

**ANNUAL CURRICULUM PLAN  
2020 – 2021**

**COMPUTER SCIENCE  
CLASS VII**

**Vision**

- ***To acquaint students with the Computer System and its various I/P & O/P devices, storage devices and Memory.***
- ***To develop the intellectual, creative and thinking capabilities through the use of computer technology.***
- ***To make them aware about the various number systems used and to inculcate among students the zeal to handle large amount of data with efficiency and speed.***
- ***To make students understand about various computer hazards and the benefits & drawbacks of using technology in their day to day life.***

**TERM PERIOD - APRIL TO SEPTEMBER**

<b>Chapter</b>	<b>Learning Topics</b>	<b>Transaction Strategies/ Innovative Pedagogy</b>	<b>Learning Outcomes</b>	<b>Core Skills/Art Integration</b>
Ch-1: Computer System	Computer System, Components of Computer cabinet, Peripheral Devices, Input & Output Devices, Primary & Secondary memory, Software	Dividing the class in groups and assigning them various topics related to computer system & then asking them to present their screen. They will prepare the list of hardware that they have seen in their real life. Discussion method Youtube video <a href="https://youtu.be/wd082OMo-yk">https://youtu.be/wd082OMo-yk</a> PPT on “Peripheral Devices”	Students will be able to understand various I/P & O/P devices and their usage in their daily lives and difference b/w primary & secondary memory. They will also learn about different components of Computer cabinet. They will inculcate the value of helping others with the use of discussion method.	<b>Core Skills:</b> Descriptive skills, Observation skills, Analytical skills,  <b>Art Integration:</b> Prepare a list of I/P & O/P devices that you have seen at your home
Ch-2: Number System	Introduction, Types of Number System: Binary, Decimal, Octal, Hexadecimal Conversion from decimal to binary system and vice versa	Showing them various examples related to number systems and their usage in their daily lives. They will also learn Conversions from one system to another with help of examples. Discussion Method Demonstration via Screen Share option of Google meet Learning by doing	Students will learn about Number system and its relevance in Computers. They will also be made aware about various conversions done in Computers.  They will be given questions based on different number systems to evaluate their understanding.	<b>Core Skills:</b> Observation skills, Descriptive skills, Analytical Reasoning  <b>Art Integration:</b> Make a PPT on Number Systems with beautiful background and animation effects
Ch-3: Details on Windows 10	Features of Windows 10, Windows 10 Settings, Power saving options, Disk Cleanup, Pinning to taskbar	Students will be given a task to create a list of Features of Windows 10 Operating System. They will be asked to pin programs/items to the taskbar to know its importance and usage. Demonstration via Screen Share option of Google meet Group discussion Learning by doing	Students will be made aware about various features of Windows 10 with help of examples and practical implementation. Importance of pinning will also be made clear to them. A sense of Responsibility will be developed in them as they learn to use computer system on their own.	<b>Core Skills:</b> Descriptive skills, Analytical Reasoning, Problem Solving, Creative thinking  <b>Art Integration:</b> Pin MS Word, your favorite game and your favorite program to the taskbar

## TERM PERIOD - OCTOBER TO FEBRUARY

<p>Ch-4: Elaboration on MS Excel 2016</p>	<p>Cell Referencing: Relative, Absolute, Mixed referencing Functions of MS Excel, Organizing data, Filtering data, Conditional Formatting, Sharing/exporting workbooks</p>	<p>Asking students to create a list of vegetables with its price and quantity in MS Excel then demonstrating the concept of cell referencing and different functions available in excel. They will apply different conditional formatting on cells. Discussion Method Demonstration via Screen Share option of Google meet Youtube videos: <a href="https://youtu.be/jWjASPiFvQ">https://youtu.be/jWjASPiFvQ</a> <a href="https://youtu.be/7iKoccSTNZ">https://youtu.be/7iKoccSTNZ</a> A Learning by doing</p>	<p>Students will learn about the concept of cell referencing and will learn how to use various functions available in Excel. They will be made aware about various formatting &amp; Filtering options available in Excel. The sense of dealing with difficulties with ease will be inculcated in students.</p>	<p><b>Core Skills:</b> Observation skills, Decision making, Problem solving, Analytical reasoning</p> <p><b>Art Integration:</b> Create a list of some stationery items with their price &amp; quantity and use various functions available in Excel &amp; also export worksheet in different format such as PDF</p> <p><b>Interdisciplinary Linkages:</b> Mathematics</p>
<p>Ch-5: Creating Charts in MS Excel 2016</p>	<p>Components of a Chart, Types of Charts: Column, Bar, Line, Pie, Area, Sunburst, Creating Charts in Excel, Customizing charts</p>	<p>Showing them a PPT on Charts in MS Excel to explain the concept of charts available in Excel. So, as to make them understand how to create different types of charts and how to customize charts using different options. Demonstration via Screen Share option of Google meet PPT on "Charts in MS Excel" Learning by doing Discussion Method</p>	<p>Concept of charts will be made clear to the students with components of a chart and the procedure for customizing a Chart will also be explained practically. They will understand how to create a chart &amp; its importance in daily lives.</p>	<p><b>Core Skills:</b> Creative skills, Decision making, Problem solving, Analytical reasoning</p> <p><b>Art Integration:</b> Create a list of some fruits with their price enabling the use of different types of charts available in Excel</p> <p><b>Interdisciplinary Linkages:</b> Mathematics</p>
<p>Ch-8: Hazards to Computers</p>	<p>Computer Virus, Impact of virus on computers, Prevention/Protection against Viruses, Types of viruses, Anti-Virus, Updating the Antivirus software</p>	<p>Giving them real life examples of viruses like the virus causing fever, etc. and relating it to the computer field that a virus is harmful for computer. Conducting a quiz to find out different anti-virus software available nowadays. Discussion method Demonstration via Screen Share option of Google meet Quiz Youtube video: <a href="https://youtu.be/n8mbzU0X2">https://youtu.be/n8mbzU0X2</a></p>	<p>Students will get to know about computer virus &amp; will be able to differentiate b/w Bombs, Trojans, Worms. They will also get the knowledge of protecting a computer using Anti-virus Software. The value of trust/mistrust will be developed with the concept of computer virus.</p>	<p><b>Core Skills:</b> Analytical skills, Decision making, Creative skills, Problem solving</p> <p><b>Art Integration:</b> Create a list of antivirus software available nowadays and try to scan a Pen drive for viruses</p>
<p>Ch-9: Importance of Internet</p>	<p>Online education, Downloading, Communication, Video Conferencing</p>	<p>Asking students to search for some information on topic 'Internet &amp; Education' with the help of search engines at home &amp; sharing their experience in the class. They will also learn the concept of video conferencing &amp; its relevance in their daily lives. Discussion method Activity based learning Demonstration via Screen Share option of Google meet</p>	<p>Students will get familiar with the term Internet, online education, downloading &amp; Video Conferencing and their day to day utility. They will learn to use technology correctly and responsibly hence inculcating value of Responsibility in them.</p>	<p><b>Core Skills:</b> Analytical thinking, Intellectual skills, Decision making,</p> <p><b>Art Integration:</b> Try to book a train ticket online and write the things needed to book it</p> <p>Create a list of few video conferencing apps available nowadays</p>