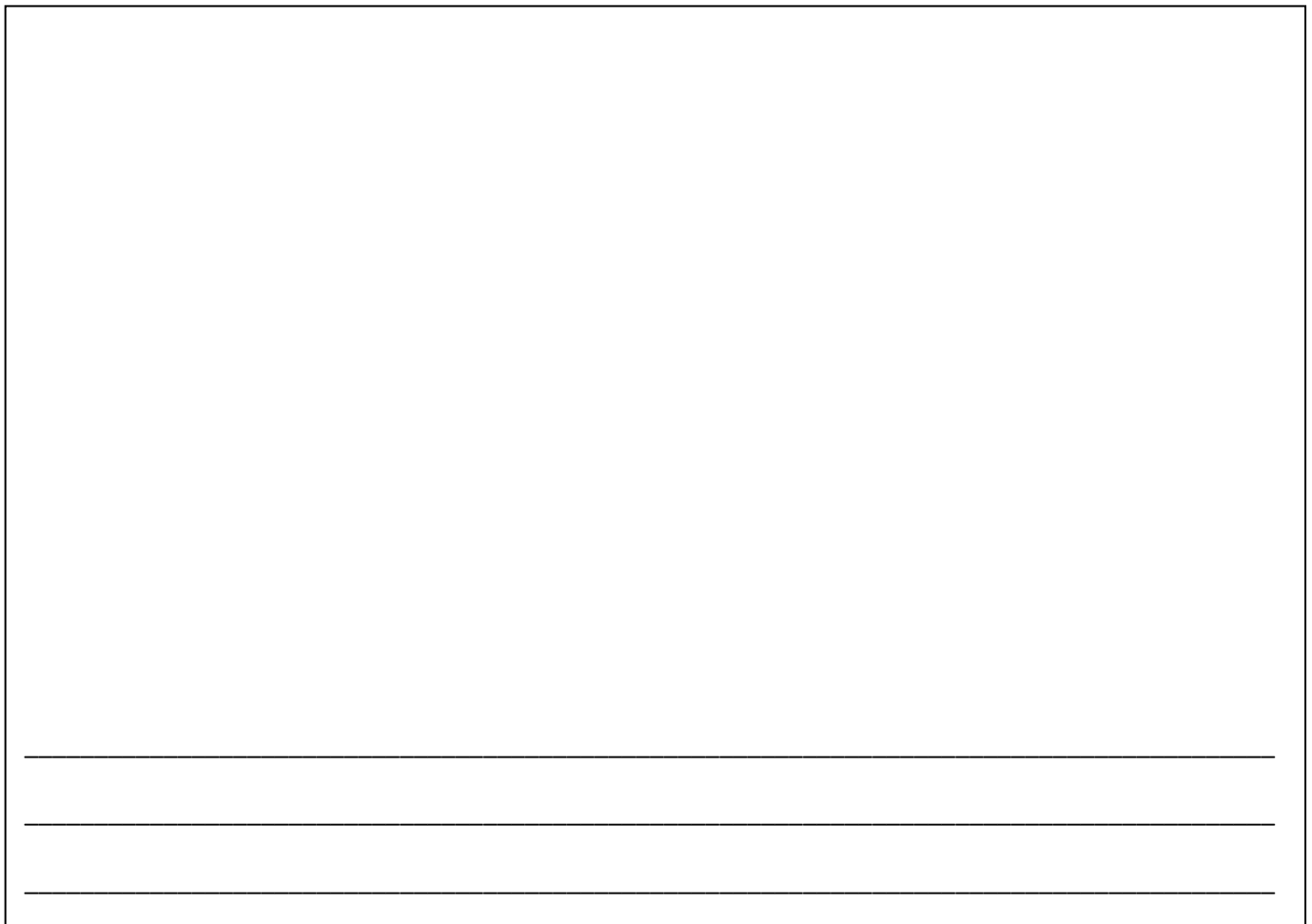
3. _____

35. In the box below draw a diagram that demonstrates how you could use a ramp or inclined plane to help you in everyday life.

(2 marks)

Underneath the diagram, describe how a ramp or inclined plane can help you.

(3 marks)

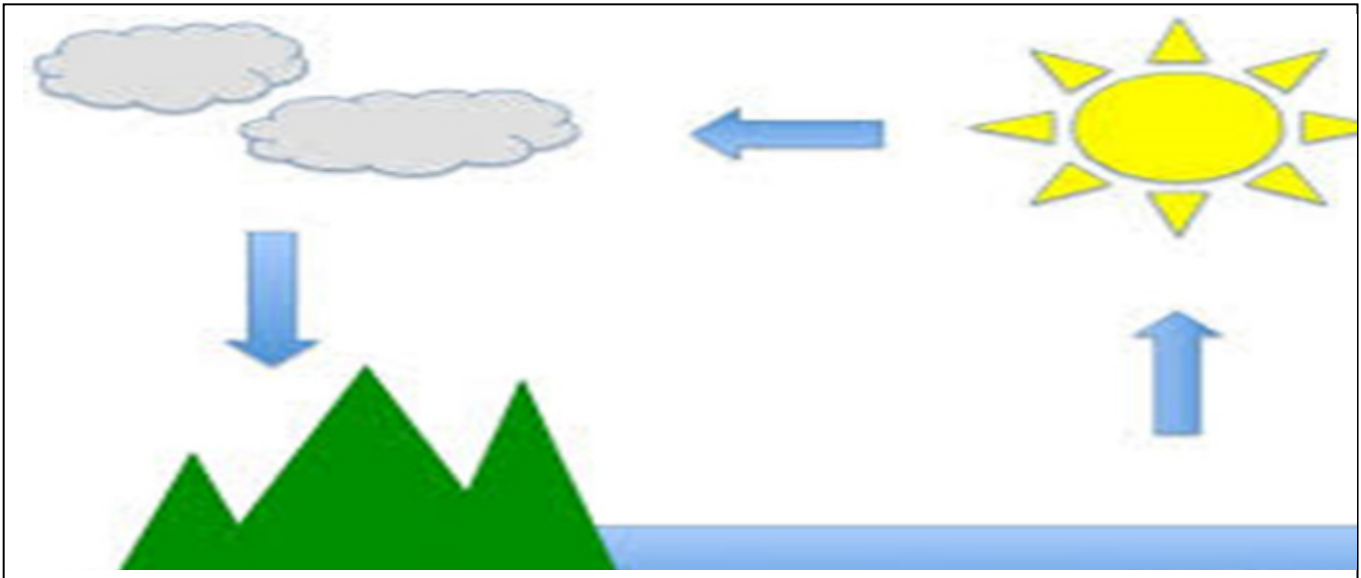


END OF PART B

PART C: EXTENDED ANSWER

(20 marks)

Use the Water Cycle diagram below to answer the following questions.



37. What is one method you could do at home to recycle water and explain why it is important that water is recycled in nature? (3 marks)

37. In the boxes below draw a diagram of the following: You must label the Effort, Fulcrum and Load. (3marks)

1 st class lever	2 nd class lever	3 rd class lever
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38. Explain why a boat propeller is classified as a screw. Draw a diagram to demonstrate your understanding. (3 marks)

39. Miss Wagner's Year 7 class conducted a survey on students who recycled. The results table below shows the number of males and females who recycle from three science classes:

Classes	Number of males who recycle	Number of females who recycle	Total number of students in class
Mr. Avenell	16	16	32
Mr. Fitz	6	21	27
Mr. Alexander	19	11	30

(a) Construct an appropriate graph below to compare the 3 classes (5 marks)

