



# 11-12 YEARS | WEEK 02

## Science-Concepts

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1. Millipedes

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2. Our solar system

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3. Crossword

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4. Choose and write

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5. Do as directed

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6. Word search

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7. Do as directed

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10. Identify and write

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12. True or false

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13. Word search- Fabric

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14. Fill in the blanks- Magnet

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15. Think and write

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16. Word search- Organs

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17. Kitchen experiments

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18. Kitchen experiments

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19. Kitchen experiments

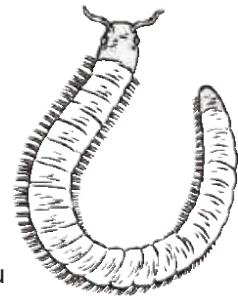
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20. Kitchen experiments

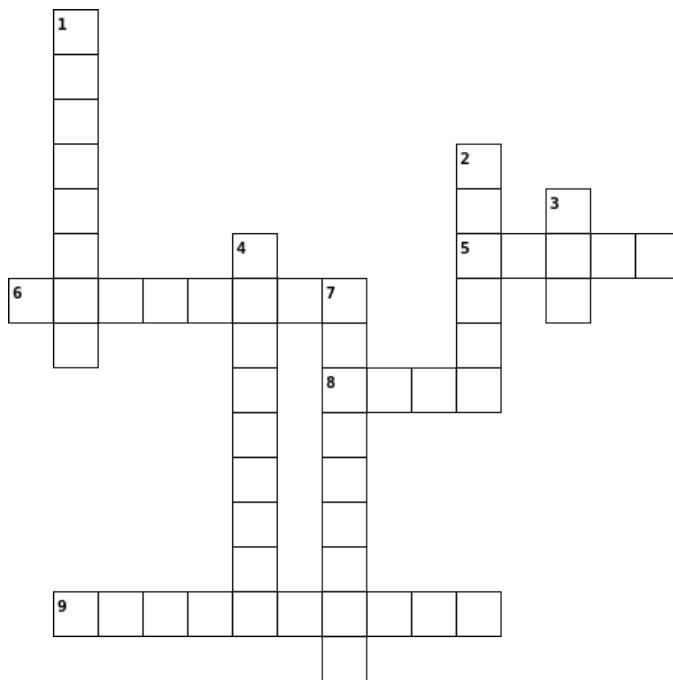
# Millipedes

Millipedes Do Not Have 1,000 Legs.

The term millipede comes from two Latin words - mil, meaning thousand and ped meaning feet. Some people refer to these critters as "thousand leggers." But both names are misnomers because scientists have yet to find a millipede species with 1,000 legs. The millipede that holds the record for most legs has a mere 750, far short of the thousand leg mark.



Here are some questions around body movements and the structure around them. Can you solve this cross word?



## Across

- 5 Show very slow movement
- 6 extends from the neck to the hip
- 8. Protect the heart
- 9. The movement of snakes

## Down

- 1. Is an immovable joint
- 2. Have a streamlined body; have fins on the body
- 3. Smallest bones are located inside our \_\_\_\_
- 4. Has an outer skeleton; can fly in the air
- 7. Has muscular foot

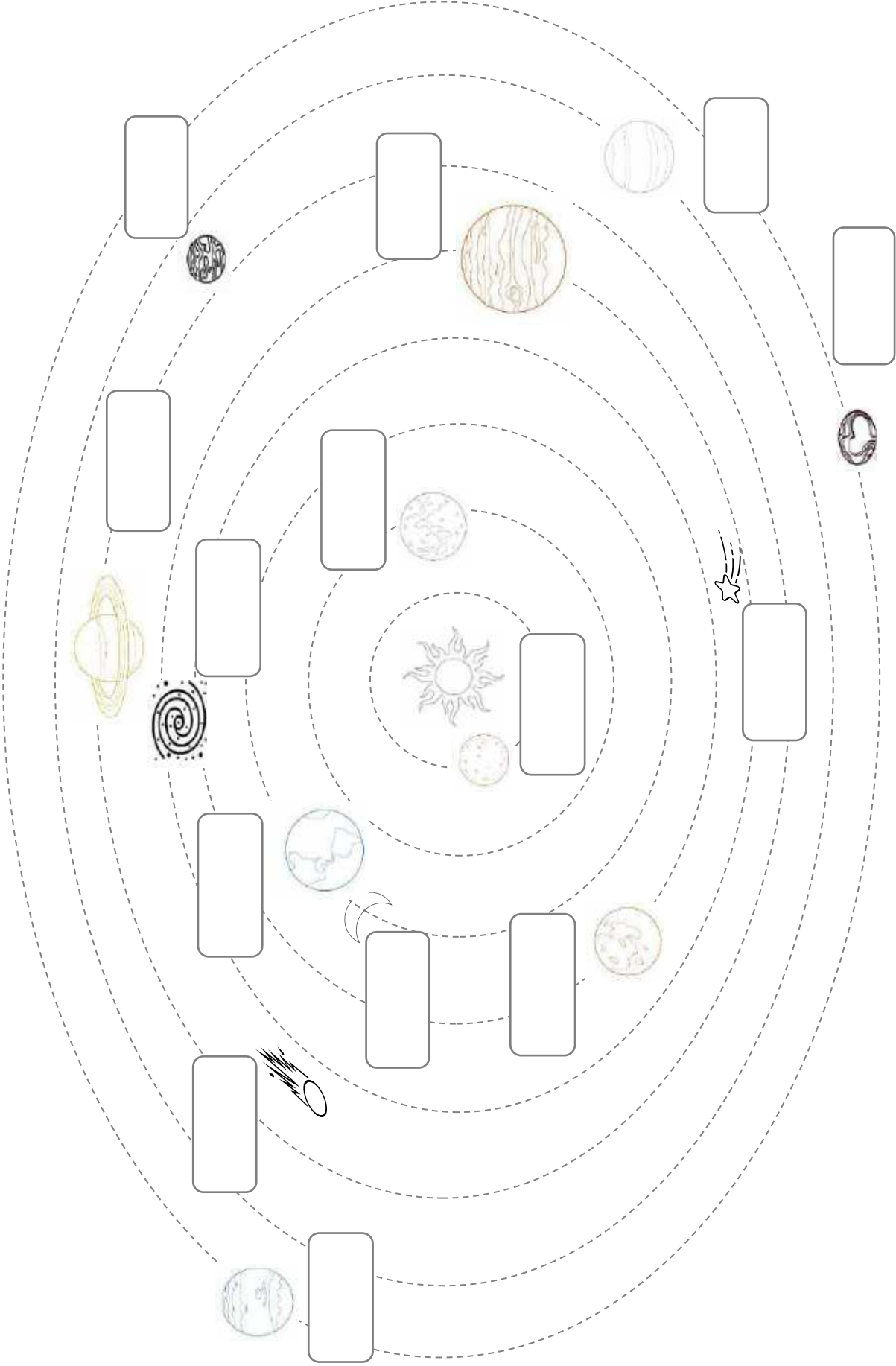
**Answers**

1. Upperjaw. 2. Fish 3. Ear 4. Cockroach 5. Snail 6. Backbone 7. Earthworm 8. Ribs 9. Slithering



# OUR SOLAR SYSTEM

Complete the missing planets and celestial body names in the following layout of the solar system. You can cutout the pictures from the reference sheets.

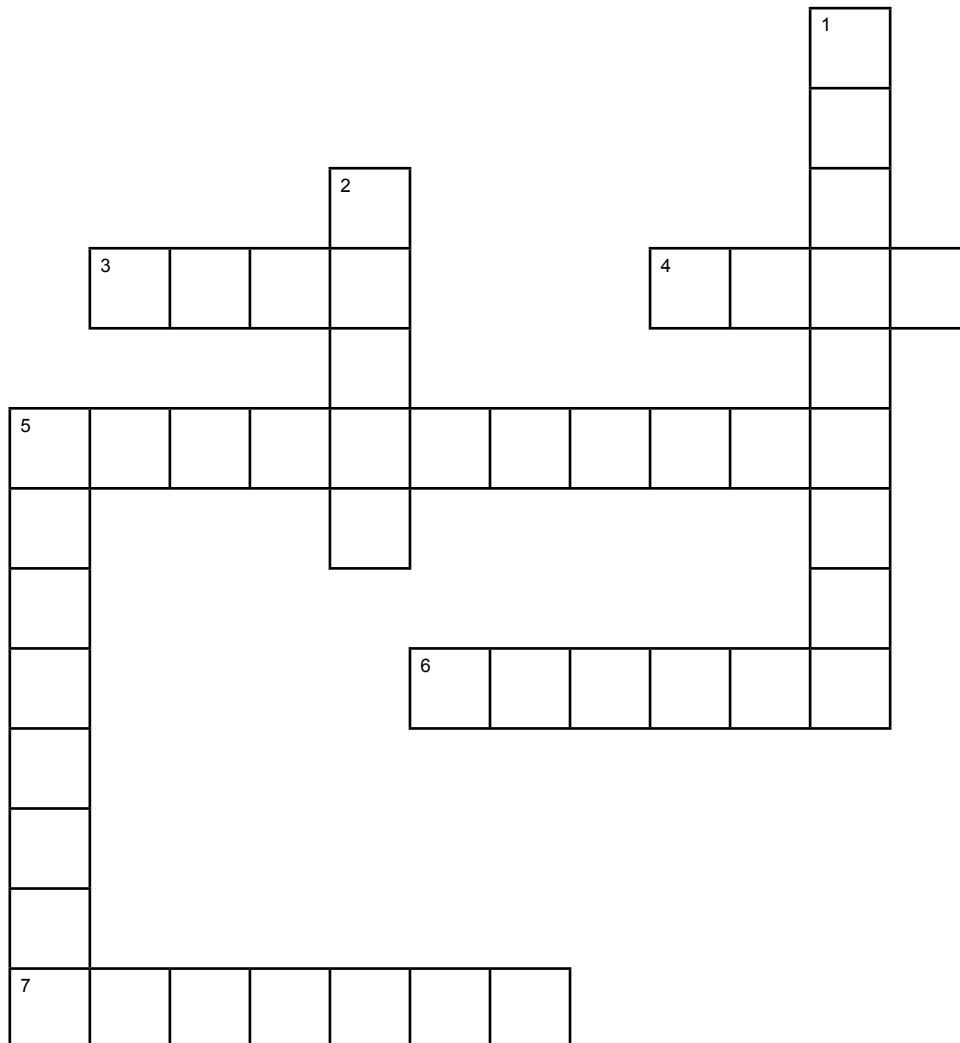




# Crossword



Complete the below given crossword.



### Across:

3. The process of removing burr from \_\_\_\_\_ is called combing.
4. Retting is the process of \_\_\_\_\_ stalks in water.
5. Cultivation of the silkworm is known as \_\_\_\_\_.
6. Yarn can be converted into \_\_\_\_\_ by the process of weaving.
7. After harvesting cotton is sent for \_\_\_\_\_, to get the seeds removed.

### Down:

1. Wool and silk are \_\_\_\_\_ fibers, whereas cotton and jute are natural fibers.
2. Cotton grows best in \_\_\_\_\_ soil.
5. The process of conversion of fibers into yarn is known as \_\_\_\_\_.



## Choose and write



skin

body

stomata

excretion

unicellular

reproduction

motor neurons

gills

- a. The process of removing waste from the body is called \_\_\_\_\_.
- b. The process by which an organism produces an offspring is known as \_\_\_\_\_.
- c. Plants absorb oxygen present in the air through small pores called \_\_\_\_\_, present on the underside of the leaves.
- d. Fishes obtain oxygen that is dissolved in water through their \_\_\_\_\_.
- e. Cockroaches breathe through small pores in their \_\_\_\_\_.
- f. Earthworms breathe through their \_\_\_\_\_.
- g. The longest cells in the human body are the \_\_\_\_\_, which run from the lower spinal cord to the big toe.
- h. The organisms made up of a single cell are called \_\_\_\_\_.



## Do as directed



### A. Fill in the blanks.

opaque

straight

inverted

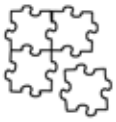
bent

luminous

- a. Objects that emit light are called \_\_\_\_\_.
- b. Light can travel through a \_\_\_\_\_ tube.
- c. A pinhole camera is based on the principle that light travels in \_\_\_\_\_ lines.
- d. The image formed by a pinhole camera is \_\_\_\_\_.
- e. Whenever an \_\_\_\_\_ material comes in the path of light, shadows are formed.

### B. State whether the following statements are true or false.

- a. Shrubs have hard, bushy, and woody stems.
- b. The plants that produce flowers are called non-flowering plants.
- c. The skull is the bony framework of our chest.
- d. Motion and rest are not relative to each other.
- e. A circuit is said to be closed when the continuity has been broken by an interruption in the path of current flow.



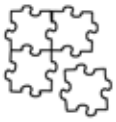
# Word search



Fill in the blanks with appropriate words. Now find the words in the below grid.

- a. The path for an electric current to flow is called an \_\_\_\_\_ circuit.
- b. The metal cap of an electric cell is a \_\_\_\_\_ terminal.
- c. Things that run on electricity have electric \_\_\_\_\_ passing through them.
- d. An electric cell produces electricity from the \_\_\_\_\_ stored inside it.
- e. An electric cell consists of two \_\_\_\_\_.
- f. Materials that allow the electric current to flow through them are called \_\_\_\_\_.
- g. The materials that do not allow the current to pass through them are called \_\_\_\_\_.
- h. \_\_\_\_\_ is the best conductor of electricity because it contains a higher number of movable atoms.

t	a	x	x	q	q	q	f	k	w	x	q
e	g	h	i	z	j	o	s	d	c	h	i
r	p	u	e	b	n	s	m	o	u	k	n
m	i	o	s	i	l	v	i	r	r	h	s
i	t	s	x	j	y	s	z	z	r	u	u
n	q	a	f	c	h	m	q	l	e	p	l
a	e	l	e	c	t	r	i	c	n	x	a
l	b	s	t	a	k	z	t	d	t	a	t
s	p	o	s	i	t	i	v	e	m	p	o
h	o	c	h	e	m	i	c	a	l	s	r
n	k	h	v	x	a	m	q	k	e	s	s
o	l	s	r	o	t	c	u	d	n	o	c



## Do as directed



### A. Match the terms with their explanations.

- |                   |   |
|-------------------|---|
| a. Open Circuit   | Works on the electricity produced by electric cells                           |
| b. Power Stations | Current passes with good conductivity throughout                              |
| c. Electric Torch | Generates electricity   |
| d. Closed Circuit | Continuity has been broken by an interruption in the path for current to flow |

### B. Answer in one word only.

- a. Name the attractive and colored part of a flower which helps to attract insects for pollination.

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- b. Name the animal that moves in s-shaped loops.

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- c. Name the structure built on rivers to store or hold water to prevent floods.

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- d. Name the region of an object where a magnet exhibits its magnetic influence.

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- e. Give an example of an object that does not cast a shadow.

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## Fill and complete



Fill in the blanks with different names of satellites used of the world. Use the help box given below.

1. \_\_\_\_\_ was the first satellite launched.
2. \_\_\_\_\_ is the most common known satellite which is used for meteorological predictions.
3. \_\_\_\_\_ satellite is used for high latitude communications.
4. \_\_\_\_\_ & \_\_\_\_\_ are the two major satellites.
5. \_\_\_\_\_ satellite used for navigation.
6. \_\_\_\_\_ satellite used for images of earth.

**Help box:**

**Geosynchronous satellites, navstar, Russia, Polar orbits,  
natural, manmade, IKONOS**



## Choose and circle



Choose the correct answer from the options given here and circle it.

1. A substance made up entirely of single type of atom is which of the following?  
a. Compound      b. Enzyme      c. Mixture      d. Elements
2. The smallest unit of any element is which of the following?  
a. Atom      b. Compound      c. Molecule      d. Enzymes
3. Different elements are chemically bonded together in \_\_\_\_\_  
a. compounds      b. elements      c. mixtures      d. molecules
4. The compound  $C_6H_{12}O_6$  contains how many atoms of oxygen?  
a. 4      b. 6      c. 12      d. 24
5. Fluorine is represented by which of the following chemical symbols?  
a. F      b. Fe      c. Fi      d. Fl
6. When a chemical bond is broken, what is released?  
a. Water      b. Energy      c. Salt      d. Oxygen
7. When an atom becomes a compound, a \_\_\_\_\_ forms.  
a. bond      b. electron      c. neutron      d. oxygen



## Identify and write



Symbols of chemistry are used of the world. Write the full form of the following:

1. HCl

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2. NaCl

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3.  $\text{H}_2\text{SO}_4$

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4. Fe

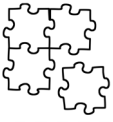
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5. Kr

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6. NaOH

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## Scrambled words



Solve the following scrambled words.

1. Delnbaca ietd \_\_\_\_\_

2. Bereribi \_\_\_\_\_

3. Eyrnge \_\_\_\_\_

4. Simnaler \_\_\_\_\_

5. Nuitrnste \_\_\_\_\_

6. Iopnsrte \_\_\_\_\_

7. Heaougrg \_\_\_\_\_

8. Vycur \_\_\_\_\_

9. Rstcah \_\_\_\_\_

10. Tmiiansv \_\_\_\_\_

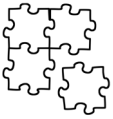


## True or false



**State whether the following statements are true or false:**

1. Yarn is made from fibers. \_\_\_\_\_
  
2. Spinning is a process of making fibers. \_\_\_\_\_
  
3. Jute is the outer covering of coconuts. \_\_\_\_\_
  
4. The process of removing seed from cotton is called ginning. \_\_\_\_\_
  
5. Weaving of yarn makes a piece of fabric. \_\_\_\_\_
  
6. Silk fiber is obtained from the stem of a plant. \_\_\_\_\_
  
7. Polyester is a natural fiber. \_\_\_\_\_



# Word search



Find the hidden words in the word maze on the theme of fabric and where they come from.

R	V	P	H	X	T	L	R	Z	Z	J	P	H	S
C	O	T	T	O	N	B	A	L	L	S	S	B	P
C	M	R	Z	V	V	G	T	J	H	D	J	J	I
Q	H	K	N	Y	Y	K	O	K	T	H	Q	D	N
K	L	A	U	T	P	I	T	Z	D	Z	Z	D	N
D	N	L	R	Y	X	E	P	L	Y	Z	S	J	I
H	R	I	F	K	W	B	F	C	V	D	H	L	N
A	A	H	T	P	H	E	M	I	J	G	Y	E	G
N	Z	O	I	T	H	A	A	A	B	Q	Q	X	J
D	D	E	Q	C	I	Q	N	V	C	E	U	J	G
L	N	L	X	A	K	N	B	H	I	Y	R	S	W
O	V	V	S	N	M	Y	G	W	H	N	L	O	W
O	C	O	T	T	O	N	W	O	O	L	G	H	G
M	F	A	B	R	I	C	Q	N	K	I	X	R	G

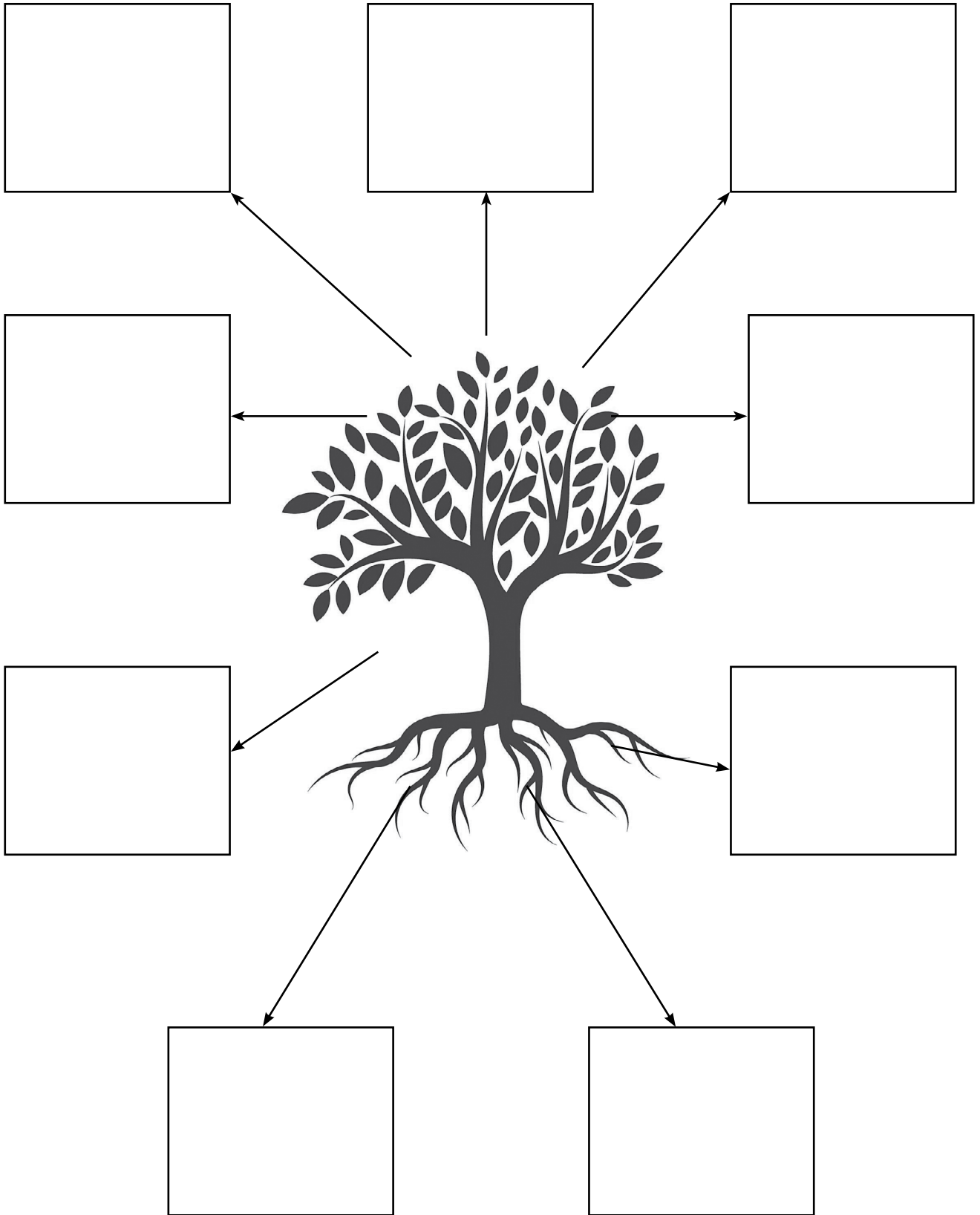


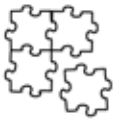


## Think and write



List the benefits of a tree in the boxes given below.





# Word search



## Fill in the blanks.

ribcage                  thigh                  joint                  organ                  osteology  
 movement              ligament              cartilage              locomotion

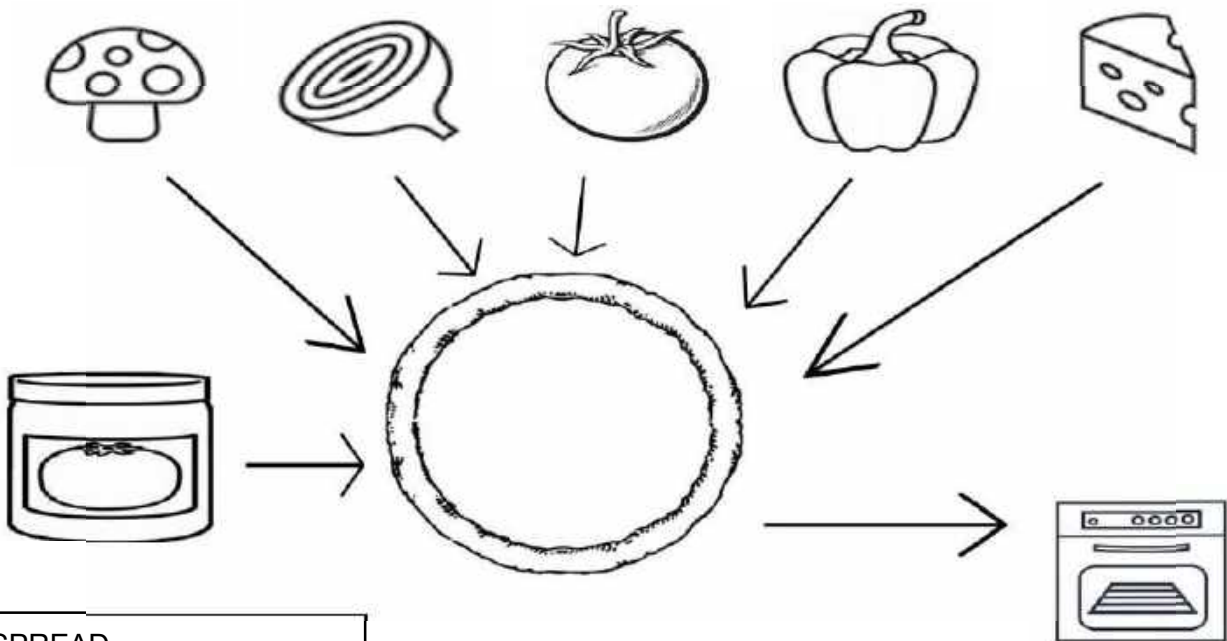
- A group of organs interacting together form an \_\_\_\_\_ system.
- The longest bone of human body is present in the \_\_\_\_\_.
- When the living organism moves a body part with a change in position, it is known as \_\_\_\_\_.
- The study of the structure and function of bones and skeleton is called \_\_\_\_\_.
- The \_\_\_\_\_ is an arrangement of bones present within the chest region.
- The place where two bones meet is called a \_\_\_\_\_.
- A strong tissue that connects two bones to form a joint is called \_\_\_\_\_.
- Bones are covered at the ends by a tough elastic tissue called \_\_\_\_\_ which makes the ends of bones smooth and reduces the friction between bones during \_\_\_\_\_.

w	n	g	v	o	r	g	a	n	l	t	s
i	c	r	j	g	w	q	q	j	o	l	p
u	q	w	i	d	t	a	m	o	s	o	p
z	u	w	a	b	w	g	j	i	t	c	i
t	l	t	z	y	c	p	e	n	e	o	h
n	h	y	m	s	t	a	f	t	o	m	f
e	g	e	p	a	u	r	g	p	l	o	l
m	v	m	i	w	p	f	q	e	o	t	a
a	o	z	v	g	i	o	f	c	g	i	a
g	x	u	r	m	h	m	s	x	y	o	a
i	c	a	r	t	i	l	a	g	e	n	u
l	v	n	m	o	v	e	m	e	n	t	h



# KITCHEN EXPERIMENTS

The gooey science of melting cheese. Let's make a Pizza and find out why cheese melts.



Grill in oven for 5 -7 minutes

SPREAD
SAUCE
CHOP
MUSHROOMS
ONION
TOMATO
CAPSICUM
GRATE
CHEESE

Cheese is made up of a network of proteins, like many tiny cages, surrounding bits of fat and water. When cheese heats up, the fat turns from solid to liquid.



# KITCHEN EXPERIMENTS

What makes Fizzy Drinks FIZZY ?



Fizzy Drink



Have you noticed that bubbles only appear in a fizzy bottle of soda AFTER you open the bottle?



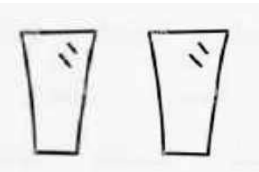
3 cups of Soda

Raisins

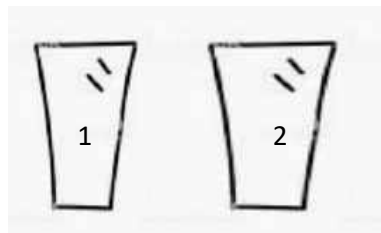
Dried Cranberries

2 Tall glasses

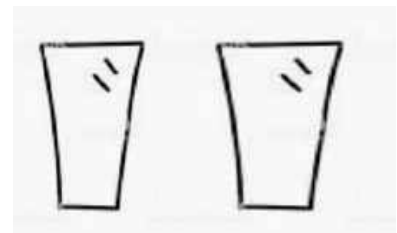
Clean Marbles



Pour 3/4 Soda in both the glasses



Glass 1 : Hold marble 1 inch above the surface.  
Glass 2 : Hold Raisin /Cranberry 1 inch above the surface.



Let go of the marble and raisin at the same time.  
Observe what happens for 30 seconds.

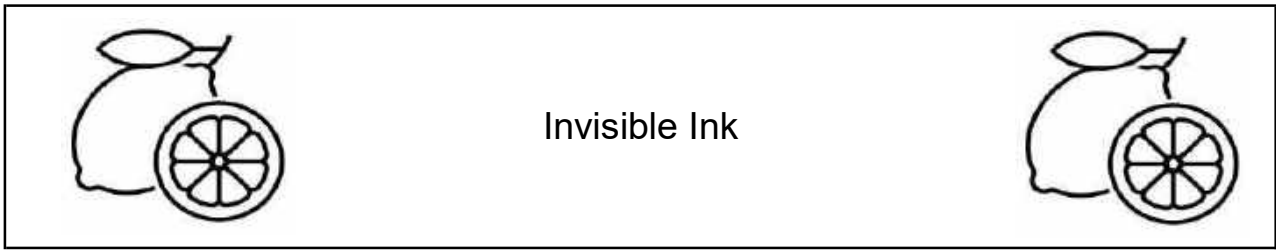
Think & write down your observations while doing this experiment.

The bubbles in soda are made up of Carbon Dioxide gas, and it needs place to become a bubble, called a nucleation site. The wrinkly raisin has more nucleation sites than the marble. The gas is used up more quickly when there are more nucleation sites.



# KITCHEN EXPERIMENTS

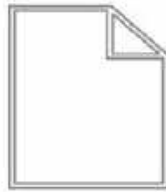
How to make Invisible Ink with lemons



Lemon



Light Bulb



Paper



Brush

Squeeze Lemon and collect the juice.



Apply ink on a stick or paintbrush.



Write on paper.



Allow it to dry.



Read your message.



Hold paper up to a light bulb.

The writing turns brown because the weakened paper burns/darkens before the rest of the paper.



# KITCHEN EXPERIMENTS

## Densities at play!



Let's observe the effect of liquids of different densities.



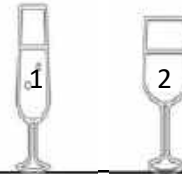
Water



Oil



Food color



Two glasses



Fork



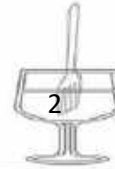
Fill with water almost to the top.



Pour 2 tbsp. oil into other glass.



Add few drops of food color.



Stir oil and color with a fork.



Pour oil and color mixture.

Watch the food coloring will slowly sink in the glass, resembling fireworks.

Think & write your observations while doing this experiment.

Oil is less dense than water, so the oil will float at the top of the glass. As the colored drops sink to the bottom of the oil, they mix with water. The color diffuses outward as the heavier colored drop falls to the bottom.