Lesson title: Smart Chart

MAT 341

Grade: 5

Theme: Data Handling

Purpose of Data Handling:

Data handling is the ability to collect, classify, and interpret data, which is considered to be an important aspect of mathematical literacy. The increasing use of tables, diagrams, and questionnaires has become an integral part of our everyday lives. Data handling is a skill that is required for interpreting any information meaningfully—be it reading newspapers or even the material in a textbook. Moreover, graphical forms and tables are critical tools for communication, and they enrich the child's toolkit for the formal presentation of information. It will be useful for a child later in their life, if he/she is called on to critically judge a presented data. In such cases, one who has not been trained in methods of presentation is likely to be easily manipulated.

Objectives:

- Collect and record the data in the raw form.
- Present the data in the form of a frequency table.
- Interpret real-life situations in terms of meaningful data.
- Interpret the data.

Activity 1:

Learning Objective: Collect and record the data in the raw form
(This supporting activity helps to comprehend the content presented in Pg. No: 159 of Grade 5, NCERT Mathematics Textbook)

<table>
<tr><th>Suggested Strategies
(How am I teaching?)</th><th>Continuous Review
(How do I know that the students have learnt?)</th><th>Resources
(What do I need?)</th></tr>
<tr>
<td>Sharing a pack of Domino cards with the students and managing the cards by data.
For instance:
Shuffle the pack of Domino cards and ask the students to separate the cards based on the number of dots.
Example:
16 cards having single dot each
10 cards having double dots each</td>
<td>
<table>
<tr><th></th><th>Dots</th><th>No. of Cards</th></tr>
<tr><td>1</td><td>Single dot</td><td></td></tr>
<tr><td>2</td><td>Double dot</td><td></td></tr>
</table>
</td>
<td>• Domino cards</td>
</tr>
</table>

Activity 2:

Learning Objective: Interpreting real-life situations in terms of meaningful data

(This supporting activity helps to comprehend the content presented in Pg. No: 160 of Grade 5, NCERT Mathematics Textbook)

<table>
<tr><th>Suggested Strategies
(How am I teaching?)</th><th>Continuous Review
(How do I know that the students have learnt?)</th><th>Resources
(What do I need?)</th></tr>
<tr>
<td>Showing the pictures of some real-life situations to the students, record the data from the picture. For instance, a traffic jam, bird-watching, food stalls, bus stands, etc.
 
  </td>
<td>
<table>
<tr><th></th><th>Vehicles</th><th>No. of Vehicles</th></tr>
<tr><td>1</td><td>Bus</td><td></td></tr>
<tr><td>2</td><td>Car</td><td></td></tr>
<tr><td>3</td><td>Truck</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
</table>
<table>
<tr><th></th><th>Birds</th><th>No. of Birds</th></tr>
<tr><td></td><td></td><td></td></tr>
</table>
This activity can be extended to a project: What are the pet birds? In your circumstances, how many the birds are there in your home ?
</td>
<td>

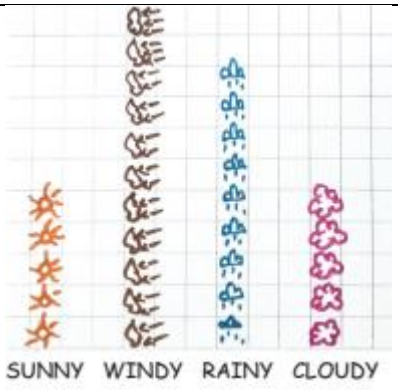
Collection of photos of traffic jam.
Collection of photos of bird-watching
Collection of Photos of food stalls

etc.
</td>
</tr>
</table>

Activity 3:

Learning Objective: Interpreting real-life situations in terms of meaningful data

(This supporting activity helps to comprehend the content presented in Pg. No: 165 of Grade 5, NCERT Mathematics Textbook)

Suggested Strategies *(How am I teaching?)*	**Continuous Review** *(How do I know that the students have learnt?)*	**Resources** *(What do I need?)*
Weather calendar and chart: Weather can be categorised as 'sunny', 'windy', 'rainy', or 'cloudy'. The students can create symbols to depict each of these four categories of weather. Each day, an entry is made in the calendar according to the weather of that day. At the end of the month, a pictograph can be prepared based on the information from the calendar. Alternatively, by providing old newspaper containing the weather report to the students, they can be asked to categorise the data as directed above.	 **Discussion Questions:** 1) Why did we have so many rainy days in this month? Is it possible to guess? 2) What kind of a day will tomorrow be? If we make a weather chart for March, will it look like this? 3) Are there some days when it is both rainy and windy? 4) How did we mark those days?	

Activity 4:

Learning Objective: Interpret the data and present it in the form of a frequency table
(This supporting activity helps to comprehend the content presented in Pg. No: 159 of Grade 5, NCERT Mathematics Textbook)

Suggested Strategies *(How am I teaching?)*	**Continuous Review** *(How do I know that the students have learnt?)*	**Resources** *(What do I need?)*
The class time table has a complicated structure. Analysing it helps to unlock the students' understanding of the same. Asking the students to answer the following queries offers much scope to see how well they understand tables.	**Sample Questions :** 1) How many hours per week are spent in mathematics? 2) Which activity takes up the least amount of time over a week? 3) What are the subjects that are studied daily? What subjects are studied on alternate days? **Note:** The last question is more complicated than the others—It requires the child to first understand what is to be done, and then figure out how the data is to be analysed accordingly. The teacher should make a note of the students who are able to do this task independently and the ones who need support for this part of the task. **Open-Ended Questions:** (General) 1)Each student should prepare 10 questions and exchange them with their partner. 2) Can play time be doubled, without reducing the time for any subject by more than one hour?	• Copies of the class time table or time tables of other classes.

Activity 5: Project Idea

(This supporting activity helps to comprehend the content presented in Pg. No: 166 of Grade 5, NCERT Mathematics Textbook)

Suggested Strategies *(How am I teaching?)*	**Continuous Review** *(How do I know that the students have learnt?)*	**Resources** *(What do I need?)*
Discussion Questions: 1) Why is attendance necessary? 2) Who is always present? 3) Who is mostly absent? Why? Through this discussion, the teacher should provide the consolidated idea of preparing a colourful attendance sheet.		• Flip sheet. • Round Stickers. • Attendance register from the past.