



**SCIENCE**

**STANDARD THREE**

**TERM II**

## What these **Icons** stand for!



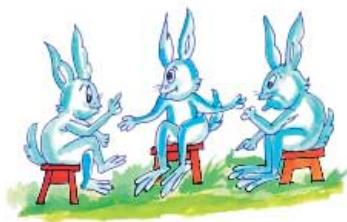
Shall we classify!



Activity / Let us do !



Let us collect !



Let us discuss !



Let us think!



Let us write.



Let us draw/colour.



Let us find!



Fact.

# 1. HEALTHY FOOD



**Teacher :** Yesterday we went to a beautiful Park.  
How did you feel?

**Students :** Madam, yesterday's trip was enjoyable and very useful.

**Teacher :** Mugila, you look tired today. What did you have for your breakfast?

**Mugilan :** I had chips and pizzas.

**Vaigunth :** Madam, he loves to eat pizza, burgers, noodles, chips, and murukku.

**Teacher :** Mugila, don't you like fruits and vegetables?

**Mugilan :** Fruits! Vegetables! I don't like them at all.

**Teacher :** Children! Are you all of same taste like Mugilan? Okay, now tell me what did you eat this morning?



S. No.	Name	Breakfast	Ingredients
1.	Dheepak	Idly, Sambar	Rice, Blackgram
2.			
3.			
4.			
5.			

Let us write:



Most of us eat \_\_\_\_\_.

Ingredients of the food \_\_\_\_\_.

The food you like to eat \_\_\_\_\_.

Items you can eat without cooking \_\_\_\_\_.

Food we must take in our daily life





Curd

Milk

Butter



Meat

Fried fish

Egg



Groundnut Oil



Sunflower Oil



Sesame Oil

We get these food from plants and animals. They give us energy, help us to grow and protect us from various diseases.

Tabulate the food items you eat

in the column given below

S. No.	Food from plant	Food from animal
1.	Rice, Wheat	Egg
2.		
3.		
4.		
5.		



Do we eat food just for taste and hunger? Food contains different nutrients that help the body in different ways. Healthy food has...

- energy producers like carbohydrates, fats
- body builders like proteins
- body regulators like minerals, vitamins and water



Tapioca



Corn



Ragi



Potato



Rice

Carbohydrates give energy instantly



Wheat

Proteins help us to grow.



Lentil



Chick pea



Green gram



Fish



Black gram



**Fats give energy and strength**



Curd



Butter

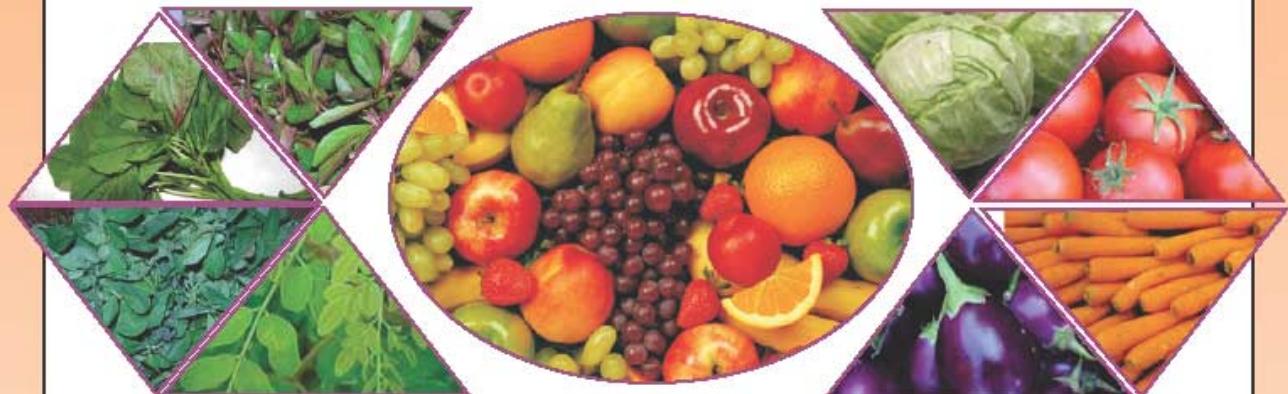


Ghee



Oil

**Vitamins and minerals protect us from diseases**



Carbohydrates, proteins, fats, vitamins and minerals are the nutrients present in our food. Water also plays a vital role.

Are we eating healthy food? Will it improve our health?

**Shall we collect !**



Complete the table below with food you have eaten for a week.

Name of the Student: \_\_\_\_\_

Days	Breakfast	Lunch	Dinner
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			



**Shall we classify ?**



**Tick the nutrients present in the following food items.**

Food item	Carbo hydrates	Proteins	Fats	Vitamins	Minerals
					
					
					
					
					
					
					
					
					

**Let us discuss !**



- Discuss about various nutrients present in your food based on the tabulation done above.



### Facts



- Don't overcook the vegetables. They lose the nutrients.
- Vitamins and minerals are lost when we fry our food.

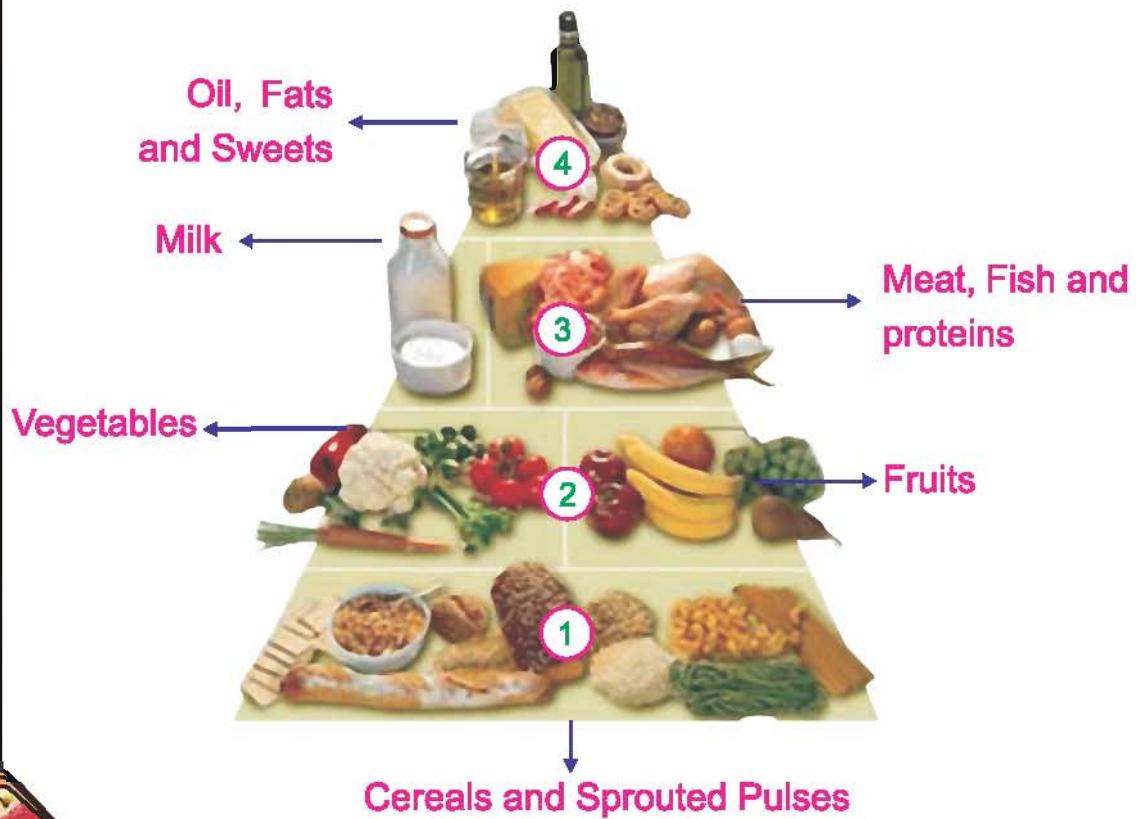
### Balanced diet

The food taken by an individual should contain correct proportion of nutrients according to his age and work. A balanced diet is diet that contains adequate amounts of carbohydrates, proteins, fats, vitamins and minerals.

### Which is the balanced diet?



Food pyramid

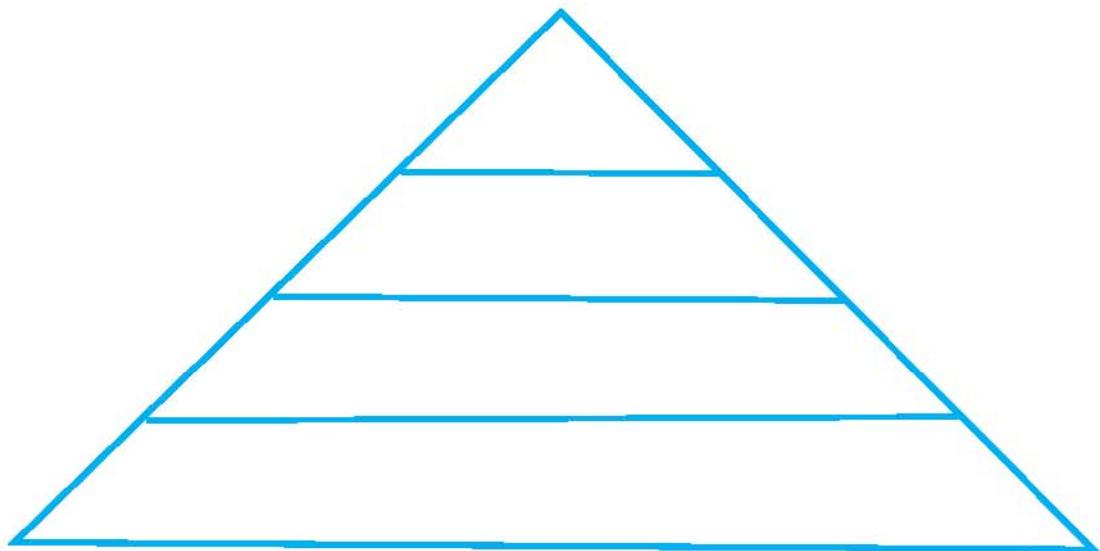


The bottom part of the pyramid contains food that you should take more in quantity. The two middle parts of the pyramid contains food that you should take moderately. The top part of the pyramid contains food that you should take less quantity.



### Let us classify !

Classify the food items you had based on the nutrients in the pyramid.



#### Facts



- Rice loses its nutrients when we polish it.
- Milk consists of carbohydrates, proteins, fats, vitamins and minerals.



Let us think!

Is the food you had yesterday, a balanced diet?

#### Food items to be avoided :

Burger, pizza, chocolate, tin and canned foods, soft drinks are not good for our health.



## Food items to be included :

Milk, curd, carbohydrates, pulses, fruits, vegetables, greens, egg and fish. These strengthen our body.

### Activity :



1. Prepare an album with pictures of sprouted cereals and pulses.
2. Sprout green gram, millet and chick pea (chenna) at home. Eat and enjoy it.

### Different places ..... Different diet



#### Tamilnadu

We like rice, vegetables, greens, payasam etc.



#### Kerala

We like appam, puttu, coconut, fish, bengal gram etc.



#### Tribes

We like honey, fruits, tubers etc.



#### North Indians

We like chappati, pulav, biriyani, sabji etc.



#### China

We like noodles, soup, sea food etc.



## To protect our Health...

- An adult should drink **2.5** litres of water daily.
- Wash fruits and vegetables thoroughly before eating them raw.
- The seasonal fruits and vegetables like gooseberry, carrot, lady's finger, cucumber, guava, papaya and watermelon protect our health.
- The skin of fruits and vegetables are rich in nutrients.

## Who is he?



Louis Pasteur

The method of preserving milk called pasteurization was discovered by him.

### Evaluation:

#### a. Let us match

1.



Butter



Ghee

Proteins

2.



Carbohydrates

3.



Fats



**b. Let us connect using lines:**

- |    |               |          |
|----|---------------|----------|
| 1. | Carbohydrates | obesity  |
| 2. | Proteins      | immunity |
| 3. | Fats          | growth   |
| 4. | Vitamins      | energy   |

**c. List the names of the greens found in your area.**



**d. Activity**



Divide the students into five groups. With the help of teacher prepare and present a puppet show on the importance of vegetables, fruits, greens, cereals and pulses.



**e. Let us write.**

- |                     |       |                          |
|---------------------|-------|--------------------------|
| 1. Sugar is a       | _____ | (protein / carbohydrate) |
| 2. Can be eaten raw | _____ | (potato / cucumber)      |
| 3. Rich in protein  | _____ | (pulses / vegetables)    |
| 4. Rich in vitamins | _____ | (greens / curd)          |
| 5. Instant strength | _____ | (carbohydrate/fat)       |





### f. Let us find out!

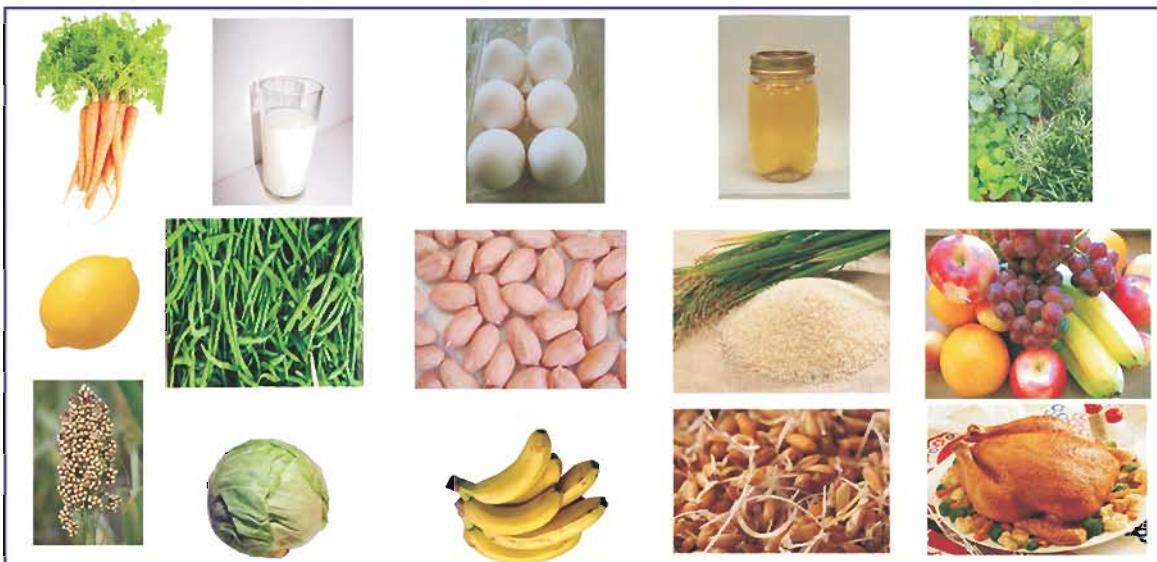
1. I am orange in colour you can eat me without cooking.
2. I am pale in colour and mostly served as chips.
3. I am green in colour you can eat me without cooking.
4. I am red in colour I add taste to food.

(Tomato, Carrot, Potato, Lady's finger, Beans)



### g. Shall we classify!

Classify the nutrients:



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Carbohydrates	Proteins	Fats	Minerals	Vitamins



### **h. Riddle part!**

I am yellow in colour. I am used as medicine to cure cuts and wounds. I am one of the most important ingredients in daily food due to my antiseptic property. Think and tell me who I am.

### **i. Let us think!**



- What can be done to get the nutrients fully from the legumes and pulses?



### **j. Let us mix and taste**

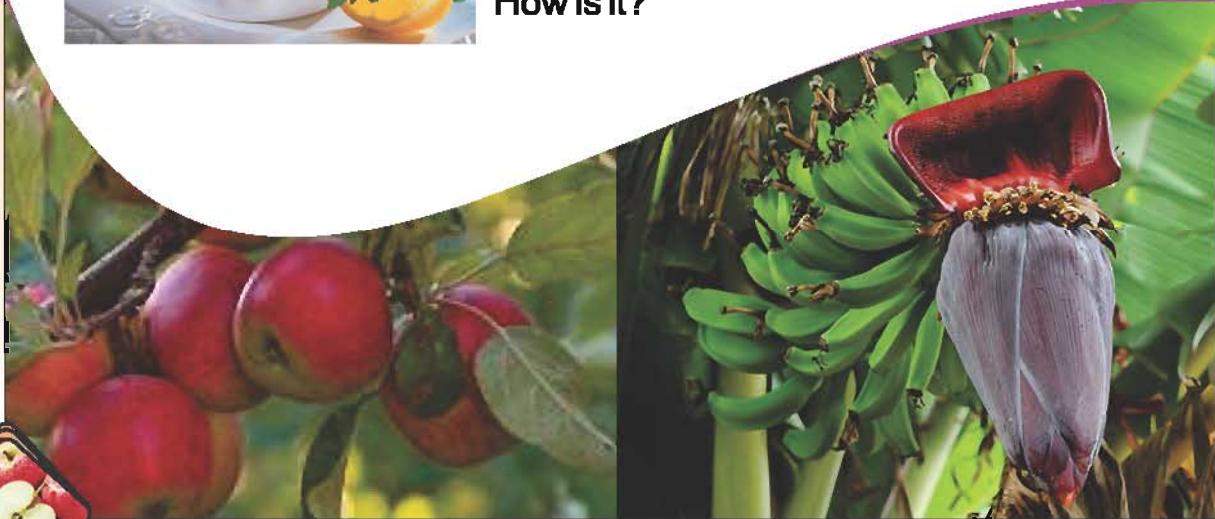
We can eat raw...



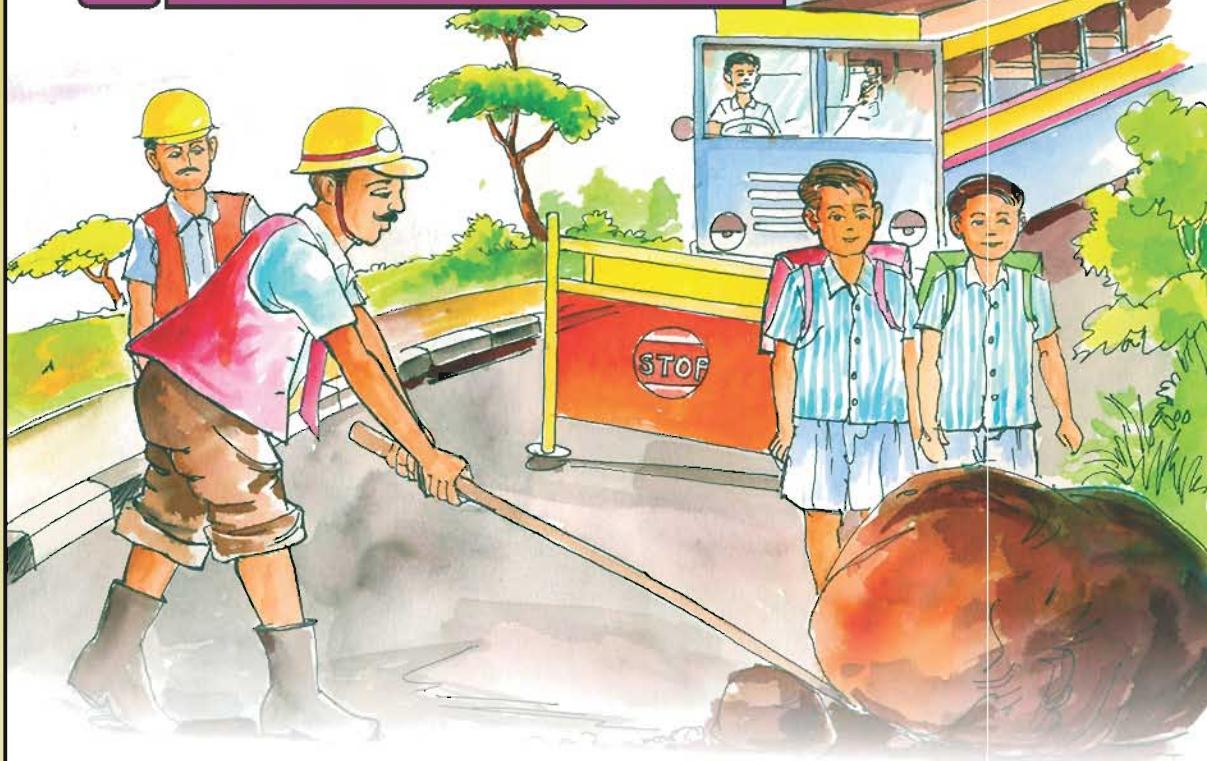
Carrot, tomato, cucumber, beetroot, sprouted pulses, lemon, curry leaves, salt , pepper.



Ask each student to bring one vegetable, wash them, cut them into pieces. (with the help of an adult) Mix them with salt and pepper in a bowl. Let us eat. How is it?



## 2. SIMPLE MACHINES



The children were returning home from school. They saw workers using a crowbar to remove a huge rock lying on the road. They wondered how it would be possible to move such a huge rock with a small iron rod. One end of the crowbar was inserted under the rock. A small stone was kept under the crowbar. When the other end of the crowbar was pressed down, the rock moved! The children were thrilled.

- ◆ A push or pull which stops or moves an object is called force.
- ◆ An object which helps us to do work easily is called a machine.  
(e.g.) lever.
- ◆ Lever helps to transfer the force applied at one end to the other end. It also changes the direction of force.



- ◎ The point where the crowbar touches the small stone is called the **fulcrum**.
- ◎ The object which is moved is called the **load**.
- ◎ The force given at one end is called the **effort**.

Based on the position of **fulcrum**, levers can be classified into three types.

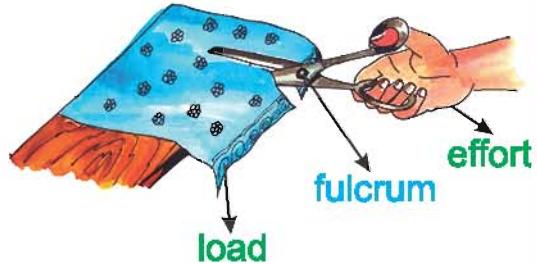
### First order lever

(e.g. Scissors)

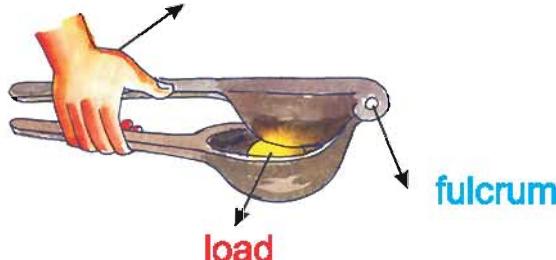
Force applied at handle - **Effort**

Cloth which is cut - **Load**

Centre point - **Fulcrum**



**effort**



### Second order lever

(e.g. Lemon squeezer)

Handle – **Effort**

Lemon (Centre) - **Load**

Opposite end - **Fulcrum**

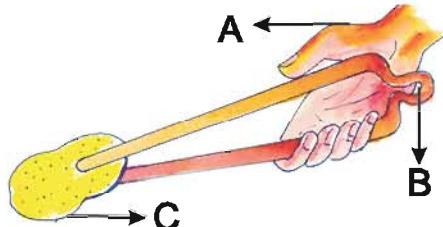
### Third order lever

(e.g.) "Appala iddukki"

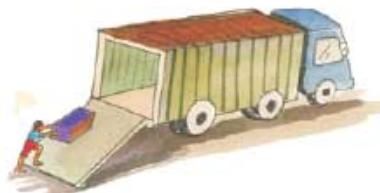
**Effort** - \_\_\_\_\_

**Load** - \_\_\_\_\_

**Fulcrum** - \_\_\_\_\_



Some simple machines also help us to do the work easily.



Inclined plane



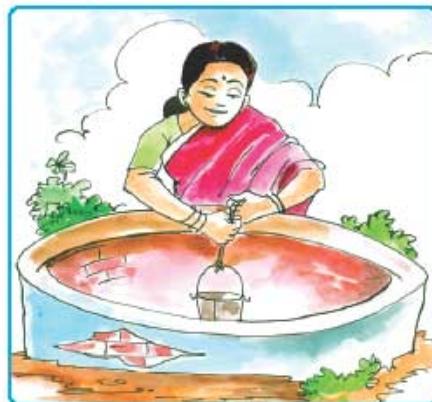
Screw jack



Wedge



Picture – 1



Picture – 2

In the first picture, a pulley is used to draw water from the well. In the second picture water is drawn without the use of pulley. Which is easy method? Why?

Can you write some other uses of pulley?

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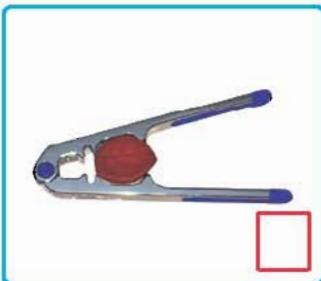
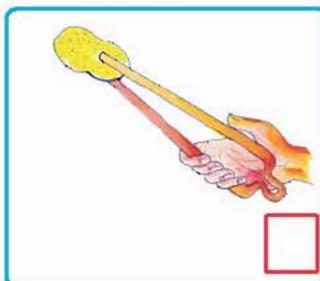
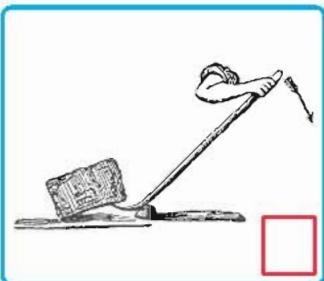


Shall we classify?



Classify the order of the lever

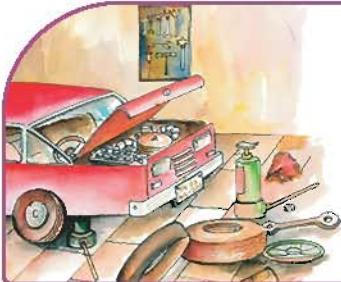
Just write - First order-1, Second order-2, Third order-3



Let us find out!



Write the name of the tools and machines given below :



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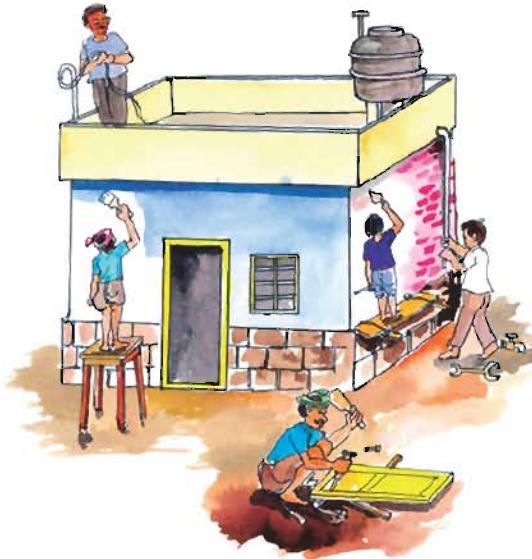
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Scissors, Spade, Wedge, Sickle, Axe, Needle, Hammer, Screw  
Driver, Spanner, Saw, Nail.



**Shall we classify!**

**Look at the picture and answer the following:**



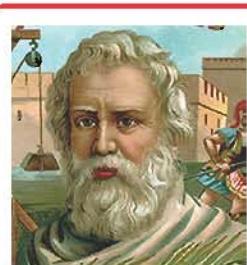
**1. What is the work they are all involved in ?**

**2 . Tabulate the tools used by them.**

Worker	Work	Tool

( The teacher may take the students to a construction site and explain.)

**Who is he?**



**Archimedes**

**He defined the principle of levers**



**Evaluation :**



**a. Let us find!**

Name the simple tools hidden below :



**b. Let us think!**

Can you write the uses of following tools?

Name of the tool	Uses



**c. Let us write:**



Write down the names of other tools you know.

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**d. Let us find!**



This is a \_\_\_\_\_ type of lever

Load \_\_\_\_\_

Fulcrum \_\_\_\_\_

Effort \_\_\_\_\_

Name of the tool \_\_\_\_\_

Used in \_\_\_\_\_



**e. Double matching**

**Tools**

1. Tongs
2. Hoe
3. Scissors
4. Pulley
5. Sickle

**Uses**

- |                     |  |
|---------------------|--|
| harvest             |  |
| to draw water       |  |
| to hold hot vessels |  |
| to cut clothes      |  |
| to remove weeds     |  |

**Used in**

- |              |  |
|--------------|--|
| garden       |  |
| textile shop |  |
| well         |  |
| field        |  |
| kitchen      |  |



f. Draw or paste a picture of simple machine used in your daily life.



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## 3.

## HEALTHY FOOD HABITS



There was a tug-of-war in our school today. The third standard students were so excited. The Physical Education Teacher divided them into two groups. Xavier led one team and Barath led the other team. The Teacher blew the whistle. Both teams pulled the rope with their full strength. Xavier's team won the event. The teacher congratulated the team and said that they won the event because of regular practice.

Thanking the teacher Xavier said, "We won the match not only because of regular practice but also because of our healthy food habits. We drink milk every day. We also eat eggs, fish, meat and vegetables along with rice and wheat".





These food items give us energy to play, work and stay active throughout the day.

We eat very little chocolates, ice creams and sweets. We do not eat food sold open on the streets.



**Activity**

Based on the given example, try to complete the preparation of remaining food items.

**Banana  
Milk Shake**

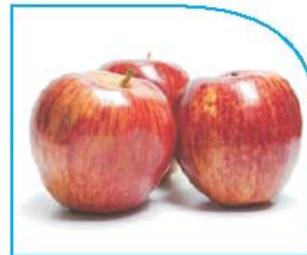


**Papaya jam**

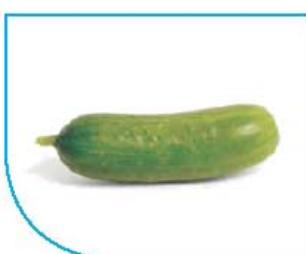
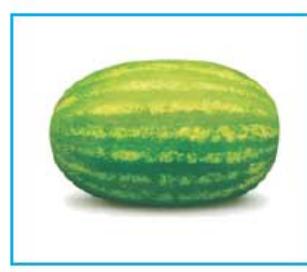


**Lemon Juice**



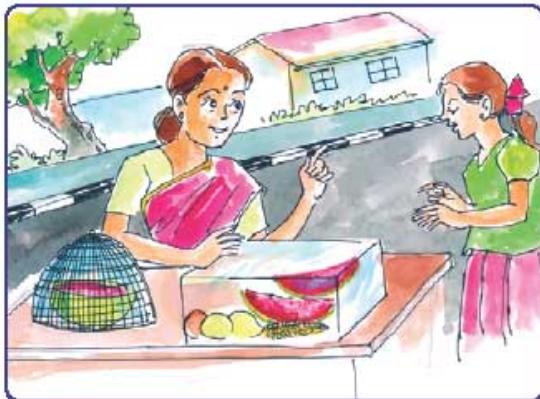


We never say no  
to fruits,  
vegetables and  
sprouted cereals  
and pulses. They  
help us to prevent  
diseases.



**Let us find!**

**Which is right / Wrong.. Why ?**




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- ◆ We do exercise daily in the morning and evening.
- ◆ We play outdoor games at least for an hour a day.
- ◆ We practise yoga and meditation daily.



## Shall we classify !



Running

Kabbadi



Hop - scotch (stappo)



GAMES

Javelin throw

Volley ball



Carrom

Hockey

Skipping



Tennis

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S. No.	Team Games	Individual Games
1.		
2.		
3.		
4.		
5.		

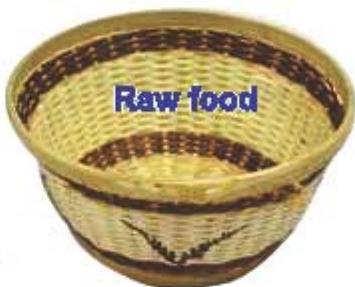


**Activity**

Choose the correct bowl for each item and draw a colour line to match.



Yoga



Raw food

carrot

guava

cucumber

Curd rice

lady's finger

vajrasana

sprouted pulses

padmesana

kabbadi

chocolate

chapathi

fried food

fruit juice

skipping

sundal

fruit salad

volley ball

pizza



Snacks



Healthy food

Sports and games



We watch Television for half an hour after completing our studies.  
We finish our dinner by 8 p.m. and go to bed by 9 p.m.

Our body needs rest. After having a wholesome food and being active during the day, we sleep peacefully. Next day we get up early in the morning for exercise and studies.



After listening to Xavier, Barath's team said, "We watch TV for long hours, we eat fried foods very often. We take a lot of chocolates and ice creams. We don't drink milk much. We drink aerated cool drinks. All this reduced our strength. We will change all these habits, we will follow healthy habits and win the event next time".

### Activity

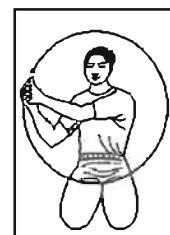
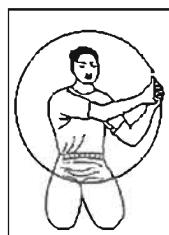
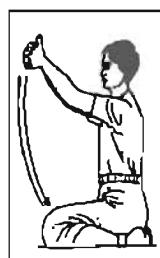
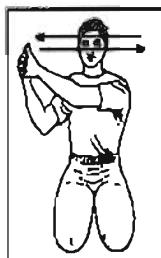
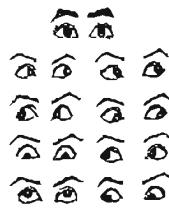
Let us do!



### Eye exercise

(with parent or teacher guidance)

- ◆ Join both the hands, keep the thumbs touching each other as shown in the picture.
- ◆ Bring them slightly below your eye level. The eye should move along with the finger.

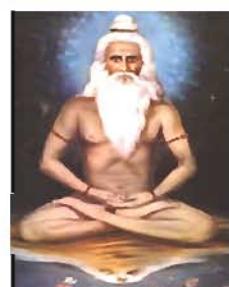


- ◆ Take hands to your sides as shown in the picture.
- ◆ Eye should always be fixed on the thumb nails.
- ◆ During the exercise head can move slightly .

### Eye protection

- ◆ Wash your eyes with clean water every morning.
- ◆ Do not look directly at the sun.
- ◆ Do not read in dim light.
- ◆ Do not lie down while reading.
- ◆ Do not read while travelling in a bus or train.
- ◆ When dust gets into the eyes, do not rub your eyes with hands.  
Wash them with clean water.
- ◆ Eating lot of greens, orange and yellow fruits and vegetables are good for your eyes.
- ◆ Sit atleast 2.5 meters away from TV while watching it.
- ◆ Watch TV with sufficient lighting.

Who is he?



Patanjali Munivar

The Father of Yoga

Donate blood until death!  
Donate eyes after death!

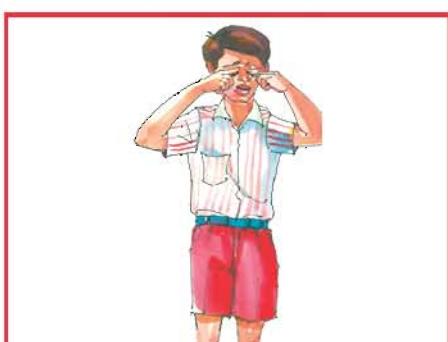
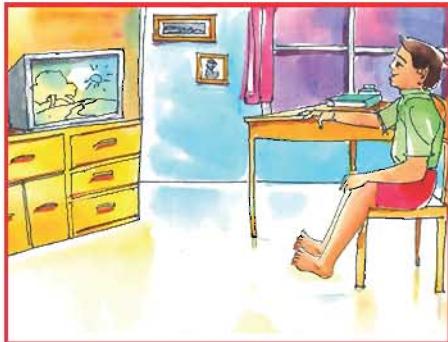


**Evaluation:**



**a. Let us find !**

Which is correct  ? Which is wrong  ?



**b. Let us discuss!**

Mark the answer and discuss with your teacher.

1. I am always active.      Yes  No
2. I cover my face and sleep      Yes  No
3. I get tired after playing.      Yes  No
4. I am always healthy.      Yes  No
5. I go to bed late in the night.      Yes  No
6. I get up early in the morning.      Yes  No
7. I always keep eating.      Yes  No
8. I play in the evening.      Yes  No
9. I eat a fruit daily.      Yes  No
10. I do not eat vegetables.      Yes  No

**c. Make clay models of fruits and vegetables with suitable colours.**

**d. Let us find!**



Tick the right  one and cross the wrong  one.

1. We should wash our hands before eating.
2. We should eat our food very fast.
3. We should eat only at proper time.
4. We should eat lots of ice-creams and toffees.
5. We should use clean vessels for cooking.
6. We should eat food sold on the streets.
7. We should always keep the food closed.
8. We should drink boiled and filtered water.
9. We should not eat fruits.
10. We should eat greens along with our food everyday.



## 4. LET US DO



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- Teacher** : Children, do you all know what we celebrate on November 14?
- Velankanni** : Yes. November 14 is Childrens' day.
- Teacher** : You are right. What day is today?
- Students** : February 28.
- Teacher** : Good. Today is the National Science Day. Let us do some simple science experiments to celebrate it.
- Students** : Yes, Madam.



All things around us are matter. Matter exists in solid, liquid and gaseous states.

**Teacher :** Keep the things you have on the table.

(The following things are kept on the table.)



Air filled balloon



Air filled foot ball



Empty foot ball



Vendors balance



Note books



Water bottles



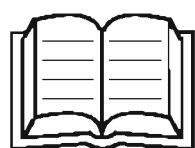
plates



Pencils



Eraser



Book



Empty balloons



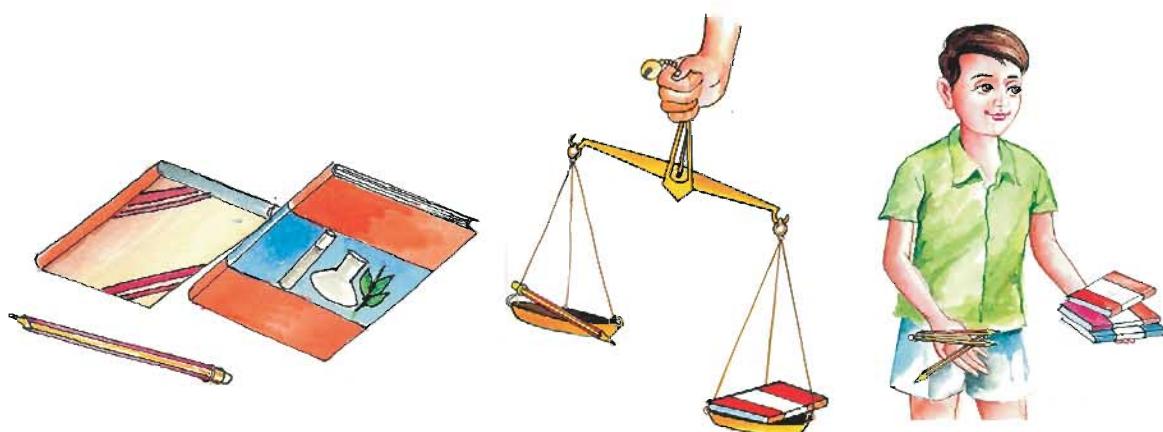
Water tumblers



**Teacher** : Shall we start doing our experiments right away?

**Students** : Yes, Madam.

**Teacher** : Now take your books and pencils. They all have proper shapes. They do not change their shapes. We call these things as solids. Hold the notebook in one hand and pencil in the other. How do you feel?



**Students** : The pencil is light, whereas the book is heavy.

**Teacher** : What else do you observe?

**Students** : They have different shapes.

**Teacher** : Do they flow like water?

**Students** : No, they do not flow.

**Teacher** : These are the properties of solids.

- Solids do not flow.
- Solids have weight.
- Solids have definite shape.
- Solids occupy space.



**Teacher :** Let us take a bottle of water. Pour water out. (A student pours a little amount of water on the floor). What do you see?



**Students :** Water flows on the floor.

**Teacher :** Water is a liquid. It can flow from one place to another. Let us pour the same amount of water on to a plate and into a tumbler. We see that water takes the shape of the container.



**Teacher :** I am going to place an empty water bottle on one pan and a water filled bottle on the other pan of the balance. What happens?

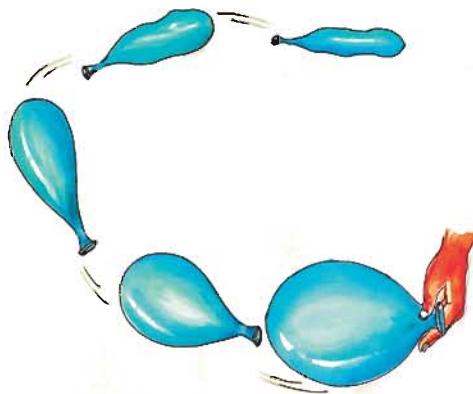


**Students :** The pan with the filled water bottle comes down and the one with the empty bottle goes up. This shows that water has weight.



- Liquids flow.
- Liquids have weight.
- Liquids have no definite shape.
- Liquids take the shape of the containers.

**Teacher :** Let us blow a balloon and release it from our hand.  
See what happens?



**Students :** The balloon falls down as air comes out.

**Teacher :** Could you see the air? Can you hold air as you can hold the solids and liquids?

**Students :** No.

**Teacher :** Let us keep an air filled football on one pan and an empty football on the other pan in the balance. What happens?



**Students :** The pan with the air filled football comes down and the one with the empty football goes up. So we come to know that air has weight.



- \* Gases can flow.
- \* Gases have weight.
- \* Gases have no definite shape.
- \* Gases occupy space.

**Teacher :** We celebrated The National Science Day by doing simple experiments to understand the states of matter. Thank you for your participation.

**Activity :**



**Find and circle the odd one**

1. Fruit juice, Murukku, Chocolate, Idly.
2. Tea, Butter milk, Petrol, Stone.
3. Door, Table, Air, Chair.

**Who is he?**



**Sir. C.V. Raman**

**Evaluation :**



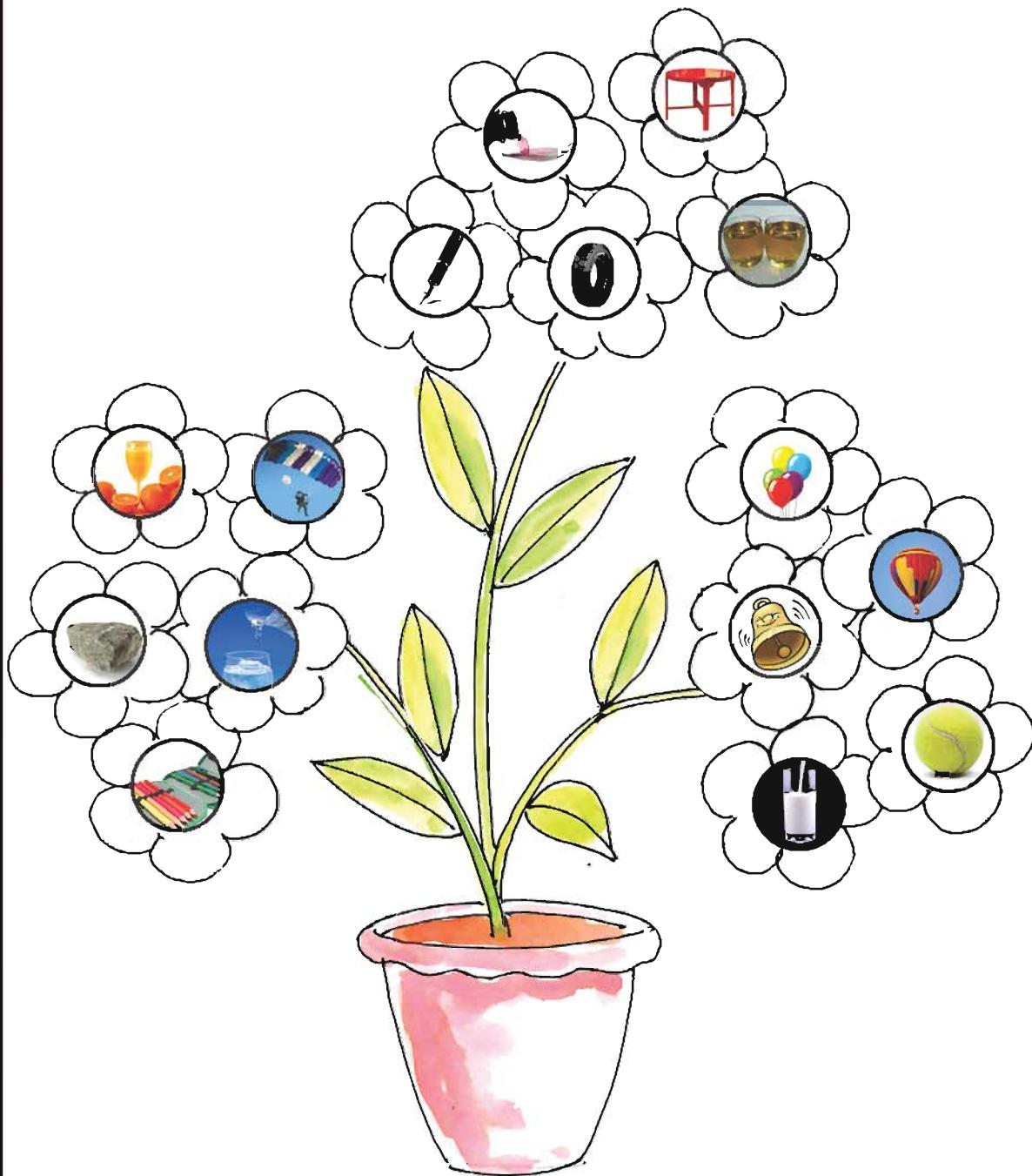
**a. Let us find!**

1. Liquids used for cooking \_\_\_\_\_
2. Solids used for cooking \_\_\_\_\_
3. Liquids used for washing your hair \_\_\_\_\_
4. What is filled in your cycle tube? \_\_\_\_\_



**b. Let us colour**

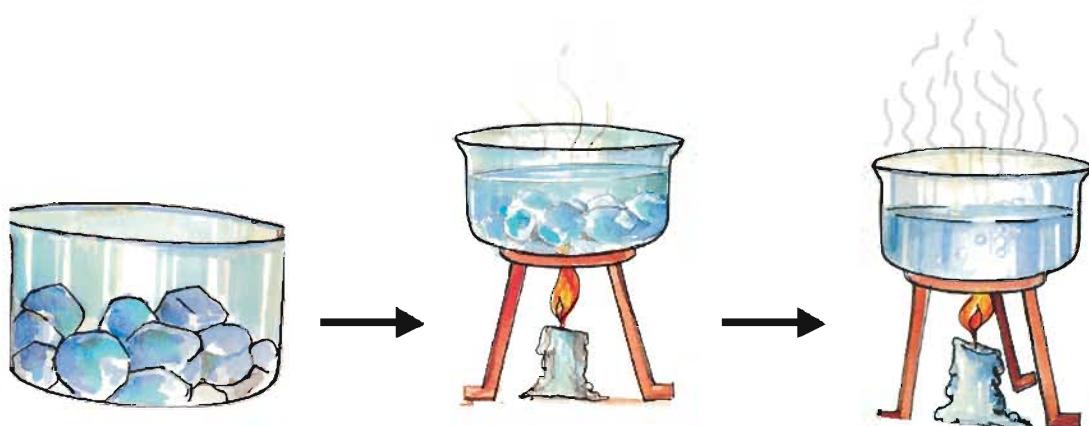
Colour the flowers which have solid objects with red, liquids with violet and gas filled objects with yellow.



c. Compare : Use  or  according to the properties

Matter	Shape	Weight	Flows	Occupies Space
Solid				
Liquid				
Gas				

d. Let us do



Observe the picture and write the result.

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### e. Shall we classify?

- A. Write the names of things you use in your daily life.  
Write the state of matter of those things.

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- B. List the solid and liquid substances in the food you eat.

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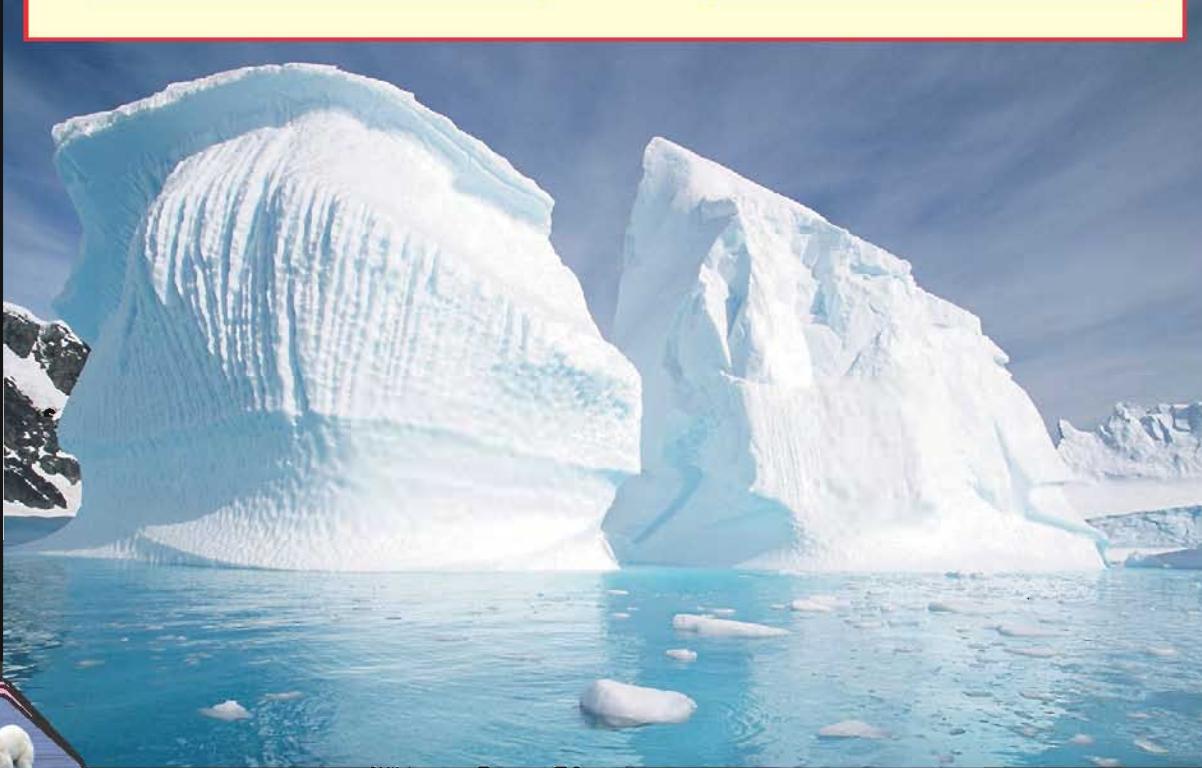
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**'I can, I did'**  
**Student's Activity Record**

Subject :

Sl. No.	Date	Lesson No.	Topic of the Lesson	Activities	Remarks