



Master Lesson Plan

For

Smart Charts

Board	Standard	Subject	Chapter	Language	Reference Link	Creation Date
CBSE	STD V	Mathematics	Smart Charts	English	Smart Charts	2020-08

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Smart Charts

1. MS_Objectives-Smart Charts

OBJECTIVES

Notes to teacher:

This asset lays down the proposed plan for transacting this chapter. It states the asset objectives of the MLP. This asset is for teacher's reference and need not be taught to students.

Students will be able to :

- Observe and draw tabular forms
- Restate the data using tally marks and appreciate the use of tally marks
- Solve questions related to tally marks and tabular form
- Explain the data represented in pie chart
- The data represented in bar graphs and histograms and draw bar graphs for given data
- Solve questions related to types of charts
- Identify different patterns of charts
- Illustrate and draw family tree
- Analyse the data and identify the relationships hidden in the riddles
- Illustrate and draw growth chart
- Correlate different patterns of charts with those they come across in daily life
- Practice nonviolence by short and sweet speech in daily life

Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Main Script	Data Handling	

2. SA_Introduction to Tabular Form

SA_Introduction to Tabular Form

Aim: To collect and represent data in tabular form.

Materials required: Paper, scale, pencil, eraser

Instructions to teacher:

In the previous class -

1. Divide the whole class into groups of 5
2. Give one topic to each group. Topics are
3. Date of birth
4. Marks scored in previous Maths test

5. **Breakfast had in the morning**
6. **Number of days absent at school in the last 1 month**
7. **Mode of transport taken to school from home**
8. **Teacher can give any other topic too which might be of interest to children.**
9. **Children have to collect the required information for all their classmates**

Procedure:

Instructions to children:

1. **Choose a group leader**
2. **Leader will discuss and distribute the work among others in the group equally. Each one will be given a different set of children from whom they have to collect the required information.**
3. **Each child in the group has to write the information on a paper**
4. **Group leader will keep the information collected with him.**

At the beginning of the class:

- **Teacher will choose any one group and ask them for the information collected.**
- **Teacher has to write down the information on the black board one next to the other**

For example:

Title: Marks

Arun 17 Arushi 13 Ayush 21 Bhagya 15 Chaitra 14 Dinesh 20 ...

Questions to children:

1. **What is the highest score?**
2. **How many children scored 20?**

Let children answer these questions.

Explain the difficulty in finding the answers when information is written in this way.

There is a need to represent the information in a better way to find answers for such questions.

- **Teacher will tell the children to draw a tabular column and write all the information collected by them in it.**
- **It is different for each group.**
- **Each group has to do only their tabular column.**
- **Teacher will write down the information in tabular column on the black board.**

Marks	
Name	Marks
Arun	17
Arushi	13
Ayush	21
Bhagya	15
Chaitra	14
Dinesh	20
...	
...	
...	

Children from the other groups will also make tabular columns for the information collected by them.

Date of birth

Name	Birthday

Breakfast

Name	Breakfast

Attendance

Name	No. of days absent

Mode of transport

Name	Mode of transport

Teacher will ask the same questions to children.

- It is easy to find the answers from the tabular column.
- Students will discuss among themselves, frame any 2 questions with the information they have collected and write down the answers.

For example

1. How many children had upma for breakfast?
2. Who was absent for the most number of days?
3. How many children walk to school?

Group leaders from each group have to read out the questions and answers aloud one after the other.

Observation:

Information represented in tabular form is easy to read and interpret.

Result:

Children are able to collect and represent data in a tabular form.

Children are able to analyse the information in the tabular form.

Time to teach	Asset Type	Theme	SubTheme
20 Minutes	Suggested Activity	Data Handling	Counting, Counting

3. MS_Tally Marks

MS_Tally Marks

I am Prashanth. I am in 5th std in Saigurukul school.

What is the information we get from this?

Gender- Male

Name- Prashanth

Class – 5

School- Saigurukul

All this information is data.

The information collected about anything is called **data**. It can be name, number of objects, age, temperature etc.

Example 1

Ravi's father got a lot of mangoes from his farm. He wanted to sell them. He told Ravi and his little brother Raj to keep a count of the number of mangoes sold.

Ravi counted as follows

Ram bought 1 mango

He wrote 1 when they sold 1 mango.

1

Rani bought 1 mango.



He wrote 2 after he struck off 1 when 1 more mango was sold.

1✓ 2

Later Sonu bought 6 mangoes, Ravi struck off 2 and wrote $2+6 = 8$

1✓ 2✓ 8



Raj had a different way of noting it. He wrote a vertical line for every mango sold. For 1, 1 and 6 mangoes sold, he wrote them down as shown below

| | | | | |

This way they noted down till 50 mangoes were sold and found it difficult.

Their father taught them to note down legibly in a simple and easy way using tally marks in tabular form

Name	No. of Mangoes	Tally Marks
Raju	1	
Rani	1	
Sonu	6	

These lines are called **Tally marks**.

Representing data using tally marks

- Each object is represented by a vertical line.
- The first four objects are represented as

1- |

2- ||

3- |||

4- ||||

- The fifth object is represented by four vertical lines and one line across the four lines.

5- |||||

Advantages of using tally marks

- It is easy to represent the data using tally marks.
- Every time we count a number, we need not erase the number we wrote before. Instead we can use tally marks in which we can represent each object by a straight line.
- If there is any change in the count of objects, we can change the data by adding the required number of lines. For example, if the 5th data out of 20 is entered wrong as six instead of eight, we can add just two more lines.

Tally marks help us in keeping count of a number of objects in groups of five. This method helps us in counting a large number of objects quickly.

These are the tally marks for counting objects from 1 to 10

1		6	
2		7	
3		8	
4		9	
5		10	

If Rashmi bought 17 mangoes, how will they represent it?

17- ||||| ||||| ||||| ||

Example 2

Anjappa is a storekeeper in 'Radha Super Market'. He has to allow only 5 people inside the store due to lockdown restrictions during Corona virus pandemic.

He used an easy method to allow the customers inside his store with due precautions. He noted down the number of customers going inside the store in this way

1- |

2- |

3- |

4- |

5- |

He drew the sides of a square one after the other for every customer. The square is complete after 4 customers. For the 5th customer, he drew a diagonal across the square.

This is another way of representing data using tally marks.

Tally marks for numbers 1 to 10

1		6	▧
2	└┐	7	▧└┐
3	└┐└┐	8	▧└┐└┐
4	▢	9	▧▢
5	▧	10	▧▧

If he drew



on a particular day, how many customers came to his store?

22 customers came to his store.

Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Main Script	Data Handling	Tally Marks, Tally Marks

4. QA_Exercise in Tabular Form

Exercise

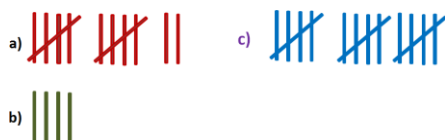
I. Rewrite the given numbers using tally marks

a. 12

b. 4

c. 15

Answer:



II. Match the following

1	3	a	
2	16	b	
3	21	c	
4	19	d	
5	7	e	

Answer:

1 – d

2 – c

3 - e

4 – b

5 – a

III. Answer the questions:

These are the runs scored by Indian cricket team vs New Zealand.

Name	Runs
Rohit Sharma	60
Shreyas Iyer	33
Shivam Dubey	5
Manish Pandey	11
Rahul Sharma	45
Sanju Samson	2

a. Who scored the highest runs?

b. Who scored the least runs?

c. If New Zealand lost by 7 runs, how many runs did they score?

Answer:

a. Rohit Sharma

b. Sanju Samson

c. Total runs scored by Indian team = 156

Since New Zealand lost by 7 runs, they scored 7 runs less.

=156-7 = 149

IV. Represent the following data in tabular form

Natraj pencils-Rs.30, sharpener Rs. 5, eraser Rs.1, glue stick Rs.20, Camlin colour pencils Rs.30, Cello tape Rs.30, Note book Rs.11.

Answer:

Sl.No.	Item	Price(Rs)
1	Natraj pencils	30
2	Sharpener	5
3	Eraser	1
4	Glue stick	20
5	Camlin colour pencils	30
6	Cello tape	30
7.	Note book	11

Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Assessments	Data Handling	Counting, Counting

5. MS_Pie Charts**Pie Charts**

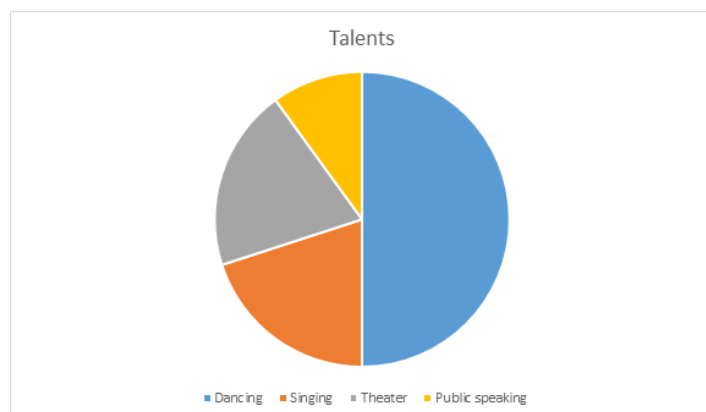
Teacher can start the class with the following example:

Example 1:

There are 30 students in grade 5A. They have to perform in special assembly. Their teacher wants each one of them to participate. She divided the class with group of children who are talented in different skills and collected data as follows

- $\frac{1}{2}$ of them are good at dance
- $\frac{1}{5}$ th of them are good at singing
- $\frac{1}{5}$ th of them are good at theater
- $\frac{1}{10}$ th of them are good at good at public speaking

She represented this data in a circle. She divided the circle into 4 parts and coloured each part with a different colour as shown below



Each colour represents the talents as mentioned above.

This is a **pie chart**. A graphical representation of data is called a chart. This is also known as circle graph.

A pie chart is a circular chart divided into sections.

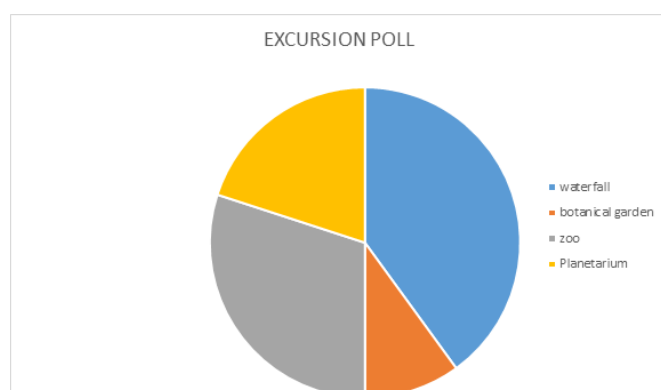
Each section shows the relative size of relevant data.

Advantages of using a pie chart:

1. It is easy to compare parts of a whole.
2. Information can be understood quickly because of the visual presentation.

Example 2:

Children of grade 5 have an annual excursion. To decide the preference of children, teacher discussed with them and collected the information as shown below



Waterfall - 2/5

Zoo - 3/10

Planetarium- 1/5

Botanical Gardens- 1/10

Total no. of students: 30

1. How many children want to go to zoo?
2. Is the number of children who want to go to Botanical Gardens greater than that for waterfall?
3. How many children want to go to Planetarium?
4. If teacher goes by majority wins, which place will be decided for excursion?

Answer:

1. Number of children who want go to zoo is shown by grey colour. It is (3/10)th of the whole. Total number o children is 30,

$(\frac{3}{10})$ of 30 = 9

9 children want to go to zoo

2. No. Number of children who want to go to Botanical gardens is shown by orange colour and is $(\frac{1}{10})$ th of the whole.

$(\frac{1}{10})$ of 30 = 3

Number of children who want to go to waterfall is shown in blue colour and is $(\frac{2}{5})$ th of whole.

$(\frac{2}{5})$ of 30 = 12.

3 < 12

Thus, number of children who want to go to Botanical gardens is less than the number of children who want to go to waterfall.

3. Number of children who want to go to planetarium is shown by yellow colour which is $(\frac{1}{5})$ th of the whole.

$\frac{1}{5}$ of 30 = 6

4. Majority of children is shown by blue colour which is $(\frac{2}{5})$ th of whole.

$(\frac{2}{5})$ of 30 = 12

They want to go to waterfall.

Waterfall is finalized as the destination for excursion.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Data Handling	Pie Chart, Pie Chart

6. MS_Bar graphs and Histograms

Bar graphs and Histograms

Teacher can start the topic with the following example:

Example 1:

Rajesh sir is the sport's instructor in Vidyaniketan school for students of grade 5. He is conducting prelims to decide the distance for running race for Annual Sports meet. He represented the data as follows for 2 minutes:

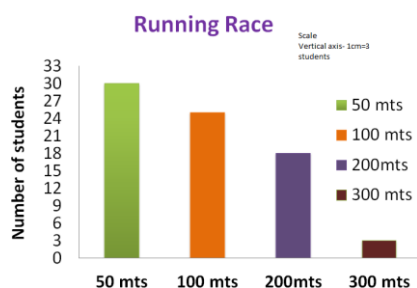
50 m - 30 students

100 m - 25 students

200 m - 18 students

300 m - 2 students

He represented the same data in a different way too as shown below:



This is called a bar graph.

The representation of data in columns by drawing vertical or horizontal rectangles with uniform space between them is called a bar graph.

In the above graph, we get the information of the number of students who can cover different distances in 2 minutes.

After analysis, Rajesh sir decides to keep 100 m and 200 m running races.

Steps to draw a bar graph

1. Draw two lines, one vertical and the other horizontal such that they intersect at right angles.
2. Take equal spaces on the horizontal line to draw the columns.
3. The columns should be of equal width.
4. On the vertical line, make equal divisions to represent the numerical data given.
5. Choose a suitable scale. Here, the scale is 1 cm = 3 students along the vertical line.
6. Give a title to the graph.
7. Colour or shade each bar.

Example 2

Class teacher of 5A recorded the height of all children in their progress report.

She collected the following data for height of children and number of children

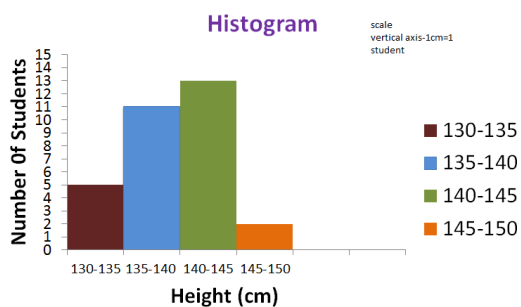
130 cm - 135 cm-----5

135 cm - 140 cm-----11

140 cm - 145 cm-----13

145 cm - 150 cm-----2

She represented the information in a graph as shown below:



This is called a histogram. Histogram is a representation of data using bars of different heights.

It is also drawn as a bar graph but with no gaps in between the bars.

Histograms are used to show continuous data. For example, the first bar shows the number of children whose height is somewhere in between 130 cm to 135 cm.

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Data Handling	Pictographs and Bar Graph and Bar Graphs

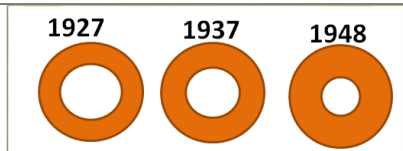
7. IA_Interesting Charts

Interesting Charts -

Donut Charts:

Teacher can start the topic in this way

What do you observe in the picture below?



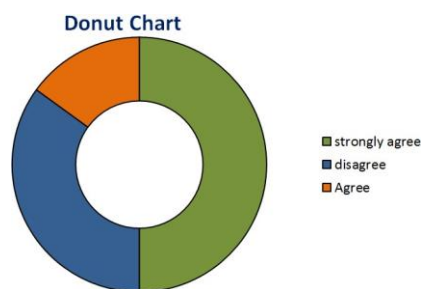
Expected answer: size of the hole has decreased.

These are donuts (sweet vadas). The size of the donut hole has decreased, so you get to eat more donut! This is a way of comparing data.

With any given data, we can draw **donut charts**.

Donut chart is a circular chart with a blank centre. Chart is divided into sectors. Each sector is proportional to the quantity it represents.

For example, this donut chart represents the number of children who do not want a full day school on Saturdays.



Bar graphs:

Teacher can proceed with the following picture:



This is a bar graph drawn by scientist Nicole Oresme in the 15th century. He represented data related to motion of a body. Can you see the bars in these graphs? So, our knowledge of representing data using graphs dates back to 15th century.

Stem and Leaf Plot graph:

Teacher can ask children, what do you see in this picture?



Expected answer: Stem and leaves

Teacher can explain that the stem is common to all leaves.

In stem and leaf plot graph, each data is split into a "*leaf*" (usually the last digits) and a "*stem*" (the other digits). For example, "32" is split into "3" (*stem*) and "2" (*leaf*). The "*stem*" values are listed down, and the "*leaf*" values are listed next to them.

For example:

If these are the marks obtained by students in the recent test:

71, 46, 63, 74, 97, 83, 92, 80, 84 and 95 then the stem and the leaf plot is as shown below:

Marks Obtained			
Stem	Leaf		
4	6		
6	3		
7	1	4	
8	0	3	4
9	2	5	7

Reference:

Bar graph: https://commons.wikimedia.org/wiki/File:Oresmes_diagrams.gif attribute to Blaisus of Parma (Nicholas Oresme)

Tree: <https://pixabay.com/de/illustrations/grafik-palme-palm-baum-meer-3908411/>

Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Interesting Asides	Data Handling	

8. VC_Words can hurt or heal

Words can hurt or heal

Charts are an excellent method of communicating information about data collected visually.

Charts are very effective because they are:

- Brief (occupy less space for representation)
- Easy to understand
- Accurate

In the same way, smart speech is the medium for communicating our ideas and views. So, we should be careful about what we speak. What precautions should we take while we communicate?

- Before you speak, ask yourself the following questions:
 - o 1. Is it necessary? Is it better than saying nothing at all?
 - o 2. Is it accurate (i.e. is it the truth)?
 - o 3. Is it kind?
- Never use harsh words.
- Do not humiliate others and hurt others with your words. No medicine or doctor can heal the wound or injury inflicted through words.

One day, a teacher heard a boy fighting with others and using harsh words. He called the boy and asked him, “why are you so rude and impolite to others?”

The boy said, “I am not rude.”

Teacher said, “I want to tell you something.”

And the teacher continued, “An apple tree with beautiful crisp apples is admired by everyone. They enjoy the beautiful sight of the tree and the sweet apples. Now consider a bush of thorns. We are scared to even touch it because whoever touched a thorny bush knows how painful it can be. So everyone stays away avoiding contact with it. Currently, you are like that thorny bush. You should now think twice about whether you want to be left alone or want to be loved by everyone like the apple tree.”

The boy realised his mistake. He said, “I am sorry teacher. I would rather be an apple tree.”

Children. Always be like an apple tree in life and not like bush of thorns. Talk sweetly with love and do not hurt other by your speech.

“Teach your tongue not to lose its reputation by following the wrong path. Your tongue is capable of raising you to Divine or droop to that of an animal.”

--Sathya Sai Baba, My Dear Students, Vol 5, Ch 2, Mar 9, 1993

Time to teach	Value Type	Value Sub Type	Value Attribute
2 Minutes	Non-Violence		Stories

9. MS_Health Record

Health Record

Teacher can start the class with these questions?

- **Have you seen your photo taken when you were 5 years old?**
- **What is the difference in that photo and yourselves now?**

Let children come up with their answers.

Expected answers:

- **My height has increased**
- **My weight has increased**

Teacher can proceed with the following example

Example 1:

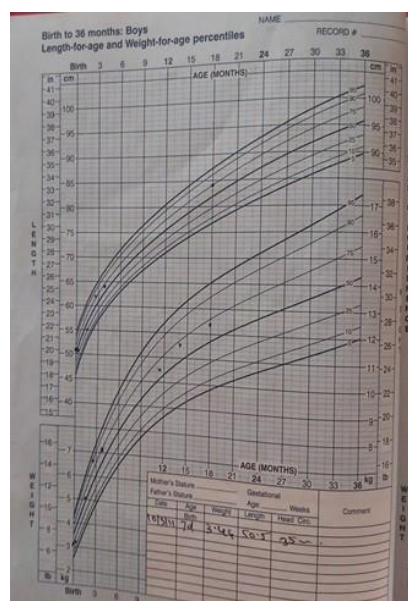
Dev's mother always used to carry a file with her when he went for vaccination.

HEALTH RECORDS				
AGE	VACCINE	DUE ON	GIVEN ON	WEIGHT
BIRTH	BCG	✓ 23.10.04	20/10/04	
	Oral Polio Vaccine - 1st dose	✓	19.10.04	
	Hepatitis B Vaccine - 1st dose	✓		
6 Weeks	DPT- 1st dose	✓ 4.12.04	3/12/04	
	Oral Polio Vaccine- 2nd dose	✓ 4.12.04		
	Hepatitis B Vaccine-2nd dose	✓	1-1-05	
10 Weeks	DPT-2nd dose	✓ + H1B	1-1-05	6.54
	Oral Polio Vaccine-3rd dose	✓	1-1-05	
14 Weeks	DPT-3rd dose	✓ + H1B	1-2-05	
	Oral Polio Vaccine-4th dose	✓	31-1-05	
6-9 Months	Oral Polio Vaccine-5th dose + H1B	✓	1-3-05	7.75
	Hepatitis B Vaccine-3rd dose	✓	18-5-05	9.73
9 Months	Measles Vaccine	✓	7-7-05	10.64
15-18 Months	MMR (Measles, Mumps, Rubella)	✓	18-3-06	10.54
	DPT- 1st booster dose	✓	16-5-06	11.64
	Oral Polio Vaccine- I booster	✓		
4 Years	DPT- 2nd booster dose	✓	17/10/07	
	Oral Polio Vaccine- II booster	✓		
10 Years	TT (Tetanus) - 3rd booster dose	✓	3/9/16	
	Hepatitis B Vaccine booster dose	✓		
15-16 Years	TT (Tetanus) - 4th booster dose	✓		
OPTIONAL VACCINES				
AGE	VACCINE	DUE ON	GIVEN ON	WEIGHT
	ILLB- 1	✓		
	2	✓		
	3	✓		
One Year	Hepatitis - A	✓ 8/11/06	8-11-06	23.5.07
Above One Year	Chicken Pox	✓	11-4-08	23.5.07
Above Two Years	Typhoid Vaccine	✓	19-12-06	21.12.07

Vaccination Schedule As Advised By Indian Academy of Pediatrics

This is the health record where his weight is recorded in the last column from the time of his birth.

Doctor represented this data in a chart as shown below



This is called the **growth chart**. In this data is represented as dots. Note the dots in the above chart.

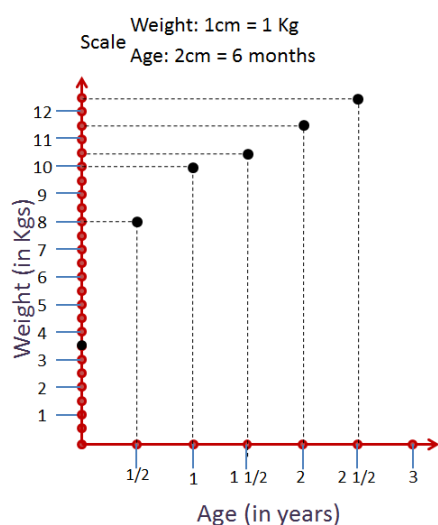
Teacher can now proceed with the following example.

Example 2:

If the data for change in weight with age is as shown below, plot this in a growth chart.

Age	Weight (kg)
Birth	3.5
6 months	8
1 year	10
1 and 1/2 years	10.5
2 years	12
2 and 1/2 years	12.5

Teacher can draw this on the blackboard



Steps to plot a growth chart

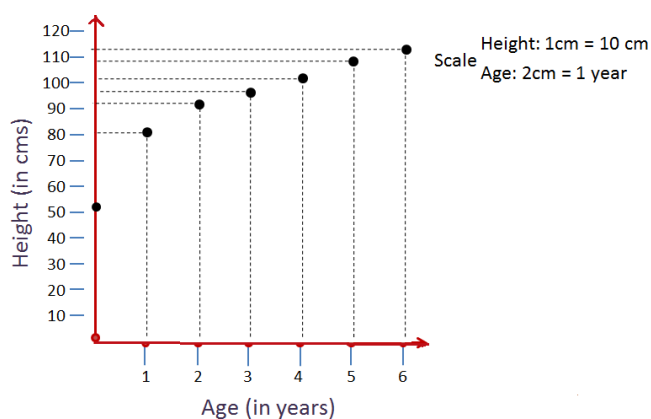
1. Draw 1 vertical line and 1 horizontal line perpendicular to each other and meeting each other at a point.
2. Choose an appropriate scale to represent the data.
3. Mark age on horizontal line and weight on the vertical line.
4. At birth, mark the point 3.5 on vertical line.
5. Keep your scale vertically at 6 months on horizontal line and mark a point which is in line with 8 on the vertical line. Highlight or encircle the marked point.
6. Represent rest of the data similarly.

Teacher can proceed with the next example.

Example 3:

If the change in height with age is as shown below, represent the data in a growth chart.

Age	Weight (kg)
Birth	3.5
6 months	8
1 year	10
1 and 1/2 years	10.5
2 years	12
2 and 1/2 years	12.5



1. When is the growth maximum?

Answer: In the first year.

2. Till what age do we grow tall?

Answer: Till we become 18 years old.

3. Do your parents grow taller even now?

Answer: No

Teacher can explain that we see similar kind of growth pattern in plants and animals.

Teacher can encourage children to draw their own growth charts.

Reference:

growth graphs: smadhavichillara@gmail.com

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Data Handling	

10. MS_Know your Family

Family tree

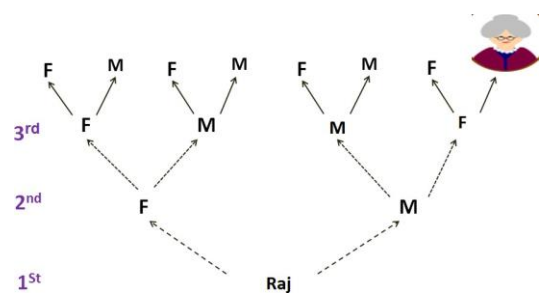
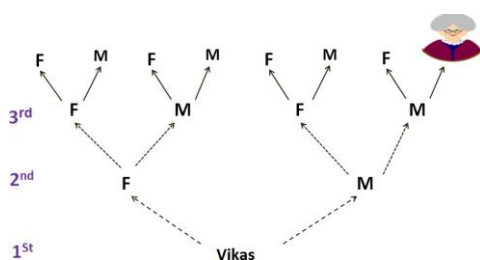
Teacher can start the class with these questions

- Whom do you look like?
- Do you resemble your mother, father or anyone else in your family?

Example:

Vikas went to a wedding with his mother and father. To his surprise, he saw another boy, Raj who looked exactly like him. In fact, others even mistook them as twins.

Both of them with the help of their parents started their investigation about this. To make it simpler, Vikas's mother drew a chart to know if they are related in any way as shown below:



M - Mother

F - Father

1st, 2nd, 3rd, 4th, ... generations

1st generation - Vikas and Raj

2nd generation - Parents

3rd generation - Grand parents

4th generation - Great grand parents

This is known as a family tree.

They found out that they are both distant relatives.

Vikas's grandmother's mother and Raj's grandfather's mother are the same.

This is a **family tree chart**. A family tree is a pictorial representation of all the members of a family.

Observe the family tree for Vikas and answer:

1. How many parents are there in 2nd generation?

Answer: 2.

Vikas belongs to this generation.

His father and mother are parents. They are in the second generation.

2. How many parents are there in 3rd generation?

Answer: 4

3. How many parents are there in 4th generation?

Answer: 7 because Vikas's grandmother and Raj's grandfather are siblings. They have same parents.

4. What do you observe in the number of parents in different generations in Vikas's family?

Answer: The number of parents in one generation is twice the number of parents than in the previous generation.

Teacher can tell students to draw their family tree and show in the next class. They can include all the other members too in the family tree. For example, siblings, cousins, uncles, aunts etc.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Data Handling	

11. IQ_Riddles in Relations

Riddles in Relations

Solve the following riddles

1. If Ajay introduces Dheeraj as the son of the only brother of his father's wife, how is Dheeraj related to Ajay?

Answer: The relations may be analysed as follows:

Father's wife – Mother

Mother's brother - Uncle

Uncle's son – Cousin

So, Dheeraj is Ajay's cousin.

2. If Mr. and Mrs. Iyer have 3 daughters and each daughter has a brother, how many members are there in the family?

Answer: There are Father, Mother, 3 daughters.

Each daughter has a brother. This means they have 1 son, because he will be the brother for all their daughters.

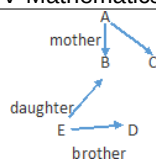
There are 6 members in the family.

3. If

- A is the mother of B
- C is the son of A
- D is the brother of E
- E is the daughter of B

Then, who is the the grandmother of whom?

Answer:



Follow the arrows for the relationship between 2 people.

A is the grandmother of E and D.

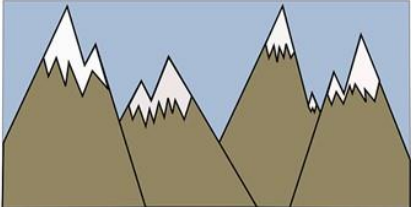
Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Inquisitive Questions	Data Handling	

12. DD_Charts in Daily Life

Charts in Daily Life

Teacher can explain as follows

- Your timetables, calendar, bills are in tabular form



Mon	Tue	Wed	Thr	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Card No. **S.R. NEWS Agencies (P) Ltd..**
Shop No. 17, 171, Tenmship Circle, Doorevadi Nagar,
Bangalore - 560 016, Immadahalli Road, Whitefield.

Mob : 9341490813

Name : _____ Mob : _____
Address : 9/362 Adv : _____
Particulars : STW Date : _____

Month	Bill Amount	Paid by Date & Sig	Receiver Sig. Date	Remarks
Jan - 20	120	26/1/20	[Signature]	Verified
Feb - 20	120	11/2/20	[Signature]	Do. to. H.K.
Mar - 20	150	28/3/20	[Signature]	Verified
Apr - 20	120	10/4/20	[Signature]	Verified
May - 20	120	6/5/20	[Signature]	Verified
Jun - 20	120	26/6/20	[Signature]	Verified
Jul - 20	120	11/7/20	[Signature]	Verified
Aug - 20				
Sep - 20				
Oct - 20				
Nov - 20				
Dec - 20				

NOTE : 1) Please Pay the Bill before 10th of Every Month
2) please inform paper Start & Stop in advance.
3) Please Don't pay bills to Delivery Boys.

We buy Old News Paper **Mob : 9742344008**

Cloudnine
KIDS CLINIC INDIA PVT. LTD
Nagarjuna Sai Nagar, 2nd Floor, Plot No. 11 Part (CA)
Of ECIZ Industrial Area, Whitefield Main Road
Bangalore-560 066
Phone : 1860 500 9999, Fax : 080 44679132
www.cloudninecare.com

Bill Date: 22-07-2019 10:53
Card Recipient Name: Mrs. Prashanth Chandra
Age: 100000100038305
Age in Months: 2 years 2 months 23 days Male
Doctor: Dr. Study Doctor (Prescriber)
Counter Name: _____

Bill # : ANW19L20C013769
Receipt # : 2002070803
File No : KA-BILL-141423
DL # : 00A0C007070912L

Counter Sales Bill

Sl. No.	Qty	Each	Subtotal	Tax	CGST	SGST	Total	Rate	Amount
1	1	100.00	100.00	1.80	1.80	1.80	103.60	100.00	103.60
2	1	100.00	100.00	1.80	1.80	1.80	103.60	100.00	103.60
Grand Total									207.20
Tax Amount									3.60
Final Amount									210.80

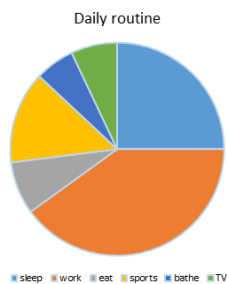
Receipt Details
Card # : 100000100038305

In Words : Rupees Two Hundred and Twenty Two And Fourteen Paise only

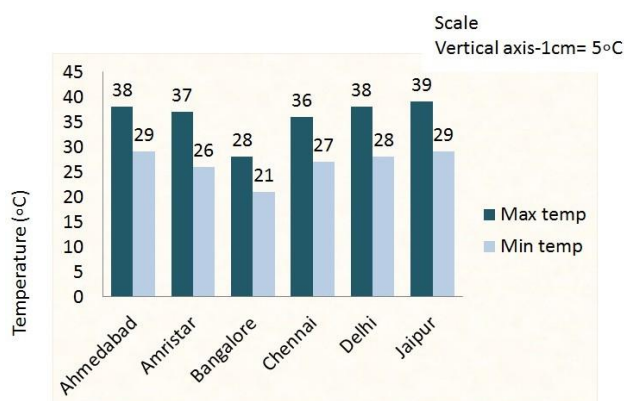
Signature of Pharmacist: _____

Bill to: Madala Dhanunjaya

- You can draw a pie chart for the right amount of time you should spend for different activities, and follow it



- Your mother can draw a pie chart for the money she spends to run the house and cut down unnecessary expenses
- Temperature of different cities is shown in tabular form and bar graphs in news

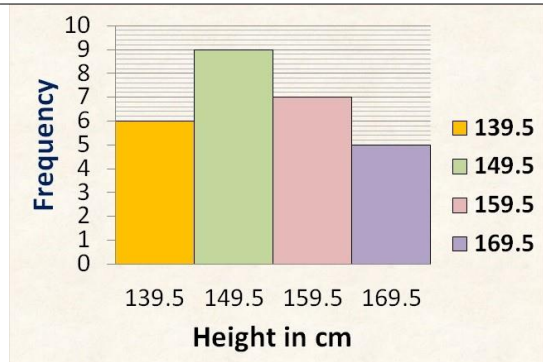


- Shopkeepers and retailers draw bar graphs for sales per month

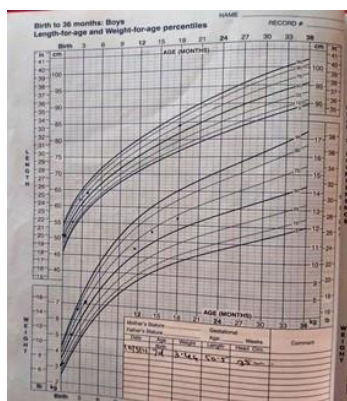


- Histograms are used to record height, weight, time etc

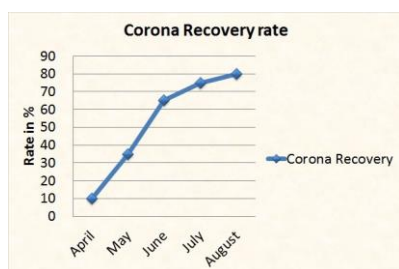
Height of 30 students



- Your teacher uses tally marks for noting your attendance in the attendance register
- Bus conductor uses tally marks to keep a count on the tickets he sells
- Doctor uses growth chart to check your growth



- Line graphs are used to know any trend



- **Family charts are used to know how you are related to a distant relative**

Look out for more examples for charts you come across in daily life.

Reference:

Time table: smadhavichillara@gmail.com

Bills: smadhaichillara@gmail.com

growth graph: smadhaichillara@gmail.com

calender: <https://pixabay.com/de/vectors/kalender-datum-monat-jahr-2014-33658/#comments>

corona: <https://pixabay.com/de/illustrations/virus-freigestellt-corona-4930122/>

Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Day-to-day Relevance	Data Handling	

13. QA_Exercise in Types of Charts

Exercise in Types of Charts

I. Fill in the blanks

- Histograms are used to represent _____ data.
- The graph with space between bars is _____.
- Circle chart is also known as _____.
- Information of any kind is _____.
- Doctor uses _____ to access the growth of a child.
- If  represents 6 ladoos, then  represents _____ ladoos.

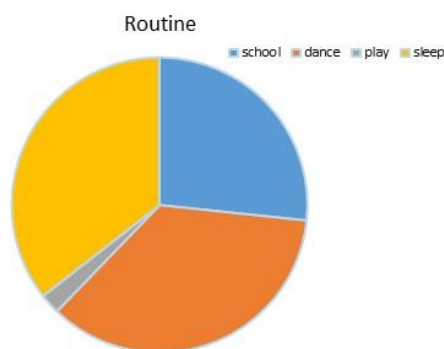
Answers:

- Continuous
- Bar graph
- Pie chart

4. Data**5. Growth chart****6. 30****II. Answer the following**

Ajay is participating in television reality show 'Super dancer'. His routine is shown below

1. How much time does he get to play?
2. How much time does he practice per day?
3. Is it good for children to take part in reality shows?



Number of hours shown by different colours are as following

Blue- 6

Orange- 8

Grey- 1/2

Yellow- 8

Answers:

1. $\frac{1}{2}$ an hour
2. 8 hours
3. No, children should enjoy their childhood instead.

III. Draw a bar graph and answer the questions.

Arun runs a canteen in a school. This is the data for items sold on a particular day.

Sl.no	Item	Quantity	Total money earned (Rs)
1	Tea	60	300
2	samosa	50	300
3	Biscuits	10	30
4	Bonda	100	700
5	sandwich	20	100

1. How many cups of tea did he sell?

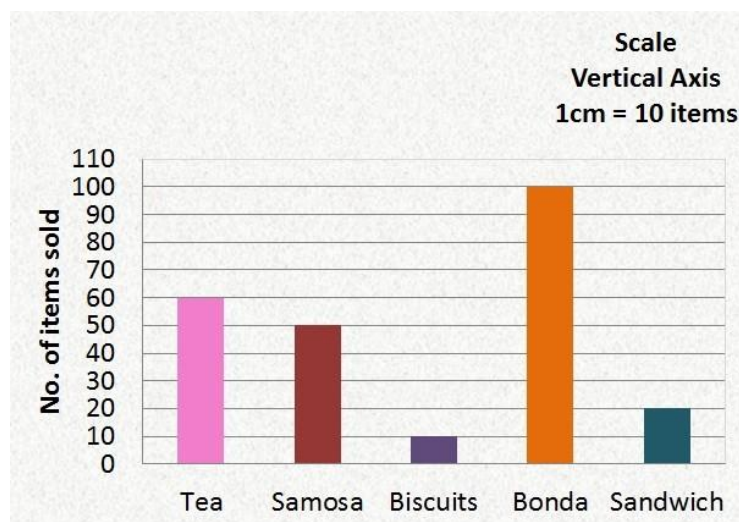
2. What is the scale you used?

3. What is his income on that day?

4. Write your favorite snack.

Note to teacher: Encourage children to collect different data simultaneously. Here the number of items and price are noted down simultaneously.

Answers:



1. 60

2. Vertical line 1cm=10 units

3. Rs.1,430

4. Samosa (can vary according to child's preference)

IV. Answer the following

Shanthamma bought 10 hens for her farm. Each hen laid 1 egg or no egg per day. She wanted to sell eggs after the number of eggs reached 100. To keep a count she noted down the total number of eggs every day up to date as follows

Day	Number of eggs laid	Total number of eggs laid updated
1	10	10
2	9	19
3	8	27
4	10	37
5	8	45
6		
7		

1. Fill up the last two rows.

2. After how many days will she be able to sell the eggs?

Answer:

1.

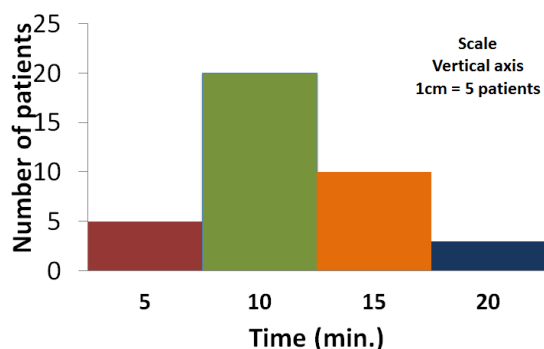
6	10	55
7	9	64

Note to teacher: The answers can vary. Encourage children to keep their own numbers. Only, it should not be more than 10.

2. After 11 days, since $11 \times 10 = 110$ and almost every day on an average there are almost 9 eggs.

Note to teacher: Encourage children to make a rough calculation, for example, 19 is almost $2 \times 10 = 20$ etc.

V. Raju is a compounder for a doctor. He has to give the time slot to patients. He draws a histogram for the amount of time taken for consultation after observing for 1 day as shown below.



1. What is the maximum time for consultation?

2. If the clinic opens at 5pm and there are 5 patients waiting already, when should he ask the 6th patient to come?

Answers:

1. 20

2. Since doctor takes 10 minutes per patient most of the times, for 5 patients it is $5 \times 10 = 50$ minutes. Sixth patient's turn will come at 5:50pm.

If he takes minimum time of 5 minutes per patient, for 5 patients it is $5 \times 5 = 25$ minutes. Sixth patient's turn will come at 5:25pm.

He can give the appointment at 5:25 pm with 1/2 hour waiting time.

Ref : laddoo - <https://www.pexels.com/photo/boondi-bundi-calories-confectionery-668575/>

Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Assessments	Data Handling	

14. MS_Summary-Smart Charts

Summary:

- Information represented in tabular form is easy to read and interpret.
- The information collected about anything is called data.
- Tally marks help us in counting a large number of objects quickly.
- Questions related to tally marks and tabular forms can be solved.
- A graphical representation of data is called a chart.
- A pie chart is a circular chart divided into sections. Each section shows the relative size of relevant data.
- The representation of data in columns by drawing vertical or horizontal rectangles with uniform space between them is called a bar graph.
- Histogram is a representation of data using bars of different heights. Histograms are used to show continuous data.
- Questions related to types of charts can be solved.
- Nonviolence can be practiced in daily life by practicing short and sweet speech.
- Different patterns of charts can be identified.
- A family tree is a pictorial representation of all the members of a family.
- Riddles in relationships can be solved by analyzing data using a family tree.
- Growth pattern can be analyzed using growth charts.
- We come across different patterns of charts in our daily life.

Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Main Script	Data Handling	