

Name \_\_\_\_\_

Roll No. \_\_\_\_\_

Time allotted: 2 hr 30 mins

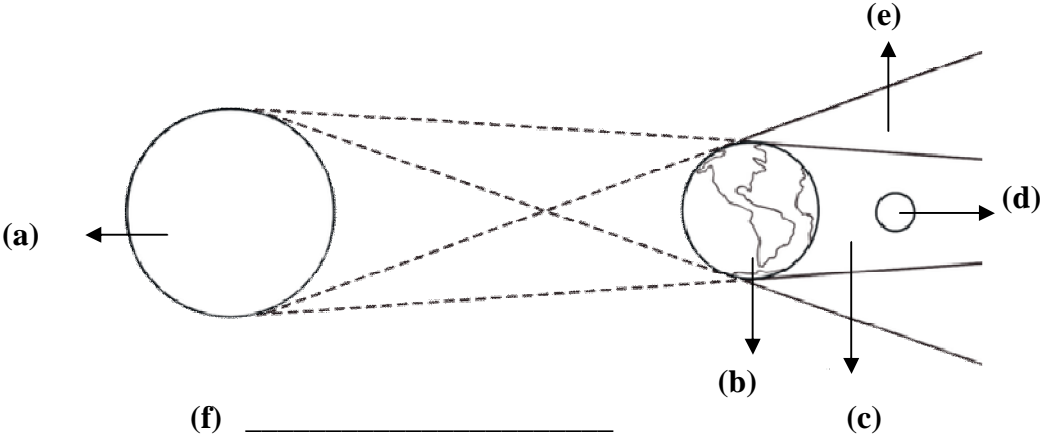
**General Instructions**

- 1) All questions are compulsory
- 2) Section A (Q1 - 17) carry 1 mark each and (Q-18) carry 3 marks.
- 3) Section B (Q19-20 ) carry 1 mark each and (Q 21) carry 3 marks.
- 4) Section C (Q 22-25) carry 2 marks each.
- 5) Section D ( Q26 – 28) carry 3 marks each.
- 6) Section E ( Q 29-30) carry 4 marks each.
- 7) Section F (Q 31-32) carry 5 marks each.

**Section – A**

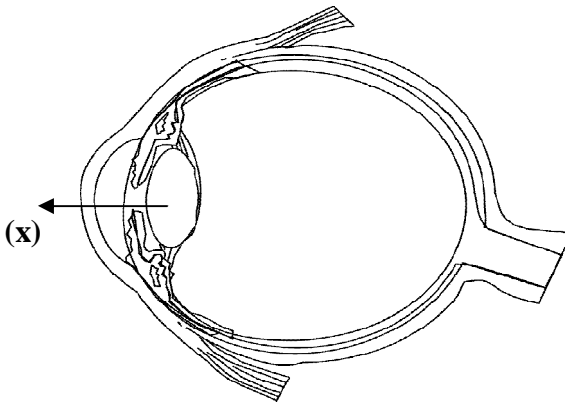
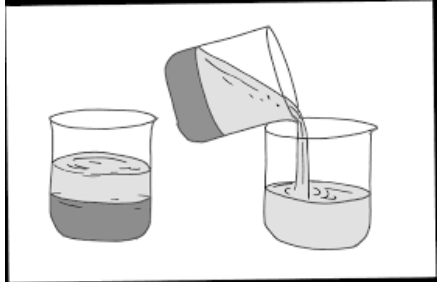
Q. No		Marks
	<b>Choose the correct answer from given options</b>	
1	It connects rest of the body to the brain through the nerves. a) Nerves                      b) Eyes                      c) Spinal cord                      d) Ears	1
2	There are five layers in the atmosphere. In which layer the space shuttles move? a) Troposphere                      b) Stratosphere                      c) Exosphere                      d) Thermosphere	1
3	It can be a solid , liquid or gas. a) Atom                      b) Matter                      c) Molecule                      d) Element	1
4	We are able to stay on the ground because of _____ force. a) frictional                      b) gravitational                      c) elastic                      d) mechanical	1
5	In this disease the bones become soft. a) Rickets                      b) Malaria                      c) Scurvy                      d) Goitre	1
6	When the mosquito bites a healthy person ,the protozoa are injected into person blood causing malaria. Which mosquito is responsible for causing malaria? a) Anopheles mosquito b) Aedes mosquito c) Edes mosquito d) Anaphily	1
7	State True / False: CFC is a chemical widely used in air conditioners and refrigerators. a) True b) False	1
8	The sensory nerves which connects the eye to the brain are called _____ nerves. a) mixed                      b) optic                      c) motor                      d) reflex	1

Q. No		Marks
9	<p>Some gases have the property of trapping energy from the sun. Which gases do you think have these properties?</p> <p>a) Carbon dioxide , Oxygen , Methane.  b) Methane , Water vapours , Carbon dioxide.  c) Methane , Oxygen , Hydrogen.  d) Ozone , Helium , Hydrogen.</p>	1
10	<p>Identify the correct statement/ statements :</p> <p><b>Statement 1</b> : Liquids can flow.  <b>Statement 2</b> : The molecules in liquids are tightly packed.  <b>Statement 3</b> : Solids have no definite shape and volume.</p> <p>a) Statement 1,2,3 are correct.  b) Statement 1 and 3 are correct and statement 2 is false.  c) Statement 2 , 3 are false and statement 1 is correct.</p>	1
11	<p>Identify the incorrect statement/statements:</p> <p><b>Statement 1</b> : When the lava is below the earth's surface it is called magma.  <b>Statement 2</b> : Mount Vesuvius is a dormant volcano.  <b>Statement 3</b> : The Barren Island is an active volcano.</p> <p>a) Statement 1,2,3 are incorrect.  b) Statement 1 and 3 are correct and statement 2 is false.  c) Statement 2 , 3 are false and statement 1 is correct.</p>	1
12	<p><b>Fill in the blanks :</b></p> <p>People who study earthquakes are called _____.</p>	1
13	<p>_____ and _____ movements are some steps taken by government to protect trees.</p>	1
14	<p>_____ are the smallest unit of a substance that can exist independently.</p>	1

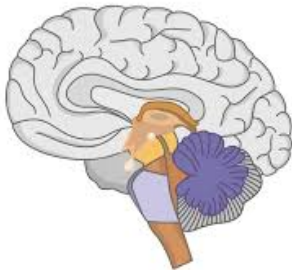
15	<p><b>Correct the given statement and rewrite:</b></p> <p>Electrical charges moving through a wire is called proton.</p>	1
16	<p><b>Correct the given statement and rewrite :</b></p> <p>Substances that dissolve completely in water are called insoluble substances.</p>	1
17	<p><b>Correct the given statement and rewrite:</b></p> <p>A greenhouse is a glasshouse where we grow plastic especially during summer.</p>	1
18	<p><b>Identify the diagram and label it :</b></p>  <p>(a) _____</p> <p>(b) _____</p> <p>(c) _____</p> <p>(d) _____</p> <p>(e) _____</p> <p>(f) _____</p>	3

**SECTION - B**

**Picture based questions**

19	<p><b>Identify the diagram and label X :</b></p>  <p>_____</p> <p>_____</p>	(1)
20	<p><b>Identify the process :</b></p>  <p>_____</p>	(1)

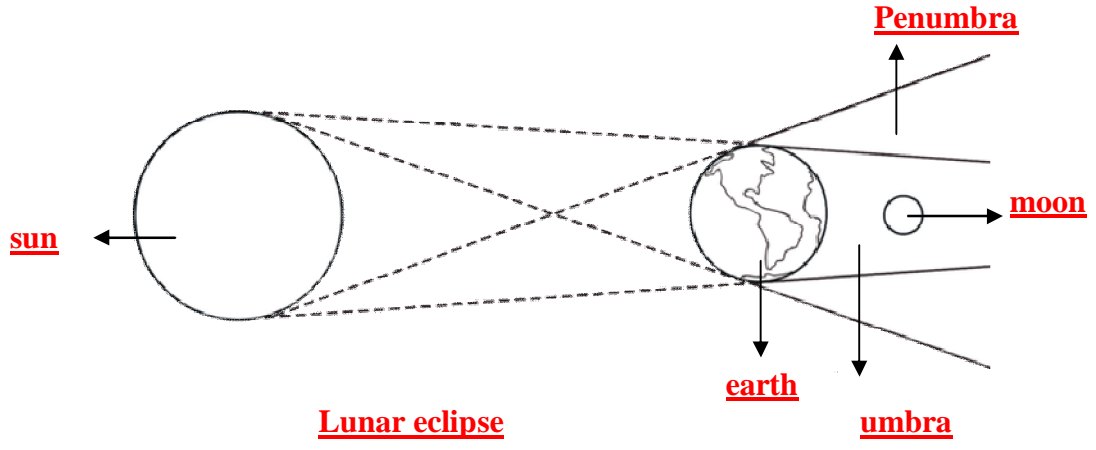
21	<p><b>Read the passage and answer the questions :</b></p> <p>These vibrations release great energy and can cause the ground to quiver. Earthquakes of high intensity often cause great destruction on the earth's surface. The earth's upper layer, the crust, is made of large and small plates. The layers under the plates are constantly moving.</p> <p>a) What are earthquakes ?</p> <p>b) Who invented Richter scale ?</p> <p>c) Name the earth's upper layer.</p>	1+1+1
<b>Section – C</b>		
22	Energy is everywhere in nature. What does the law of conservation of energy states ?	2
23	Differentiate between element and compound . Give examples.	2
24	Ria has swollen neck region. Which disease she is suffering from? What is the cause of this disease ?	2
25	The sense of taste and the sense of smell are linked .The food does not taste too good when we have cold. Why?	2

<b>Section – D</b>		
26	Name the four gases present in the air .Draw the composition of air to support your answer.	3
27	If the man weighs 90kg on the earth . What will be his weight on the moon ?	3
28	Pollution is the spoilage of land , air and water. Smoke from factories, vehicles and garbage from houses pollute the water and the air. How can we prevent pollution of air and water ?	3
<b>Section – E</b>		
29	<p>Identify the diagram and explain its different parts in detail .</p>  <p style="text-align: center;">_____ (a)</p>	4

30	<p style="text-align: center;"><b>(Internal choice)</b></p> <p>Explain the process of filtration with the help of diagram .</p> <p style="text-align: center;">OR</p> <p>How is stratosphere very important layer of atmosphere ? Write any four uses of air?</p>	4
<b>Section – F ( Internal choice)</b>		
31	<p>What are artificial satellites ? How are these satellites useful to mankind ?</p> <p style="text-align: center;">OR</p> <p>Explain different phases of moon in detail.</p>	5
32	<p>Explain different types of lever . Draw diagram with examples.</p>	5

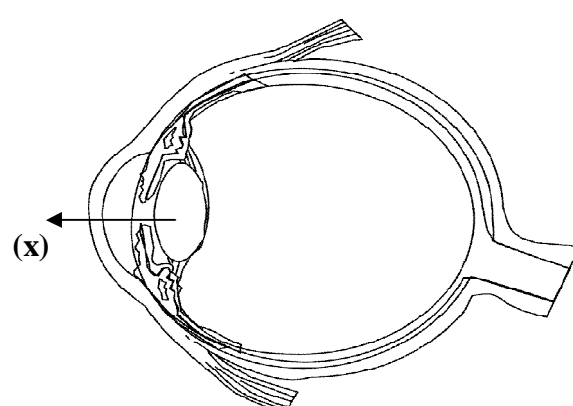
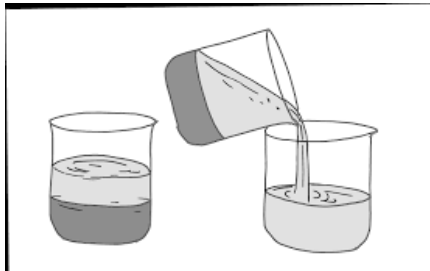
Q. No		Marks
	<b>Choose the correct answer from given options</b>	
1	It connects rest of the body to the brain through the nerves. a) Nerves                      b) Eyes                      c) <b>Spinal cord</b> d) Ears	1
2	There are five layers in the atmosphere. In which layer the space shuttles move? a) Troposphere                      b) Stratosphere                      c) Exosphere                      d) <b>Thermosphere</b>	1
3	It can be a solid , liquid or gas. a) Atom                      b) <b>Matter</b> c) Molecule                      d) Element	1
4	We are able to stay on the ground because of _____ force. a) frictional                      b) <b>gravitational</b> c) elastic                      d) mechanical	1
5	In this disease the bones become soft. a) <b>Rickets</b> b) Malaria                      c) Scurvy                      d) Goitre	1
6	When the mosquito bites a healthy person ,the protozoa are injected into person blood causing malaria. Which mosquito is responsible for causing malaria? a) <b>Anopheles mosquito</b> b) Aedes mosquito c) Edes mosquito d) Anaphily	1
7	State True / False: CFC is a chemical widely used in air conditioners and refrigerators. <b>c) True</b> d) False	1
8	The sensory nerves which connects the eye to the brain are called _____ nerves. a) mixed                      b) <b>optic</b> c) motor                      d) reflex	1

Q. No		Marks
9	<p>Some gases have the property of trapping energy from the sun. Which gases do you think have these properties?</p> <p>a) Carbon dioxide , Oxygen , Methane.</p> <p><b><u>b) Methane , Water vapours , Carbon dioxide.</u></b></p> <p>c) Methane , Oxygen , Hydrogen.</p> <p>d) Ozone , Helium , Hydrogen.</p>	1
10	<p>Identify the correct statement/ statements :</p> <p><b>Statement 1</b> : Liquids can flow.</p> <p><b>Statement 2</b> : The molecules in liquids are tightly packed.</p> <p><b>Statement 3</b> : Solids have no definite shape and volume.</p> <p>a) Statement 1,2,3 are correct.</p> <p>b) Statement 1 and 3 are correct and statement 2 is false.</p> <p>c) <b><u>Statement 2 , 3 are false and statement 1 is correct.</u></b></p>	1
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12	<p><b>Fill in the blanks :</b></p> <p>People who study earthquakes are called <b><u>seismologists.</u></b></p>	1
13	<p><b><u>Chipko and Appiko</u></b> movements are some steps taken by government to protect trees.</p>	1
14	<p><b><u>Molecules</u></b> are the smallest unit of a substance that can exist independently.</p>	1
15	<p><b>Correct the given statement and rewrite:</b></p> <p><b>Electrical charges moving through a wire is called electricity.</b></p>	1

16	<p><b>Correct the given statement and rewrite :</b></p> <p>Substances that dissolve completely in water are called soluble substances.</p>	1
17	<p><b>Correct the given statement and rewrite:</b></p> <p>A greenhouse is a glasshouse where we grow plants especially during winter.</p>	1
18	<p><b>Identify the diagram and label it :</b></p>  <p><u>Lunar eclipse</u></p>	3

**SECTION - B**

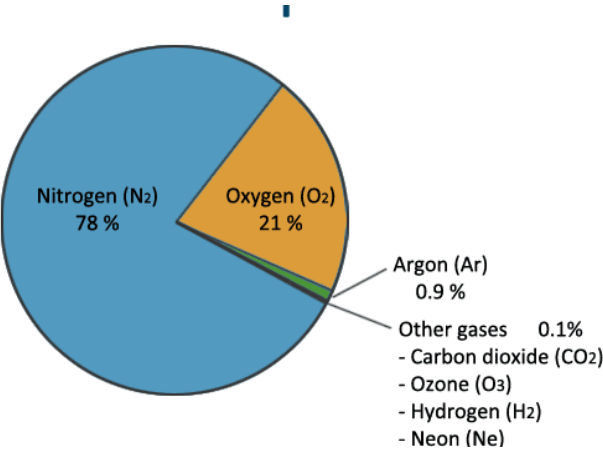
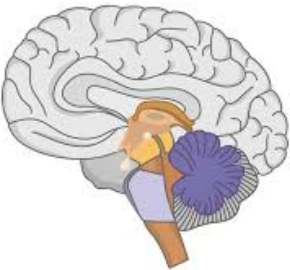
**Picture based questions**

19	<p><b>Identify the diagram and label X :</b></p>  <p><u>Human eye</u> <u>lens</u></p>	(1)
20	<p><b>Identify the process :</b></p>  <p><u>Sedimentation and Decantation</u></p>	(1)

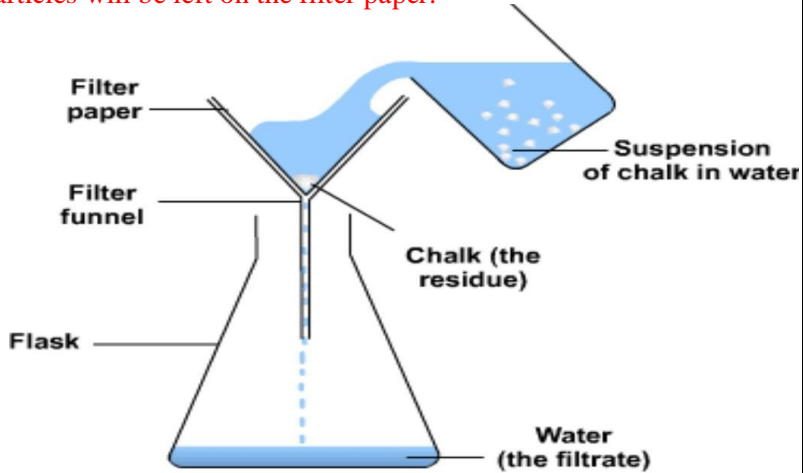


21	<p><b>Read the passage and answer the questions :</b></p> <p>These vibrations release great energy and can cause the ground to quiver. Earthquakes of high intensity often cause great destruction on the earth's surface. The earth's upper layer, the crust, is made of large and small plates. The layers under the plates are constantly moving.</p> <p>a) What are earthquakes ?  <b>Ans. An earthquake is a sudden shaking of the ground caused by movements or vibrations deep inside the earth.</b></p> <p>b) Who invented Richter scale ?  <b>Ans. Charles Richter</b></p> <p>c) Name the earth's upper layer.  <b>Ans. Crust</b></p>	1+1+1
<b>Section – C</b>		
22	<p>Energy is everywhere in nature. What does the law of conservation of energy states ?  <b>Ans. The law of conservation of energy states that energy can neither be created nor destroyed, but can be changed from one form to another. The total energy of an object never decreases or increases.</b></p>	2
23	<p>Differentiate between element and compound. Give examples.</p> <p><b>a) Ans. Elements : Atoms of same kind are called elements. For eg. carbon, oxygen etc</b></p> <p><b>b) Compounds : Atoms of different kinds combine to form compounds. For eg. common salt(NaCl) etc</b></p>	2
24	<p>Ria has swollen neck region. Which disease she is suffering from? What is the cause of this disease ?  <b>Ans. Ria is suffering from goitre. This disease is caused by lack of iodine .</b></p>	2
25	<p>The sense of taste and the sense of smell are linked. The food does not taste too good when we have cold. Why?  <b>Ans. The food does not taste too good when we have cold as our sense of taste is closely linked to our nose. If our nose is blocked, we cannot smell our food, hence can not taste it.</b></p>	2

<b>Section – D</b>
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26	<p>Name the four gases present in the air .Draw the composition of air to support your answer.</p> <p><b>Ans.</b> Gases that are present in the air are Nitrogen (78%) , Oxygen (21%) , Carbon dioxide, argon , water vapours and other gases (less than 1%) .</p> 	3
27	<p>If the man weighs 90kg on the earth . What will be his weight on the moon ?</p> <p><b>Ans.</b> <b>Weight of man on the earth = 90 kg</b>  <b>Weight of man on the moon = <math>\frac{1}{6} \times 90</math></b>  <b>= 15 kg</b></p>	3
28	<p>Pollution is the spoilage of land , air and water. Smoke from factories, vehicles and garbage from houses pollute the water and the air.How can we prevent pollution of air and water ?</p> <p><b>Ans . We can prevent the pollution of air and waterby:</b></p> <ol style="list-style-type: none"> <li>Locating factories in areas far from places where people live.</li> <li>By using tall chimneys fitted in filters in factories.</li> <li>By treating waste before being dumped into water bodies.</li> <li>By dumping garbage in proper places.</li> <li>By reducing use of plastic bags.</li> <li>By planting more trees.</li> <li>By reducing the use of vehicles.</li> </ol>	3
<b>Section – E</b>		
29	<p>Identify the diagram and explain its different parts in detail .</p>  <p style="text-align: center;"><b><u>Human brain</u></b></p> <p><b>Ans.</b> Different parts of the brain are cerebrum , cerebellum and medulla.</p> <ol style="list-style-type: none"> <li><b>Cerebrum</b>: It is the largest part of the brain. It controls the working of our eyes , ears , nose and tongue .It also controls our voice and is the centre of intelligence .</li> </ol>	4

- b) **Cerebellum** : It coordinates the action of the muscles and make them work together .It helps us to balance our body and keep us in an upright posture.
- c) **Medulla** : It connects the brain to the spinal cord . It controls involuntary actions like movement of lungs and the heart.

30	<p style="text-align: center;"><b>(Internal choice)</b></p> <p>Explain the process of filtration with the help of diagram .</p> <p>Ans. The process by which an insoluble impurity is separated from a liquid by passing the mixture through a filter paper is called filtration. Take a circular filter paper and make a cone . Place it inside the funnel. Pour the mixture of soil and water over the filter paper by using a glass rod . Drops of clear water will trickle into the beaker and collect as clear filtrate. Soil particles will be left on the filter paper.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">OR</p> <p>How is stratosphere very important layer of atmosphere ? Write any four uses of air?</p> <p>Ans. Stratosphere is the second layer of atmosphere . Many jet aircrafts fly in this layer. Ozone gas is also present in this layer . It absorbs harmful ultraviolet radiations of the sun and do not allow them to reach the earth's surface.</p> <p>Air is useful to us in the following ways :</p> <ol style="list-style-type: none"> <li>1) Air is needed for burning .</li> <li>2) Air is needed for breathing .</li> <li>3) It is used to inflate football and tubes of tyres.</li> <li>4) It is used to sail boats , turn blades of windmill ,to draw water or to generate electricity.</li> <li>5) Moving air supports parachutes ,gliders and kites.</li> </ol>	4
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**Section – F ( Internal choice)**

31	<p>What are artificial satellites ? How are these satellites useful to mankind ?</p> <p>Ans. Artificial satellites are man – made objects equipped with scientific instruments , sent into space to orbit the earth. These satellites are useful to us in the following ways :</p> <ol style="list-style-type: none"> <li>1) Satellites are used for scientific research and to give valuable information about atmosphere.</li> <li>2 ) <b>Communication satellites</b> are used to send messages from one country to another .</li> </ol>	5
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- 3) **Weather satellites** help to forecast weather .
- 4) **Navigation satellites** are used to track the position of geo – spatial receivers.

OR

Explain different phases of moon in detail.

Ans. The different phases of the moon as seen from the earth are called phases of moon.

- 1) The phase of moon in which entire side of the moon facing the earth gets sunlight is called the **full moon**.
- 2) After 3 – 4 days the size of the moon is smaller than the size of a full moon. This is called **gibbous moon**.
- 3) After a week of seeing full moon , we see **half of the moon**.
- 4) After 11 – 12 days of full moon , we can see low shaped curve moon. This is called **crescent moon**.
- 5) After 14 – 15 days of full moon , we cannot see the moon . This is called **new moon**.
- 6) After new moon phase , the bright portion of the moon increases and finally After 14 – 15 days again **full moon** appears.

32

Explain different types of lever . Draw diagram with examples.

Ans. 1) **First –class lever** : When the fulcrum is in between the load and the effort.

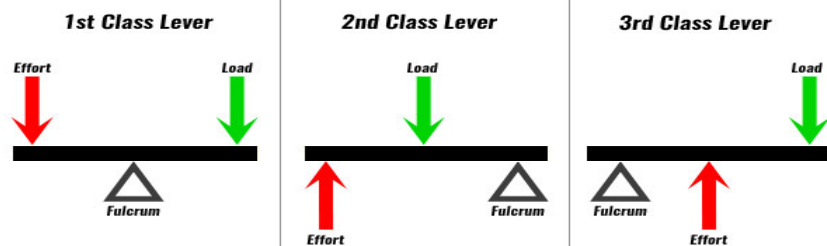
Eg. sea-saw . hammer etc

2) **Second – class lever** : When the load is in between the fulcrum and the effort.

Eg. stapler , wheel barrow etc

3) **Third – class lever** : When the effort is in between the load and the fulcrum.

Eg. broom , sugar tong etc



5



