KEYBOARD

Computer Science With Application Software

THIRD EDITION

2

TEACHING GUIDE

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About the Series

The computer in present-day society is an indispensable tool facilitating communication and work. From huge machines weighing several tons, the computer has evolved into light, sleek yet powerful tools that dominate today's knowledge society. Many previously complex and time-consuming tasks have been reduced to the mere touch of a few buttons on the keyboard. Basic computing skills like word processing are an essential requirement in today's job market. The Internet has revolutionised the way people communicate and interact. Geographical distances are no longer a constraint for effective business transactions, information dissemination, and interpersonal interactions, as distances have been overcome through extensive, intricately-designed communication networks.

Today computer science is an academic subject in its own right, governed by scientific and mathematical principles. It is an integral part of what is commonly called STEM (Science, Technology, Engineering, and Mathematics). Due to its increasing importance, computer classes have become an essential part of the education curriculum around the world.

However, the trend has been to favour Information and Communication Technology (ICT) rather than the science behind computers. ICT in schools usually focuses only on teaching how to use office productivity software, such as, word processors, presentation software, and spreadsheets. We, as teachers, should be careful that we teach not only ICT, but also computing, especially in the lower classes. This is an important distinction because ICT primarily involves simply understanding and memorising commands. As a consequence many students may get the impression that there is not much of creativity involved in using computers. This may possibly result in students losing interest in what they mistakenly believe to be computing. Students are not introduced to how computers work and are not provided with the opportunity to be creative through computing activities that challenge them to use their logical and analytical abilities along with being creative.

Computer science education should be such that children later on, if they choose to do so, would be capable of making a meaningful contribution either to further advance our digital society or use digital media optimally in their chosen field of study or work. Computer education in schools should equip every child with the basic understanding of how computers work and with the possibilities of information technology in a knowledge-based society and economy. This has been the rationale for developing this third edition of the **Keyboard** series—*Keyboard: Computer Science with Application Software.*

KEYBOARD: COMPUTER SCIENCE WITH APPLICATION SOFTWARE

Keyboard: Computer Science with application Software, third edition, a series of eight books for Classes 1 to 8, is a comprehensively revised edition of *Keyboard: Computer Science with application Software*, second edition, and carries forward the very same interesting and interactive approach that is a hallmark of the existing edition. The series aims to make the study of computer science engaging and interactive for students through a combination of interesting features.

The contents are based on the most recent feedback from teachers and incorporate the latest trends in computer education. We have taken particular care to update facts and figures, and to include the latest advancements in the field of information and communication technology. Thus, trendsetting topics such as social networking and cloud computing have been explained along with devices such as smartphones and tablets. Also, in keeping with the times, there is greater focus on animation and web-designing concepts.

The series introduces the subject in a language that is simple and direct. Technical jargon is used only where necessary and all such terms are defined at the end of each chapter. Comic strips, icons, cartoon characters, and illustrations make the learning process an enjoyable experience.

Keyboard: Computer Science with Application Software is an advanced course in computer science meant for those schools that wish to teach creative application software, such as **Flash**, **HTML**, **Photoshop**, and **Dreamweaver**, along with the basic concepts of computers, computer programming, and the Internet. In keeping with the times it also introduces students to sound (**Audacity**) and video-editing **(Lightworks)** software.

COURSE FEATURES AND HIGHLIGHTS

Each chapter in *Keyboard: Computer Science with Application Software* starts with an engaging introduction in comic strip format presenting a conversation between two characters, **Goggle** and **Toggle**. Goggle represents an average primary and middle school student, while Toggle is an animated laptop and an expert in computer science. Toggle helps Goggle understand all that is taught about computers and computer software in the series. The series has a hands-on approach to learning with text supported by relevant screenshots, and plenty of practical exercises. The MS Office screenshots are based on **MS Office 2013**, with the compact and user-friendly **Windows 7** as the operating system.

Practice Time, Exercises, In the Lab, and Group Project

Practice Time is a feature that has been a part of all the computer science series we have written, and it has been found by teachers to be a very useful feature. We continue with it in *Keyboard: Computer Science with Application Software* also. The feature provides practical exercises after every major topic, in which the student applies the concept(s) learnt in the previous section to solve a practical problem. The detailed solution is given after the question, so that students are able to understand the practical application of a particular concept on their own. This frees the teacher from the process of trying to individually assess whether all the students have properly grasped the concept.

The **Exercises** and **In the Lab** questions in the series deserve particular mention. as they have been developed according to Bloom's Taxonomy. The exercises in each chapter have sufficient theoretical and practical questions for concept application.

Application-Based Questions is a special analytical section within Exercises, aimed at encouraging students to evaluate a picture or a situation, and answer questions based on them.

The **In the Lab** questions are similar to those under **Practice Time** except that the solutions are not given. The questions too are more complex than those found under **Practice Time**. In both, however, the questions describe

a variety of situations across subjects. Thus, both attempt to integrate the use of computers with problem-solving in other subjects.

Group Projects encourage the students to work in collaboration with their peers and implement what they learnt in the lessons.

Worksheets and Assessment Papers

Worksheets have been introduced in Classes I to V, while for Classes VI to VIII **Assessment** and **Comprehensive Assessment** papers have been included.

Teaching Resources

The teacher's resources for the *Keyboard: Computer Science with Application Software*, series have two components: (a) Teaching Guides and (b) Teacher's Digital Resources.

Teaching Guides

The Teaching Guides accompanying each of the coursebooks is carefully structured to provide useful support to teachers.

Each Teaching guide contains the following:

- A **Lesson Plan** that details the periods recommended for a particular chapter, the topics therein, the expected learning outcomes at the end of each topic, and the digital support available for each chapter. This is intended to assist teachers in respect of overall planning. Teachers may go through the lesson plan before stepping into the class or may use the recommendations for creating their own.
- A set of **chapter-wise Worksheets** follows the lesson plans, and has questions in the form of Crossword Puzzles, Word Searches, Jumbled Words, etc. designed to reinforce conceptual understanding.
- In addition to the **Worksheets**, a set of **chapter-wise test papers** has also been provided, which may be used by teachers to create their own assessment papers, or may be used as they are for classroom tests.
- The complete **Answer Key** to the Coursebook Exercises has been given in the teaching guide, including that for the In the Lab questions, Group Project, Worksheets/Assessment papers, Revision Questions, and the Cyber Olympiad Questions.

Digital Resources

The teacher's digital support for the series is accompained by a **Test Generator**.

This comprehensive and easy-to-use **Test Generator** is an effective assessment tool designed to benefit teachers by enabling them to create a variety of test papers.

It has two sections: (a) Coursebook questions (b) Questions beyond the coursebook.

Both include an extensive pool of questions, such as multiple choice, true or false, fill in the blanks, short answer, and long answer questions, as well as lab exercises wherever relevant. Answers have been provided to enable efficient and effective evaluation. The **Test Generator** allows the teacher to create test papers for one or more chapters, with a mix of questions from both the sections. The Student's Books, and the accompanying Teaching Guides and teacher's digital support, together form a complete package enabling one to teach the subject effectively.

Continuous and Comprehensive Evaluation

Learning takes place in a variety of ways — through experience, making and doing things, experi-mentation, reading, discussion, asking, listening, thinking and reflecting, and expressing oneself in speech, movement or writing. All these modes of learning are possible both individually and in groups. It would thus be advantageous for children to be given the opportunity to involve themselves in as many of these activities as possible.

CONTINUOUS AND COMPREHENSIVE EVALUATION (CCE)

The primary objectives of this system are (1) to maintain continuity in evaluation and (2) to reliably assess broad-based learning and behavioural outcomes.

In this system the term 'continuous' is meant to emphasize that evaluation of a student's progress is a continuous process rather than an event. It is spread over the entire span of an academic session, and means regularity of assessment and unit-testing. It also includes a diagnosis of learning gaps, the use of corrective measures, retesting, as well as self-evaluation.

The term 'comprehensive' suggests that the system should cover both scholastic and co-scholastic aspects of a student's growth and development.

This system expects assessment to be both **formative** and **summative**. Formative assessment is a tool used by the teacher to continuously monitor student progress in a supportive environment. It involves regular descriptive feedback, a chance for the student to reflect on the performance, take advice and improve upon it. If used effectively it can improve student performance tremendously.

Summative assessment is carried out at the end of a course of learning. It measures or 'sums-up' how much a student has learned from the course. It is usually a graded test, i.e., it is marked according to a scale or set of grades.

It has been found that assessment that is predominantly of a summative nature will not by itself be able to yield a valid measure of the growth and development of the child. It, at best, certifies the level of achievement only at a given point of time.

The paper-pencil tests are basically a one-time mode of assessment and to exclusively rely on it to decide about the development of a child is both unfair and unscientific. Over-emphasis on examination marks makes children assume that assessment is different from learning. Besides encouraging unhealthy competition, the reliance on a summative assessment system also results in great stress and anxiety among learners.

The *Keyboard: Computer Science with Application Software,* series, comprising of **Student's Books, Teaching Guides,** and **Digital Resources,** has a number of features that aid both continuous and comprehensive evaluation.

CONTINUOUS EVALUATION

Coursebooks

Beginning of Instruction (Formative Assessment)

- The introductory dialogue at the beginning of each chapter between Goggle and Toggle is a starter to the chapter topic and can be employed to test the prior knowledge of students by using the dialogue to ask for possible solutions or an answer to Goggle's question. For example, in the following dialogue you can also ask them what is the alternative to clicking the **Run** button.
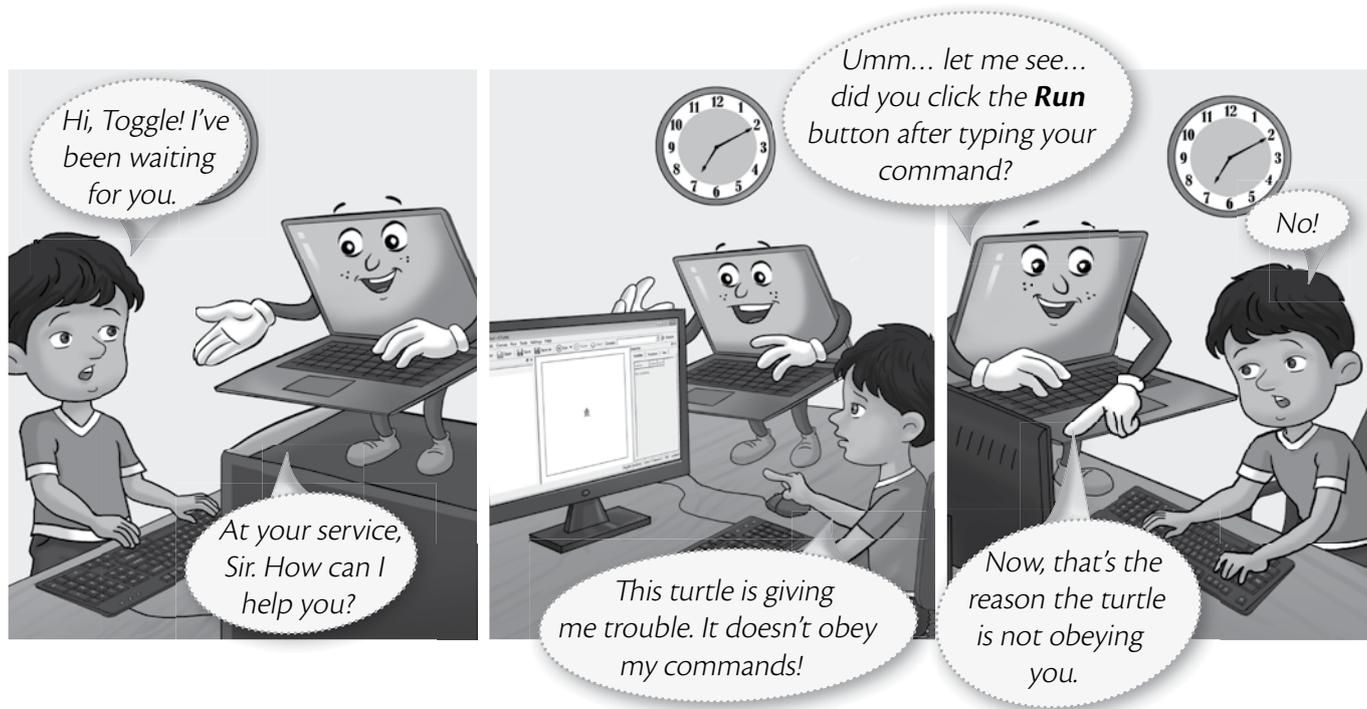
During Instruction (Formative Assessment)

- The conceptual grasp of students can be assessed during instruction through Practice Time, which has been placed after every major topic **in the Student's Book**, by observing how fast they carry out the task as given. A couple of questions may also be added to test their understanding of the concept. For example, in the question below students may be asked if they can use the tl command in the solution to this question instead of the tr command.

PRACTICE TIME

Tania wants to draw a rectangle of breadth 40 steps and length 60 steps in KTurtle using the `turnright (tr)` command. Can you help her out?

```
1 reset
2 fw 40
3 tr 90
4 fw 60
5 tr 90
6 fw 40
7 tr 90
8 fw 60
9 tr 90
```

SOLUTION

1. Tina should type the code given alongside in the KTurtle Editor pane.
2. After typing the code, she should click the **Run** button.
3. The output will appear as given here.

Note: Try doing the same using the `tl` command also.
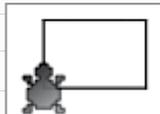
End-of-Chapter (Summative Assessment)

- At the end of the chapter the student can be tested on acquired knowledge through the objective and descriptive

questions of the **Exercises**, the **Application-Based Questions**, and on the practical application of concepts through **In the Lab** questions, and **Group Project**.

End-of-Unit and Term (Formative as well as Summative Assessment)

- Assessment at the end of a unit, or a set of three or four chapters, is facilitated through **Worksheets** in classes I to V.

TEACHING GUIDES

The Teaching guides provide the following support for **formative** and **summative** assessment:

- **Worksheets**, **one for each chapter**, have questions in the form of Crossword Puzzles, Word Searches, Jumbled Words, etc. designed to reinforce conceptual understanding.

- **Test papers**, **one for each chapter**, which may be used by teachers by photocopying them in a larger format for classroom tests.

DIGITAL RESOURCES

The downloadable digital resources are for the series provided accompanied with **Test Generator**.

The Digital resource for *Keyboard: Computer Science with Application Software,* includes:

- **Animations** for the theoretical chapters such as that on operating systems, history of computers, input and output devices, etc. that offer an interesting audio-visual element to technically complex or difficult concepts. There are one or more modules for each such chapter which may be paused at relevant points and feedback taken on what the children have seen, heard, and understood.

- **Demo Videos** that are linked to one of the Practice Times in software chapters (those chapters that describe the features and commands available in a software), and present a step-by-step audio-visual guide to solving the problem described in that particular Practice Time question. One or more objective type question(s) has (have) been introduced at (a) strategic point(s) under the feature **Rapid Round** during the demo to encourage children to participate in the solution to the problem. These questions could be also be used as a formative assessment tool.

- **Interactive Exercises**   The **objective type questions** have been made interactive in the form of pop-up screens in which the right answer can be typed in or clicked. Clicking **Submit** will give you feedback, hence these can be used as a formative assessment tool for quick evaluation.

- **Printable documents** for every chapter in the form of soft copies of the worksheets and test papers given in the Teaching Guides. The teacher is free to use either version of the worksheets and test papers as formative

assessment tools.

- Additional projects, Cyber Olympiad questions for practice, revision questions, and sample assessment papers (in classes 6 to 8).

The **Test Generator** accompanying **digital resources** is an effective assessment tool designed to benefit teachers by enabling them to create a variety of test papers.

It has two sections: (a) Coursebook questions   (b) Questions beyond the coursebook.

Both have an extensive pool of questions including multiple choice, true or false, fill in the blanks, very short answer, and short answer questions, as well as lab exercises wherever relevant. The Test Generator can be used to create test papers for one or more chapters, with a mix of questions from both the sections. The wide variety of objective and descriptive type of questions makes the tool flexible enough for teachers to employ it either for formative or for summative assessment. Answers have also been provided for these questions to aid efficient and effective evaluation by teachers.

COMPREHENSIVE EVALUATION

Comprehensive evaluation involves, as explained above, both the scholastic and co-scholastic aspects of a student's growth and development. It aims to assess the student not only in the area of pure knowledge but also in the areas of their analytical and creative ability, as well as in their general attitudes and aptitudes.

The key features in *Keyboard: Computer Science with Application Software,* have been designed to provide both scholastic and co-scholastic development.

Scholastic

- The features such as Did You Know?, Fast Forward, Top Tip, Tricky Terms, and Memory Bytes, enhance and reinforce conceptual knowledge.

Did you Know?

One point equals 1/72th of an inch.

Fast Forward

Font dialog box   **Ctrl + D**

Top Tip   TIP

Starter images are backgrounds with outlines of images, or 3D photographs, that you can use in Tux Paint.

Tricky Terms

Template   A pre-defined design layout that saves time while designing

Objects   The elements you place in your publication

Guides   They are horizontal and vertical lines

Scratch Area   The grey area around the publication page where objects can be placed before insertion in the publication page

Drop Cap   A text-formatting style that enlarges the first letter of the selected text

Memory Bytes

- The AutoFill feature lets you quickly enter a predefined series of data.
- There are two ways to create custom lists: by importing the list or by entering the list in the **Custom Lists** dialog box.
- Filtering selectively displays rows/columns that meet the criteria specified by the user.
- Conditional formatting allows you to set a cell's format according to the conditions you specify.

Co-Scholastic

- The features such as Computer Manners, Projects, and the design of the practical exercises focus both on scholastic and co-scholastic areas by creating awareness on ethical and correct use of computers, as well as the use of computers as a tool for applying their creativity and enhancing their problem-solving skills.

Computer Manners

PROJECTS

KTURTLE

Type the following commands and execute it in KTurtle. Draw the figure you see on the canvas in the space provided.

Note: Read and enter the commands column-wise.

```
reset                  fw 100    fw 120
canvascolor 255,0,0    bw 40     tr 45
pencolor 0, 255,0      tr 90     fw 70
penwidth 5             fw 50     tr 90
go 150,250             tr 90     fw 70
fw 120                 fw 20     tl 135
tr 90                  tr 90     go 60,250
fw 100                 fw 50     fontsize 40
tr 90                  tr 90     pencolor 0, 0, 255
fw 120                 fw 60     print "This is my house"
tr 90                  tr 90     spritehide
```

Find out how many rectangles there are in the figure. ....

Application-Based Questions

a. Observe the given figure on the right and answer the following questions:
    i. Which tool is selected in the figure?
    ii. Name the modifier that has been used to draw line A.
    iii. Name the modifier that has been used to draw line B.
    iv. Which modifier will you use to draw lines without any modifications?

b. Danya has to create a cartoon character using tools available in Flash CS3. Which tool will she use for the following purposes?
    i. Paint freely on the stage
    ii. Draw a square
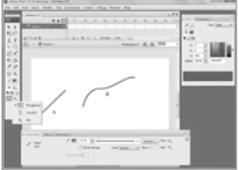
IN THE LAB

1. Amir has designed a NewYear greeting card in Paint as shown below. Make a New Year greeting card of your own, using the various tools in Paint, for your teacher.

SCHEME OF WORK AND LESSON PLAN

- A **Scheme of work** and **Lesson Plan** has been devised for each chapter which details the number of periods recommended for that chapter, the topics covered in that chapter, the recommended topic-wise allocation of periods, the learning outcomes, and the **downloadable digital resources** available for that chapter.

- The total number of periods in a year for computer science has been taken at 36 assuming one period in a week for the subject.

- Teachers may go through the lesson plan before stepping into the class. However, this is a proposed lesson plan, and teachers are free to modify it as per their teaching styles or teaching sequence in respect of the chapters.

SCHEME OF WORK*

Chapter Title	In This Chapter	Topic-wise Allocation of Periods	Learning Outcomes
1. A Smart Machine	The Computer—A Machine	0.5	The student should be able to: • describe the computer as a machine which helps us do various tasks.
	Humans and Computers	0.5	• differentiate between humans and computers.
	Types of Computers	1	• classify computers based on size. • identify the different types of computers.
	Starting and Shutting Down a Computer	1	• start and shut down a computer in the correct way
2. Parts of a Computer	Monitor	1	The student should be able to: • define a computer system. • list the four main parts of a computer. • identify the monitor. • recognise its resemblance with a television. • describe what the monitor is used for.
	CPU Cabinet	0.5	• identify the CPU Cabinet. • describe what it contains.
	Keyboard	0.5	• recognise the keyboard. • explain the use of a keyboard.
	Mouse	0.5	• identify the mouse. • explain the use of a mouse and a mouse pad.
	Printer	0.5	• recognise the printer. • describe the use of a printer. • define a printout.
	Microphone, Speakers, and Headphones	0.5	• recognise the microphone, speakers, and headphones. • describe what they are used for. • decide when to use headphones and when to use speakers.
	Input and Output Devices	0.5	• explain what the input and the output devices are. • identify the different types of input and output devices.
	UPS	0.5	• recall what the acronym UPS stands for. • describe the use of a UPS.
	Floppy Disk, Hard Disk, CD, DVD, and USB	1	• identify floppy disks, hard disks, CDs and DVDs, and USBs. • explain what a hard disk is and what it is used for. • differentiate between a CD and a DVD.
			• describe the use of a USB and its advantage over a CD and DVD
3. Keyboard	Cursor Control Keys	1	The student should be able to: • recognise the cursor control keys. • explain their use.
	BACKSPACE key	0.5	• identify the BACKSPACE key. • describe its use.

*The topic-wise allocation of periods for each chapter may vary, as per the individual class requirements.

Chapter Title	In This Chapter	Topic-wise Allocation of Periods	Learning Outcomes
	DELETE Key	0.5	• recognise the DELETE key. • explain its use. • differentiate between the BACKSPACE key and the DELETE key.
	CAPS LOCK key	0.5	• identify the CAPS LOCK key. • recall the use of the CAPS LOCK key and work with it.
	NUM LOCK key	1	• recognise the NUM LOCK key. • identify the numeric keypad and explain the use of the NUM LOCK key.
	Shift key	0.5	• identify the Shift Key. • explain its use.
	TAB key	0.5	• identify the TAB key. • explain the use of the TAB key.
	ESC key	0.5	• identify the ESC key. • describe the use of the ESC key and work with it.
4. Uses of Computers	Schools	0.5	The student should be able to: • describe the uses of computers in schools.
	Railway Stations and Airports	0.5	• list the uses of computers at railway stations and airports.
	Making Films	0.5	• define animation and describe how computers are used in making films.
	Banks	1	• explain the uses of computers in banks. • describe what an ATM machine is.
	Hospitals	0.5	• recount the uses of computers in hospitals.
	Offices	0.5	• cite the uses of computers in offices.
	Designing	0.5	• describe the uses of computers in designing.
	Space Research	0.5	• explain the uses of computers in space research.
	Publishing	0.5	• list the uses of computers in the publishing industry.
5. Let's Paint!	Starting Paint	0.5	The student should be able to: • open Paint. • recognise the components of the Paint window.
	Closing Paint	0.5	• close the Paint window.
	Using Tools	2	• use the Pencil tool, the Brushes tool, and the Line tool. • distinguish among the different types of brushes available in Paint.
	Saving a Drawing	1	• save a drawing.
	Starting a New Drawing	1	• start a new drawing.
	Opening an Already Saved Drawing	1	• open an already saved drawing.
6. Drawing in Paint	Curve Tool	0.5	The student should be able to: • use the Curve tool.

*The topic-wise allocation of periods for each chapter may vary, as per the individual class requirements.

Chapter Title	In This Chapter	Topic-wise Allocation of Periods	Learning Outcomes
	Shapes Group	1	• draw different shapes using the Shapes tool.
	Polygon Tool	0.5	• use the Polygon tool.
	Eraser Tool	0.5	• recall how to erase the unwanted parts of a drawing.
	Fill with color Tool	1	• fill color in an enclosed figure using Fill with color tool.
	Text Tool	1	• write text in Paint.
	Select Tool	1	• select rectangular or irregularly shaped areas of a drawing in Paint.
	Magnifier Tool	0.5	• zoom in on a part of the drawing.
	Color Picker tool	1	• recognise the Color Picker tool and pick up a color from a drawing in Paint and use it elsewhere in the drawing.
7. Let's Start Word 2013	Word Processing Software	0.5	The student should be able to: • explain what a word processor is and what its uses are.
	Starting Word 2013	0.5	• open Word 2013.
	Parts of the Word 2013 Window	1	• identify and describe the various parts of the Word 2013 window.
	Creating a New Document	1	• create a new document. • explain how to save a document.
	Opening a Document	1.5	• open an already saved document. • change the font size and the font colour. • close a Document.

*The topic-wise allocation of periods for each chapter may vary, as per the individual class requirements.

LESSON PLANS*

Chapter 1   A Smart Machine

Time for each lesson: 40 minutes

Resources: a laptop, or computer lab, tablet computer

Introduction (5 minutes)

Begin the first class by asking a few general knowledge questions from the students which they can answer easily. When a student gives a correct answer, say that he/she is very smart. Also encourage students who do not give the correct answers.

Explanation (25 minutes)

Elicit responses from the students about the uses of computers. After a brief discussion, let them read from the text and encourage them to look at the illustrations carefully. There is a formative assessment task on page 2 which should be completed as they read on. Elaborate on the fact that just like humans, computers are also smart, and hence they are called smart machines.

Divide the class into two groups. One group could list the tasks that can be performed by computers and the other group could list the tasks performed by humans. Highlight the fact that computers are used everywhere including homes, schools, offices, banks, hospitals, airports, shopping malls, etc. Children can play games on their home computers, as well as use them to study.

Demonstrate the difference between a desktop computer, a laptop, and a tablet. Students might notice the difference in size. Demonstrate how to start and shut down a computer.

You can assign any of the following tasks for classwork and homework.

- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:

- describe the computer as a machine which helps us do various tasks.
- differentiate between humans and computers.
- classify computers based on size.
- identify the different types of computers.
- start and shut down a computer in the correct way.

Conclusion (10 minutes)

Encourage students to give you a recap of the main points they have learnt in the lesson. Discuss computer manners and read through the tricky terms, given at the end of the chapter.

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*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

Chapter 2   Parts of a Computer

Time for each lesson: 40 minutes

Resources: computer lab, dummy computer, the names of parts of a computer written on separate pieces of paper

Introduction (5 minutes)

If possible, conduct this lesson in a computer lab, otherwise, you can have a dummy computer in class to demonstrate the various parts of a computer. Before explaining the parts of a computer, elicit responses from the students about the different parts of a television. They might mention its screen and speakers. Listen to their responses and ask them to read the chapter.

Explanation (25 minutes)

Ask a student to come forward and hold a piece of paper with 'monitor' written on it. Similarly, ask three more students to step forward and hold pieces of paper with 'CPU cabinet', 'Keyboard', and 'Mouse' written on them. Point to these four students and explain to the class that they represent the four main components of a computer.

Stick these pieces of paper on the soft board and as the lesson progresses, add more pieces of papers with the words 'Printer', 'Speakers', 'Microphones', 'Headphones', 'CD', Hard Discs', 'USB', etc. written on them. This way you can create a word wall for all the parts of a computer.

You can assign any of the following tasks for classwork and homework.
- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:
- define a computer system and list the four main parts of a computer.
- Identify and describe the monitor and recognize its resemblance with a television.
- identify the CPU cabinet and describe what it contains.
- recognise the keyboard and explain its uses.
- identify the mouse and explain its uses and of a mouse pad.
- recognise the printer and describe the use of a printer.
- define a printout.
- recognise the microphone and speakers and describe their uses.
- explain input and the output devices using examples.
- recall what the acronym UPS stands for and describe its uses.
- identify floppy disks, hard disks, CDs and DVDs, and pen drives.
- explain what a hard disk is and what it is used for.
- differentiate between a CD and a DVD, and its advantage over a CD and DVD.

Conclusion (10 minutes)

Encourage students to refer to the word wall and describe each component; as a recap of the lesson. Also discuss computer manners and read through the tricky terms, given at the end of the chapter.

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*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

Chapter 3   Keyboard

Time for each lesson: 40 minutes

Resources: a laptop with a mouse attached to it, pictures of different types of keyboards

Introduction (5 minutes)

This lesson can easily be conducted in the classroom, if the computer lab is not available. Begin the lesson by asking whether a keyboard is an input or an output device. You can show pictures of different types of keyboards and ask students if they can spot any differences between them. Encourage them to make inferences based on the sizes and shapes of different keyboards.

Explanation (25 minutes)

Let students read from the textbook and observe the illustrations carefully. As they read, demonstrate where each key is located and how it is used. Let students apply knowledge of what they learnt by using each of these keys. As the lessons progress, assign any of the following tasks for classwork and homework.
- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:

- recognize the cursor control keys and explain their use.
- identify the BACKSPACE key and describe its use.
- recognise the DELETE key and explain its use.
- differentiate between the BACKSPACE key and the DELETE key.
- identify the CAPS LOCK key, recall its use, and work with it.
- recognise the NUM LOCK key, identify the numeric keypad, and explain the use of the NUM LOCK key.
- identify the Shift Key and explain its use.
- identify the TAB key and explain when it is used.
- identify the ESC key, describe its use, and work with it.

Conclusion (10 minutes)

Encourage students to give a recap of the lesson. Also discuss computer manners and read through the tricky terms, given at the end of the chapter.

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*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

Chapter 4   Uses of Computers

Time for each lesson: 40 minutes

Resources: sticky notes for students to write on, a chart paper, a laptop

Introduction: (5 minutes)

Begin the lesson by asking students if they are aware of any place where computers are used. Ask them to write their responses on a sticky note and paste it on the chart paper pinned to the soft board in class. This will be their word wall to which they may refer to at the end of the lesson.

Explanation: (25 minutes)

Let students read from the textbook. Demonstrate how records are maintained by a simple activity in class. Ask students to give their names and roll numbers or dates of birth and type this data in Notepad, WordPad, MS Word, or MS Excel. Save the file and close the document. Explain to students that now the record of their names and birthdays have been maintained in the computer.

Talk about different professions and discuss how computers might be used in each of these. The illustrations in the chapter can be discussed in class and students should be encouraged to give their input. Give them examples from their surroundings where computers are used. As the lessons progress, assign any of the following tasks for classwork and homework.

- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:

Describe or list the uses of computers in schools, railway stations, and airports.

- define animation and describe how computers are used in making films.
- explain the uses of computers in banks and describe what an ATM machine is.
- recount the uses of computers in hospitals
- cite the uses of computers in offices.
- describe the uses of computers in designing.
- explain the uses of computers in space research.
- list the uses of computers in the publishing industry.

Conclusion: (10 minutes)

Encourage students to give a recap of the lesson. Also discuss computer manners and read through the tricky terms, given at the end of the chapter.

*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

Chapter 5   Let's Paint

Time for each lesson: 40 minutes

Resources: computer lab

Introduction: (5 minutes)

It is recommended that this chapter should be taught in the computer lab so that students could get hands on experience of this program. Elicit responses from students about the things they like to paint on paper. Discuss the material used for painting. Inform them that they can even paint on computer, without using actual paint, brushes, paper, etc.

Explanation: (25 minutes)

Let students read from the chapter and as they do so, demonstrate how to access Paint software on the computer. Demonstrate how to use the different tools and save their document. They should be allowed to demonstrate what they have learnt through Practice time.

As the lessons progress, assign any of the following tasks for classwork and homework.

- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:

- open Paint.
- recognise the components of the Paint window.
- close the Paint window.
- use the Pencil tool, the Brushes tool, and the Line tool.
- distinguish among the different types of brushes available in Paint.
- save a drawing.
- start a new drawing.
- open an already saved drawing.

Conclusion: (10 minutes)

Encourage students to give a recap of the lesson. Also discuss computer manners and read through the tricky terms, given at the end of the chapter.

*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

Chapter 6   Drawing in Paint

Time for each lesson: 40 minutes

Resources: computer lab

Introduction: (5 minutes)

This chapter is an extension of the pervious chapter. Quiz students about the basic Paint tools they have learnt and practised in the previous lessons. This chapter might take about seven periods to get completed.

Explanation: (25 minutes)

Make sure that students explore all the options and demonstrate their drawing skills through Practice time. Encourage them to hold the mouse in the correct way. As students will be working in groups, you will get a chance to encourage peer learning. As the lessons progress, assign any of the following tasks for classwork and homework.

- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:

- use the curve tool.
- draw different shapes using the Shapes tool.
- use the Polygon tool.
- recall how to erase the unwanted parts of a drawing.
- fill color in an enclosed figure using Fill with color tool.
- write text in Paint.
- select rectangular or irregularly shaped areas of a drawing in Paint.
- zoom in on a part of the drawing.
- recognise the Color picker tool and pick up a color from a drawing in Paint and use it elsewhere in the drawing.

Conclusion: (10 minutes)

Encourage students to give a recap of the lesson. Also discuss computer manners and read through the tricky terms, given at the end of the chapter.

*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

Chapter 7   Let's Start Word 2013

Time for each lesson: 40 minutes

Resources: laptop with MS Word installed, or computer lab, any school newsletter or a print out of an MS Word document

Introduction: (5 minutes)

Show the printed document to students and tell them that the document was typed in a software called MS Word. It is recommended to conduct this lesson in the computer lab but the introductory class can be taken in class using laptop.

Explanation: (25 minutes)

Let students read from the chapter and for the introductory class, you can demonstrate how to open a new document on the laptop. Identify the main parts of Word 2013 and describe the uses of each. You may refer to the Help section for further teaching support in class. This chapter may take about five periods to be completed. Take students to the computer lab where they will learn in groups through peer learning. As the lessons progress, assign any of the following tasks for classwork and homework.

- Exercises
- In the Lab
- Group Project
- Worksheets

Assessment

Students' learning should be assessed on Bloom's taxonomy model, as well as on their class participation, enthusiasm, inquiry, and team work. At the end of the lesson, students will be able to:

- explain what a word processor is and what its uses are.
- open Word 2013.
- identify and describe the various parts of the Word 2013 window.
- create a new document.
- explain how to save a document.
- open an already saved document.
- change the font size and the font color.
- close a Document.

Conclusion: (10 minutes)

Encourage students to give a recap of the lesson. Also discuss computer manners and read through the tricky terms, given at the end of the chapter.

*. The lesson plan for each chapter has a flexible structure. It can be split up into daily lesson plans to suit various classroom needs.

ANSWER KEY TO THE COURSEBOOK

- The complete Answer Key to the Coursebook Exercises has been given here including that for the In the Lab questions, Group Projects, and Worksheets.

- These are only suggested answers, and variations are possible especially for the open-ended questions, such as the descriptive questions, and those of In the Lab. Teachers may use their discretion while checking the answers provided by the students, and give them marks based on conceptual accuracy and conceptual clarity.

Chapter 1   A Smart Machine

1. d, b, c, a

2. a. 3   b. 2   c. 1

3. Desk Computer

4. a. pictures   b. desktop   c. UPS   d. fingers   e. Start

5. a. T   b. F   c. T   d. T   e. F

6. a. iv. all of these   b. ii. Personal Computer   c. iii. icons

    d. iv. can take decisions   e. iii. never make mistakes

7. a. A computer is an electronic machine and therefore needs to be operated in the correct manner. It is very important that you open and shut down the computer properly. For example, directly turning the power off can damage the computer and you can also lose information in the process.

    b. If you describe something or someone as an icon, it implies that they are important as a symbol. Ollie, the dog had grown old. He just lay there in the backyard of the house at the edge of the forest. An icon in computer language refers to a picture on a computer screen representing a computer program. Students might mention different icons.

    c. The following tasks can be done by computers.
    - A computer can do the same thing repeatedly without getting bored.
    - Computer have a very good memory and remember all the information unlike humans who may forget at times.
    - A computer can work much faster than humans.

    It is important to understand these differences so you can know when it is beneficial to use a computer for tasks rather than asking a human being.

    d. I would like to have a desktop for the following reasons:
    - It is easier to have a desktop computer, so different family members can access the equipment.
    - A desktop is cheaper than a laptop.

    I would like to have a laptop for the following reasons:
    - It is easy to carry around, as it is smaller and is lightweight.
    - It can operate from a battery instead of a power cable.
    - It is small enough to use on your lap.

    I would like to have a palmtop for the following reasons:
    - I can carry it in my pocket.
    - It is very handy and convenient.
    - It runs on a battery instead of a power cable.

    I would like to have a tablet for the following reasons:
    - It is convenient to carry.
    - It has a touch screen so you can use it with your fingers or a pen-like device.
    - It runs on a battery instead of a power cable.

IN THE LAB

1. The students should be encouraged to make the required list.

2. The teacher should help the students form groups and guide them through the task.

3.

Computers	Human beings
A computer can work very fast.	Humans cannot work as fast as a computer.
A computer does not make a mistake.	Humans can make mistakes.
A computer never gets tired.	Humans do get tired after some time.
A computer can do the same work over and over again. It never gets bored.	Humans may sometimes get bored doing the same work over and over again.
A computer has a very good memory. It never forgets the information stored in it.	Humans can forget the information stored in their minds.
A computer does not have any feelings, and it cannot take decisions.	Humans have feelings and they can take decisions.

4. The teacher can demonstrate how the icons can be moved by using the drag-and-drop method. Students should be able to select a certain icon and move it according to their choice.

GROUP PROJECT

Advantages of Desktop PC:	Disadvantages of Desktop PC:
• more memory space • more powerful • easy to upgrade • requires no battery • cheaper than laptops and tablets • lower risk of theft	• needs separate keyboard, mouse, and monitor • heavier • noisier • not handy
• easy to carry • small, lightweight • powered by battery • portable • can be used by someone in a wheelchair who finds access to a desk more difficult	• more expensive • easy to steal or lose
• convenient size • portable • reasonably-priced • can be used by people with a variety of disabilities	• too small a screen size • no keyboard • less memory

Advantages of Desktop PC:	Disadvantages of Desktop PC:
• small, lightweight • can connect keyboard to a tablet • multi-touch screen • can connect to internet • long battery life • accessible software allows people with severe communication issues to be able to take an active part in learning	• easy to damage • small screen • high cost • cannot attach to CDs and DVDs

Chapter 2   Parts of a Computer

1.
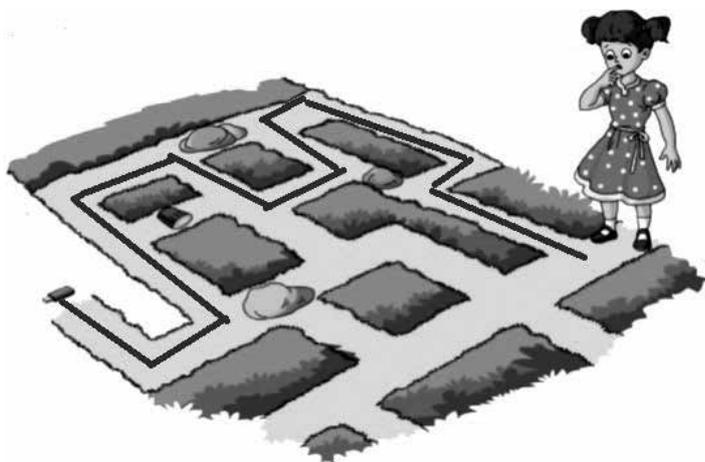
2. a. F   b. F   c. F   d. T

3. a. iv. all of the above   b. iii. Microphone   c. iv. UPS   d. ii. Mouse

4. a. Monitor, CPU, keyboard, and mouse are the four main parts of a computer.

b. Input devices are the ones that are used to enter data into the computer. Output devices are the ones that are used to give output such as text, images, etc.

c. A mouse is used to point at things on the computer. It is also used to click and drag things on the computer monitor.

d. Speakers and headphones

e. CD, DVD, and 'USB'

f. The design of the keyboard and mouse could be of a standard shape but have a different size. The keys could be larger, and of different colours. The shape of the keyboard could be changed too. Children could experiment with different shapes of keyboard designs to see which works best. The mouse could be a fun design to attract younger people, such as an animal head shape or be brightly coloured. For an elderly person the mouse could take on the shape of a classic car or a flower or anything else that makes it a fun experience to use. Within the design must always be the basic operating functions for both keyboard and mouse.

g. The monitor is a crucial part of the computer because it displays the information on the screen. The mouse is a pointing device and helps us to select things on the screen that are visible only when the monitor is connected to it. The keyboard has alphabet, number, and other keys that we use to enter words and other data into the computer that are visible on the monitor. It is important that all these parts of the computer work in unison as they all depend on each other.

IN THE LAB

1. The students should be encouraged to draw a computer and label its parts.

2. Instruct the students to create a cartoon strip. Tell them they can use different images of input and output devices and design them with faces or emoticons to create their own cartoon characters. Demonstrate the use of speech bubbles by drawing them on the board. Explain that speech bubbles are used most commonly in comics to present the speech or thoughts of a given character in the comic.

GROUP PROJECT

Here are some suggestions for what the answers for each storage device may be:

Storage Device	Advantages	Disadvantages
HARD DRIVE	• cheapest option to save large quantities of data • extensive storage available on a single device • External hard drive is portable. • acts as a back up	• can get damaged by sunlight, dust or liquids • If stolen, all data could be accessed easily, if not password protected.
CDs/CDRoms	• small, portable • data storage in a large capacity • can store audio and video data • can be mass produced at a cheaper price • older computers have cd drives	• take up more physical space than a USB • breakable; can be scratched • cannot store as much as a hard disc
DVDs	• small, portable • large storage capacity • ideal to store good quality audio and video • can be mass produced at a cheaper price	• DVDs do not work in CD drives. • can be scratched or broken • cannot store as much as a hard disc
USB	• small, lightweight • easy to transport • does not get spoilt easily • can store all data in a large capacity	• cannot store as much as a hard drive • slower than internal hard disk

WORKSHEET 1

1.

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

2. a. USB   b. printer   c. microphone   d. CPU   e. mouse

3. a. Monitor   b. CPU cabinet   c. Keyboard   d. Mouse

4. Tick mark B and D. Cross mark A and C.

   The correct labels are:

   A. Monitor

   B. Speaker

   C. CD Rom

   D. Monitor

Chapter 3   Keyboard

1. a. Cursor   b. Arrow keys   c. Tab key   d. Esc key   e. Delete key

2. a. keyboard   b. control   c. backspace   d. ON   e. shift

3. a. The keys used for typing @@$$##**&& are Shift + 2, Shift + 4, Shift +3, Shift + 8 and Shift + 7. Color these in blue.
   b. Colour the keys T, I, G, E, R in yellow.
   c. Colour the Backspace key in red.
   d. Colour the Delete key in green.

4. a. i. TAB   b. iii. Shift   c. ii. NUM LOCK   d. ii. CAPS LOCK   e. iii. 4

5. a. The tab key is used to move the cursor to the right by many spaces.
   b. The function of the alphabet keys and number keys are to enter letters and numbers, respectively. The

SPACEBAR creates a space between letters and words, whereas the ENTER key moves the cursor to the next line.

c.   The cursor control keys, also called the arrow keys, perform similar functions to the mouse. With the use of these keys, you can move a page up, down, right, and left. The arrows show what direction the cursor is moving in.

d.   The Backspace and the Delete keys are used to erase words. The Backspace key allows you to erase anything behind the cursor and the delete key allows you to delete anything in front of the cursor. It is useful to have different ways of doing the same task because it can improve the speed of operation.

e.   i.   NUM LOCK and CAPS LOCK
Both are LOCK keys. NUM LOCK allows you to type numbers only. CAPS LOCK allows you to type letters in capital form only. You would use the NUM LOCK keys when you want to do calculations as you only need to type numbers. Similarly, if you had to fill in a form in capital letters, you would use the CAPS LOCK key.

ii.   SPACEBAR and TAB
Spacebar key is used to create space between words or letters, whereas the Tab key is used to move the cursor at set intervals. The Spacebar key is used the most. The Spacebar key is used to help lay out the work on screen in a neat and orderly fashion. The Tab key is useful for moving a whole paragraph to the right and therefore lining up the paragraphs in a neat manner.

f.   The Escape key will be used to close the Menu bar.

IN THE LAB

1.   To write the names of five fruits you like, in WordPad:
a.   In capital letters :
i.   Open WordPad. Open a new document.
ii.   Press the Caps Lock key on.
iii.   Type the names of five fruits.
b.   In small letters:
i.   Open WordPad. Open a new document.
ii.   Press the Caps Lock key off.
iii.   Type the names of the fruits.

2.   To write in WordPad or Notepad:
a.   Open WordPad or Notepad. Open a new document.
b.   Type the names of your family members, your school's name, class teacher's name, and the four parts of a computer.
c.   To save the document, in the **File** tab click Save As.
d.   Select the folder where you want to save the document. Type the file name and click Save.

Instruct the children to use both the letter and number keys. Remind them that they can use the Caps Lock key to write the first letter of all proper nouns.

GROUP PROJECT

A pangram is a sentence containing every letter of the alphabet. Typing a pangram is an excellent way of doing typing practice because your fingers move over the whole keyboard. Pangrams also make children familiar with the letter keys. Instruct the children that they can type out this sentence in different fonts for practice.

You can read out the following story to the children to generate ideas and to inspire them to think and write their own stories.

'Ollie, the dog had grown old. He just lay there in the backyard of the house at the edge of the forest. All day, he napped, only opening his eyes when he heard his master shuffling along. His master had grown old and did not leave the house much. He left the house at mealtimes to throw Ollie some bones and leftover scraps.

Late one night, Ollie heard a scraping sound. He was too lazy to care. The scraping continued till finally the rusty lock on the gate gave way and flew open. The brown fox pushed the wooden gate and scampered into the backyard. Ollie saw him but he had become fat and slow. The fox quickly jumped over the lazy dog. He had come in search of food……'

___

Chapter 4   Uses of Computers

1.

							S	
		H					C	
B		O					H	
R A I L W A Y S	T A T I O N
N		P					O	
K		I	P U B L I S H E R S
		T						
		A N I M A T I O N
E M A I L		T	
							M	
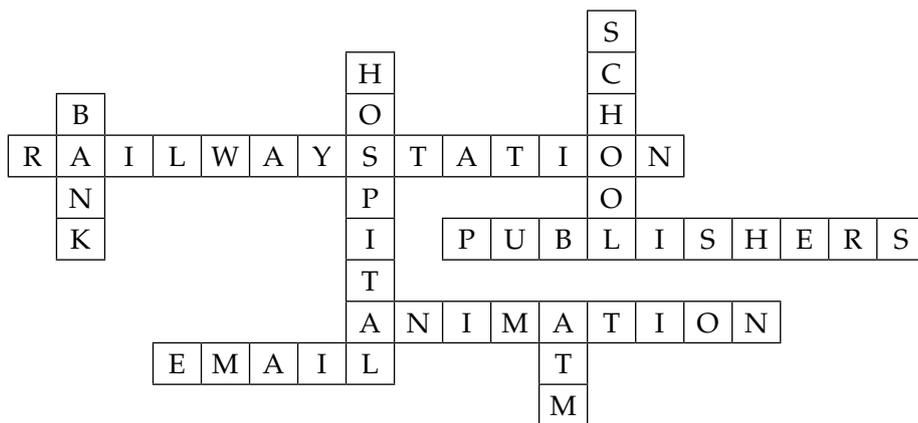
2. a. record   b. Animation   c. Teller   d. E-mail   e. school

3. a. T   b. T   c. F   d. F   e. F

4. a. Animation   b. E–mail   c. Banks   d. Publishing house   e. ATM

5. a. Computers are used in schools for making time tables. They are also used to keep details of fees, students, and teachers.
   b. E-mail is a way of sending messages to other people by means of computers.
   c. Computers are used in hospitals to keep records of patients. They also help doctors in performing operations.
   d. Computers are used in the school office, classrooms, library, and staff room. They are used to create timetables and circulars in staff offices, maintain fee payment records, exhibit slide shows as well as a teaching aid in are also used at the information desk to find out the location of shops within the mall. They are used in shops and supermarkets for inventory purposes and at the checkout point. Most malls have ATMs (which are run by computers) for people to withdraw money.
      • Computers also assist in preventing theft by storing security camera footage and data.
      • Computers are used at airports and train stations to book and issue tickets and look up travel schedules.
   f. Learning computer skills is very important because computers are used in all areas of our personal and professional lives. Computer literacy is considered a very important skill for employees to possess because present-day operations are all linked to computer usage.

g. Computer skills help enhance students' learning. Computers are used to prepare and share assignments, ease communication, and increase knowledge through research. Virtual learning has revolutionised the way teachers can teach and students can learn at their own pace without going to a physical class. Students entering college with computer skills can keep pace with their technologically proficient peers. Bringing computers to the classroom helps ensure students are connected to a whole new world of information, innovation, and research from different parts of the world.

IN THE LAB

1. Collect the tickets and paste them in your notebook or scrapbook.

2. Make a chart on uses of computers in fields such as designing, hospitals, schools, and publishing.

3. You can either distribute questionnaires or conduct interviews. Also, you can make flashcards to play a guessing game where students will guess answers to questions they ask each other. You can give each other points for the correct answers and crown the person with the maximum number of correct answers. Friendly competitions are so much fun! Lists are always useful as they can be quickly seen by everyone who needs the information quickly.

GROUP PROJECT

Students can be given the following ideas for this project.

1. Teachers have access to computers or the Internet in their classroom:
    • to gather information for lessons
    • to set various teaching objectives
    • to create instructional materials
    • to access sample lesson plans
    • to log into various research sites
    • to communicate with colleagues
    • for administrative record keeping

2. Computers are used in different ways by physicians as well as staff personnel:
    • to store patient related data
    • to maintain patient records
    • to carry out X-rays and other procedures
    • to monitor a patient's health
    • to be used for medical research purposes
    • by using minimally invasive tools such as cameras to relay images from inside the patient's body to the doctors
    • to reduce the use of paper and hence reduce financial costs

3. Architects use computers:
    • to create presentations of building proposals
    • to make 2-D and 3-D models
    • to create brochures, slideshows and other multimedia communication
    • to act as an aid in designing different projects
    • to communicate with clients
    • to finalise business documents

- to keep records
- for research purposes

4. Computers are used in banks:
   - to store data relating to all customer accounts
   - to give an account of different products and services the bank offers
   - to communicates with other branches in the city and around the world
   - to check account balances
   - to withdraw cash
   - to deposit cash and checks
   - to make transfers between accounts
   - to make loan payments

5. Computers are used in the airline industry:
   - to store data relating to all the passengers and flight schedules
   - for ticketing purposes
   - to control aeroplanes from the control tower

WORKSHEET 2

1.

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

2.

		B		
		A		
E		C		T
S		K		W
C	A	P	S	L	O	C	K

			P				
			A				
			C	U	R	S	O	R
D	E	L	E	T	E		

3. a. * b. @ c. C d. Dua Jibran e. MONITOR

Chapter 5 Let's Paint!

1. a. Brushes b. Color 2 c. Size d. straight e. Save

2. a. iv. both i and ii b. iv. all of these c. iii. Exit d. iii. Size e. ii. Shapes

3. a. The Pencil tool is used to draw both straight and curved lines.
   b. To select a background colour, click the **Colors** group. Click **Color 2** and choose a colour.
   c. To change the thickness of a line, click the down arrow under the **Size** option. Select the size.
   d. The Save As dialog box appears when one saves the drawing for the first time.
   e. The Pencil, Brush, and Line tools can all be used to draw straight and curved lines.
   f. The Brush tool has different artistic brushes which makes it possible to create special effects on curved lines.
   g. Yes, you need to save files with the appropriate names in order to find them easily e.g. a drawing of my classroom could be saved as 'Artwork of my classroom'.

IN THE LAB

1. To draw a boat:

   a. To draw using the Line tool:
     i. Select the **Line** tool.
     ii. In the **Colors** group click **Color 1** and select the brown colour.
     iii. Click the down arrow under the **Size** option and select a size.
     iv. Click inside the drawing area and drag the mouse to draw the shape.

   b. To colour the boat:
     i. Click the **Brushes** tool and then select **Airbrush.**
     ii. Click **Color 1** and then select the yellow colour.
     iii. Fill in the bottom of the boat.
     iv. Click **Color 1** and then select the red colour.
     v. Fill in the mast of the boat.

   c. To write Boat:
     i. Click the down arrow of the **Brushes** tool and select **Calligraphy brush 1.**
     ii. Click **Color 1** and select the blue colour.
     iii. Click and drag inside the drawing area and write 'BOAT'.

    d. To save the drawing:
       i. Go to the **Paint** button and click the **Save** option.
       ii. Select the drive and the folder in the **Save As** dialog box.
       iii. In the filename box type BOAT.
       iv. Click the **Save** button.

2. To draw the balloons:
    a. To draw using the **Pencil** tool:
       i. Select the Pencil tool.
       ii. Click **Color 1** and select a colour.
       iii. Click the down arrow under the **Size** option and select a size.
       iv. Click inside the drawing area and drag the mouse to draw the shape.

    b. To draw the threads:
       i. Select the **Pencil** tool.
       ii. Click **Color 1** and then select the red colour.
       iii. Click the down arrow under the **Size** option and then select the thickness of the line.
       iv. Click inside the drawing area and drag the mouse to draw the threads of the balloons.

    c. To colour the balloons:
       i. Click the **Brushes** tool and then select **Airbrush.**
       ii. Click **Color 1** and then select a colour of your choice.
       iii. Fill in the balloons with different colours.

    d. To save the drawing:
       i. Go to the **Paint** button and click the **Save** option.
       ii. Select the drive and the folder in the **Save As** dialog box.
       iii. In the filename box type Balloons.
       iv. Click the **Save** button.

The tools used are: the **Pencil Tool** and the **Brushes Tool**.

3. To draw an Eid Card:
    a. To draw using the Line tool:
       i. Select the **Line** tool.
       ii. Click **Color 1** and select the brown colour.
       iii. Click the down arrow under the **Size** option and select a size.
       iv. Click and drag on the drawing area to draw the shape.

    b. To colour the Eid Card:
       i. Click the **Brushes** tool and then select **Airbrush.**
       ii. Click **Color 1** and then select a colour of your choice.
       iii. Fill in the Eid Card.

    c. To save the drawing:
       i. Go to the **Paint** button and click the **Save** option.
       ii. Select the drive and the folder in the **Save As** dialog box.
       iii. In the filename box type Eid Card.
       iv. Click the **Save** button.

4. Open the program so you are in the drawing area.
    - In the Tools box, click the pencil tool.
    - Choose a colour from the colour box.
    - Use the pencil tool to draw a castle freehand.
    - Click the line and select a thickness for the line.
    - Create windows for the castle.
    - Use the paint and colour tools to colour the castle in different colours.

You can use one colour in different shades by double clicking any colour patch on the palette; you can further choose a different shade of that colour.

GROUP PROJECT

Instruct the students to do the following:

- Open the Paint program so you are in the drawing area.
- In the Tools box, click the Line tool.
- Choose a colour from the colour box.
- Click the line and select a thickness for the line.
- Draw the first object that you think is going to be the center of attention of this scene.
- Using Pencil and Shape tools, draw other objects.
- Use the paint and colour tools to colour the objects in different colours.

It might be difficult to draw the crowd in detail as there are so many expressions to capture. An adaptation might be to create a background blur of people using random colours and outlines of faces rather than detailed 'portraits'.

Completing this task on screen means that the finished image can be printed out; it can be enlarged or alternatively cropped to focus on specific images within the scene. It is quicker and easier to cover a wider area of the picture quickly on screen rather than drawing by hand on paper.

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Chapter 6   Drawing in Paint

1. a. foreground   b. Shapes   c. Polygon   d. Text   e. Color 2

2. a. ii. Fill With Color   b. iv. Color Picker   c. i. Magnifier tool
    d. ii. Rectangular selection   e. i. Polygon tool

3. a. Rectangles, ellipses, triangles, arrows, and hearts
    b. To select an irregularly shaped part of a drawing:
        i. In the **Image** group, click the down arrow under **Select.**
        ii. Click **Free-form selection**, and then drag the pointer to select that part of the drawing.
    c. You would use different Paint tools to make a birthday card for a friend. You would use the text tool to create a birthday message in different fonts and varied colours.
        For example, if you chose to design a bunch of balloons on the birthday card, these are the steps you would take:
        - Use the Pencil tool to draw balloons.
        - Use the Lines tool to draw strings from the balloons.
        - Click the Size button and decide on the thickness of the line.
        - Use the Colour tool to colour the balloons.

(Teacher's Note: The answer to this question will vary from student to student; hence, no standard answer is suggested.)

d. When drawing lines in Paint, Maria should hold down the left mouse button at the same time as holding down the Shift Key. As the cursor is moved by the mouse, the line on screen will move in 45 degree angle steps rather than one degree at a time.

e. Alena can use the Magnifier tool to zoom closely into the honey bees. This is a useful tool to use because it shows you every part of the drawing area in detail. It helps you decide what to change.

IN THE LAB

1a. To draw a Landscape:

- You can use the **Pencil** tool in the following manner, to draw the landscape:
    i. Select the **Pencil** tool.
    ii. Click **Color 1** and then select a colour.
    iii. Click the down arrow under the **Size** option and then select the thickness of the line.
    iv. Click and drag on the drawing area to draw the shape.

- To draw the sand and the waves in the sea, you can make use of the **Brushes** tool:
    i. Click the down arrow of the **Brushes** tool and select the artistic brush.
    ii. Click the down arrow of the **Size** option and then select the thickness of the brush.
    iii. Click **Color 1** and then select a colour.
    iv. Click and drag to draw.

- To fill color in the shapes, the **Fill with color** tool is used:
    i. In the **Tools** group, click the **Fill with color** tool.
    ii. In the **Colors** group, click **Color 1** and then select a color.
    iii. Bring the mouse pointer onto the drawing area.
    iv. Click inside the shape to fill it with the color selected.

- To save the drawing:
    i. Click the **Paint** button, and then click the **Save** option.
    ii. The **Save As** dialog box appears.
    iii. Select the drive and the folder.
    iv. In the **Save As** dialog box, select the file format you want.
    v. In the **File name** box, type 'Landscape', and then click the **Save** button.

b. To draw an Eid Card:

- To draw the different shapes in the card, use the **Shapes** tool:
    i. In the **Shapes** group, click a readymade shape.
    ii. Click the down arrow under **Size** and select the thickness of the line.
    iii. In the **Colors** group, click **Color 1**, and then click a color.
    iv. Click **Color 2**, and then click a color to fill the shape. Click the down arrow of the **Outline** option and select a line –style.
    v. Click the down arrow of the **Fill** option and select a fill style.
    vi. To draw the shape, click and drag the mouse onto the drawing area.

- To fill color in the shapes, the **Fill with color** tool is used:
    i. In the **Tools** group, click the **Fill with color** tool.
    ii. In the **Colors** group, click **Color 1** and then select a color.
    iii. Bring the mouse pointer onto the drawing area.
    iv. Click inside the shape to fill it with color.

- To save the drawing:
    i. Click the **Paint** button, and then click the **Save** option.
    ii. The **Save As** dialog box appears.
    iii. Select the drive and the folder.
    iv. In the **Save As** dialog box, select the file format you want.
    v. In the **File name** box, type 'Eid Card', and then click the **Save** button.

2. • Use the Pencil tool to draw a pot at the base of your rainbow.
   • Use the Curve tool to draw a curved line from the edge of the pot to the other end. Click the Size button and decide on the thickness of the line.
   • Draw another curved line, slightly smaller beneath the first so it is parallel to the first line.
   • Draw five more curved lines all smaller than the preceding one.
   • Every rainbow has seven colours: to remember the order, remember the term 'VIBGYOR' which stands for Red, Orange, Yellow, Green, Blue, Indigo, and Violet (order of colours of the rainbow in reverse). Use the colours accordingly to colour each curved line. In order to make your work creative, add a house, tree, fields or whatever you please to the picture.

GROUP PROJECT

Students should do the following in their respective groups.
- Use the Line tool to draw a horizon line.
- Use the Shapes group to create an uneven row of connected rectangles.
- Add some rectangles behind the first row.
- Add details, such as windows on the buildings, and triangular or rectangular roofs.
- Use other ready-made shapes to add a round Sun or lightning bolts, thereby creating a beautiful sunset or thunder in the sky.
- Use the color tool to colour the different images in the picture.

Chapter 7   Let's Start Word 2013

1. a. vertical   b. Quick Access   c. Title   d. Minimize   e. Document

2. a. F   b. T   c. T   d. F   e. T

3. a. Vertical ruler and Horizontal ruler
   b. Title bar, Ribbon, Document window, Status bar
   c. To close a document window:
       i. Click the **File** tab.
       ii. The **Info** screen appears. Click the **Close** option in the left pane.
   d. Minimize, Restore Down/Maximize, and Close
   e. Both Word 2013 and Paint are easily available on computers at school and at home. This makes it easy to save documents on a flash drive, and work on them somewhere else. Word 2013, like the Paint program, allows you to create numerous documents, such as calendars and greeting cards. You can add colours, write in a variety of fonts and sizes, and use borders in both software.
   f. The correct order for creating a new Word document is given below.
       • To start Word 2013, click on Start.
       • Click on All Programs which is part of the drop down menu.

- Click on Microsoft Office 2013.
- Click on Word 2013.
- This opens the Word 2013 Start Screen.
- Click on Blank Document to open a fresh new document.

   g. Anum finds it easy to keep a track of the word count in her Word document because the software keeps track of the words used. This can be found in the status bar at the bottom of the file or on the status bar of the review tab.

IN THE LAB

1. To write the given story:

   a. Click the **File** tab and select **New** on the left pane.

   b. Select a blank document. A new document window opens.

   c. Type the given story.

   d. To make the title italics:
      i. Place the cursor to the left of the first character. Press the left mouse button and drag the mouse till the end of the title.
      ii. Release the mouse button. The selected text gets highlighted in blue.
      iii. Click the **Home tab**. In the **Font** group, click on the **Italics** button. The title becomes italicised.

   e. To save the file:
      i. Click the **Save** button on the **Quick Access Toolbar**.
      ii. The **Save As** screen appears with the **Save As** option selected in the left pane.
      iii. In the center pane, select **Computer** and then click **Browse**.
      iv. The **Save As** dialog box appears.
      v. Select the location where you want to save the file.
      vi. Type the filename 'Unity' and click on the **Save** button.

2. a. To start MS Word, click **Start ▶ All Programs ▶ Microsoft Office 2013 ▶ Word 2013**.

   b. From the **Word Start Screen**, select **Blank Document** to create a new document.

   c. A blank document appears on the screen.

   d. Type the topic name in the header.

   e. Write five sentences about the topic.

   f. To save the document just created, follow the steps given below:
      i. Click the **Save** button on the **Quick Access Toolbar**.
      ii. The **Save As** screen appears with the **Save As** option selected in the left pane.
      iii. In the center pane, select **Computer** and then click **Browse**.
      iv. The **Save As** dialog box appears.
      v. Select the location where you want to save the file.
      vi. Type the filename and click on the **Save** button.

3. The environment is endangered by water contamination, pollution, and climate change. The campaign may emphasise the need to work to preserve the planet and protect the environment by doing the following:
   - Plant more trees.
   - Dispose of trash responsibly.
   - Recycle paper, glass, aluminium cans, and plastic.
   - Pack your lunch in a reusable box.
   - Use refillable glass water bottles.
   - Take short showers so you save water.

- Turn off the taps while brushing your teeth or washing your face.
- Turn off the lights and fan when you leave the room.
- Unplug the computer and other electronic devices when not in use.

Develop an action plan to tackle these problems:
- Go to your neighbourhood park or the beach and clean up the trash.
- Organise a clean-up day at your school.
- Create posters explaining how to keep the environment clean; display them in school. Also, distribute posters in your neighbourhood, and among family and friends.
- Plant a fruit or vegetable garden and trees in your school and neighbourhood. Ask your teachers and parents for guidance.

This could be a more effective document than handwriting as it is possible to create an eye catching, informative document that can then easily be printed off and distributed to a number of people or it could be emailed to others and placed on the school website. Therefore the message can reach more people quickly.

GROUP PROJECT

Make sure the children observe the roads carefully and safely. Tell them to count how many cars or other four-wheelers they see. Did they see any two-wheelers or any construction vehicles such as a crane? How many wheels did the construction vehicles have? Create a list of the vehicles seen. They can make columns and divide them by the number of wheels they had.

Divide the class into four groups. Instruct each group to choose one of the following:
- the road on a weekday morning on the way to school
- the road on a weekday afternoon returning home from school
- the roads on a weekday night when you go to the supermarket
- the roads on a Sunday afternoon

Four different lists should be created for comparison and analysis. The students should find out that at what time of the day were there more cars on the road; were there more two-wheelers on the weekend; were there any construction vehicles on the road at night; which vehicles were not seen on the weekend; were there more trucks in the morning or in the afternoon. This might lead to a discussion on road safety and being safe on the journeys to and from school.

WORKSHEET 3

1. a. Fill with color   b. Eraser   c. Magnifier   d. Polygon Tool

2. a. New   b. Open   c. Save   d. Brushes tool   e. Line tool   f. Size button

3. a. File tab   b. Title bar   c. Close button   d. Minimize   e. Ribbon
    f. Word 2013

4. a. v.   Quick Access Toolbar
    b. iii. Vertical Scroll Bar
    c. i.   Horizontal Scroll Bar
    d. ii. Horizontal Ruler
    e. iv. Vertical Ruler

WORKSHEETS

- Worksheets have been provided for all the chapters of the course book.
- Each worksheet is of 10 marks and is recommended as a formative assessment paper.
- It is possible to use these worksheets as they are by photocopying them in magnified size (120% approx.) and distributing to the students.
- The questions in the worksheets may also be used as samples to create your own additional worksheets.
- They are also available as printable documents in **digital resources.**

Chapter 1   A Smart Machine

1. **Form the correct words from the given jumbled words:**   **3 marks**

   a. K S E T P D O
      Hint: This is a kind of computer kept on a desk.

   b. N S C O I
      Hint: These are the small pictures that appear on the desktop.

   c. T R A S T
      Hint: This is a button present at the bottom left corner of the desktop.

2. **Look at the following pictures carefully and name them**   **3 marks**

   a.   b.   c.

3. **Look at the following pictures and encircle the words in the given grid:**   **4 marks**

   (a)   (b)   (c)   (d)

D	E	S	K	T	O	P	T	A	P
C	H	T	E	J	o	C	Z	H	A
I	U	L	A	P	T	O	P	J	L
C	J	D	A	E	C	V	R	Y	M
O	U	A	M	H	T	O	P	R	T
N	O	J	O	S	H	L	U	G	O
S	R	U	D	U	T	R	H	N	P

Chapter 2   Parts of a Computer

1. Form the correct words from the given jumbled words: **3 marks**

   a. O P Y P L F
      Hint: It is a square-shaped storage device hardly used nowadays.

   b. E K R P E A S
      Hint: It is used to listen to recorded sound or music.

   c. I C D E E V
      Hint: It is an object used to perform a particular task.

2. Label the devices of a computer that you can see in the given picture: **3 marks**

| (a) | (b) | (c) |

3. Look at the following pictures and encircle the words in the given grid: **4 marks**

| (a) | (b) | (c) | (d) |

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

Chapter 3   Keyboard

1.   Form the correct words from the given jumbled words: **3 marks**

   a.   U R S C R O
     Hint: It shows the position of the next letter or number to be entered.

   b.   S B K C A E C A P
     Hint: This key erases anything typed on the left side of the cursor.

   c.   E T E L D E
     Hint: This key erases anything typed on the right side of the cursor.

2.   In the given picture of the keyboard colour: **3 marks**

   i.   the DELETE key with Red colour
   ii. the BACKSPACE key with Green colour
   iii. the SPACEBAR with Yellow colour
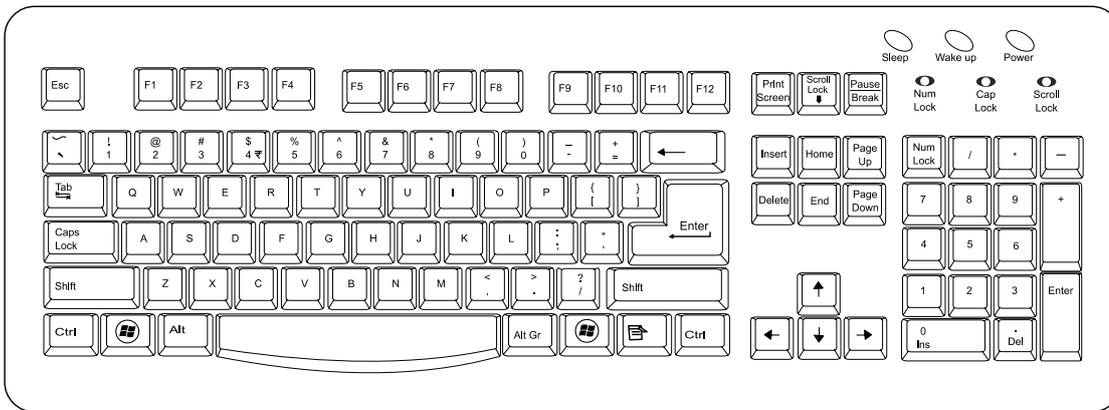
3.   Identify the pictures and encircle their names in the given grid: **4 marks**

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

(a)

(b)

(c)

(d)

Chapter 4   Uses of Computers

1. **Form the correct words from the given jumbled words:**   **3 marks**

    a. D R C O E R
        Hint: It is a collection of information about a particular person or object.

    b. I M A N T I N O A
        Hint: It is the process of making lively cartoons as seen on television.

    c. KANB
        Hint: Computers help store details of people's money accounts here.

2. **Look at the pictures carefully and write the names of the activities being done by computers.   4 marks**
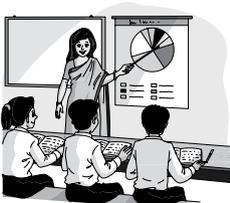
(a)   (b)   (c)   (d)
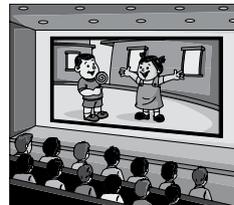
3. **Look at the pictures and find the names of the activities in the grid given below:**   **3 marks**

(a)   (b)   (c)

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

Chapter 5   Let's Paint!

1. **Form the correct words from the given jumbled words:**   **4 marks**

    a. I B R N O B
        Hint: It contains the tools you can draw with.

    b. O L T O L C I E P N
        Hint: It is used for free hand drawing.

    c. T P I A N
        Hint: It is a fun program by Microsoft used to draw and color objects.

    d. M E H O
        Hint: This tab contains the various tools used for drawing objects in Paint.

2. **Look at the pictures carefully and name them:**   **2 marks**

    (a)   (b)

3. **Look at the pictures and encircle their names in the given grid:**   **4 marks**
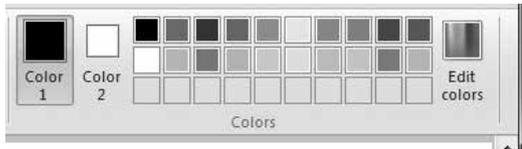
    (a)   (b)   (c)
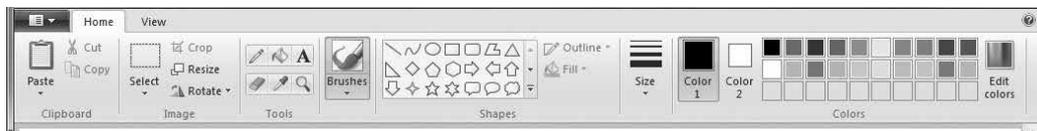
    (d)

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

Chapter 6   Drawing in Paint

1. **Form the correct words from the given jumbled words:**   **3 marks**

   a. R S E A R E O T O L

   Hint: It is used to rub out any part of the picture.

   b. O G N P Y L O T O L O

   Hint: It is used to make a custom shape with any number of sides.

   c. G M A Y F I N

   Hint: This tool is used to make something look bigger than it actually is.

2. **Identify the tools given below carefully:**   **4 marks**

   (a)   (b)   (c)   (d)]

3. **Look at the pictures of the tools given below and encircle their names in the given grid:**   **3 marks**

   (a)   (b)   (c)

C	U	R	V	E	T	O	O	L	H	I
L	I	T	E	R	A	T	U	R	E	S
H	E	L	L	O	W	O	R	L	D	T
P	O	L	Y	G	O	N	T	O	O	L
T	H	I	N	K	I	N	G	Y	M	O
D	I	S	H	A	P	E	S	A	T	R

Chapter 7   Let's Start Word 2013

1. **Form the correct words from the given jumbled words:**   **3 marks**

a. R B A U S A T S T

   Hint: It is present at the bottom of the Word 2013 window and displays information about the current document.

b. BAETIFL

   Hint: It is located at the upper left corner of the Word 2013 window.

c. L P E H

   Hint: This button assists the user in using Word.

2. **Label the parts of the Word 2013 window shown in the figure given below: 4 marks**
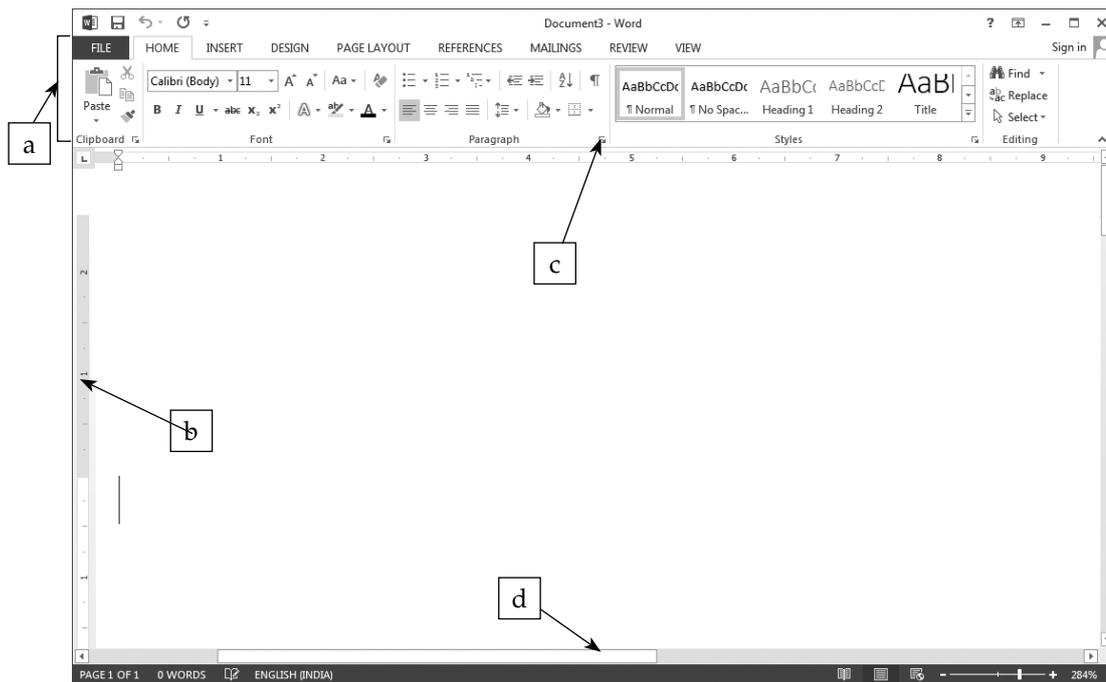
3. **Look at the figures given below and encircle their names in the grid:**   **3 marks**

(a)   (b)
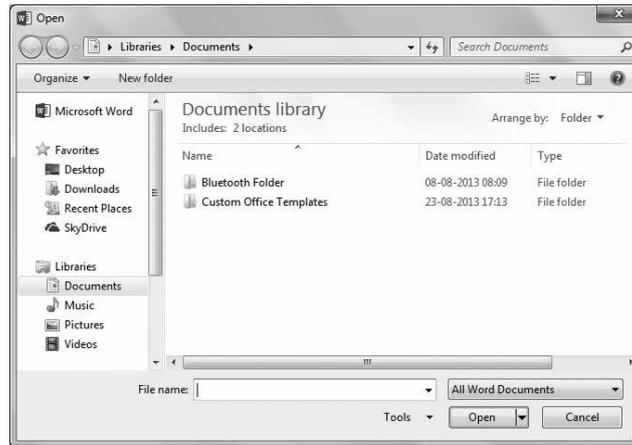
(c)

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

WORKSHEET ANSWERS

Chapter 1   A Smart Machine

1. a. Desktop   b. Icons   c. Start

2. a. Tablet   b. Start button   c.   Desktop computer with the CPU cabinet

3. a. Icons   b. Desktop   c. Laptop   d. Palmtop

D	E	S	K	T	O	P	T	A	P
C	H	T	E	J	o	C	Z	H	A
I	U	L	A	P	T	O	P	J	L
C	J	D	A	E	C	V	R	Y	M
O	U	A	M	H	T	O	P	R	T
N	O	J	O	S	H	L	U	G	O
S	R	U	D	U	T	R	H	N	P

Chapter 2   Parts of a Computer

1. a. Floppy   b. Speaker   c. Device

2. a. USB   b. Microphone   c. UPS

3. a. Hard Disk   b.   Mouse   c. CPU Box   d. Printer

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

Chapter 3   Keyboard

1. a. Cursor   b. Backspace   c. Delete

2. Colour the given keys in the required colours.

3. a. Arrow keys   b. CAPS Lock   c. Delete   d. TAB

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

Chapter 4   Uses of Computers

1. a. Record   b. Animation   c. Bank

2. a. Computer used in teaching   b. Computer used in booking tickets

   c. Computer used in making films   d. Computer used in launching rockets

3. a. Designing   b. Library   c. Hospital

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

Chapter 5   Let's Paint!

1. a. Ribbon   b. Pencil Tool   c. Paint   d. Home

2. a. Pencil Tool   b. Save option

3. a. Line tool   b. Colour box   c. Brushes tool   d. Ribbon

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

Chapter 6   Drawing in Paint

1. a. Eraser tool   b. Polygon tool   c. Magnify

2. a. Fill with Color Tool   b. Text Tool   c. Color Picker Tool   d. Select Tool

3. a. Polygon Tool   b. Curve Tool   c. Shapes

C	U	R	V	E	T	O	O	L	H	I
L	I	T	E	R	A	T	U	R	E	S
H	E	L	L	O	W	O	R	L	D	T
P	O	L	Y	G	O	N	T	O	O	L
T	H	I	N	K	I	N	G	Y	M	O
D	I	S	H	A	P	E	S	A	T	R

Chapter 7   Let's Start Word 2013

1. a. Status Bar   b. FILE Tab   c. Help

2. a. Ribbon   b. Vertical Ruler   c. Dialog Box Launcher

   d. Horizontal Scroll bar

3. a. Quick Access Toolbar   b. Font group   c. Open Dialog box

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

TEST PAPERS

- Test papers have been provided for all the chapters of the course book.
- Each test paper is of **10 marks**.
- The test papers may be used for pen and paper assessment or the questions in them could be used to create your own assessment papers.
- They are also available as printable documents in **digital resources.**

Test Paper 1   Chapters 1 and 2

1. **Fill in the blanks with the correct words:**   **3 marks**

    a.   …………………………is a computer that is smaller than a laptop, but larger than a palmtop.

    b.   Microphone & speakers are part of the ………………………..devices of a computer.

    c.   A file that is saved on the computer is stored in the……………………

2. **Write T for the true statement and F for the false one:**   **3 marks**

    a.   A USB is also called a flash drive.

    b.   Icons are the first screen that appears on the computer monitor.

    c.   Turning off the computer safely is known as switching down.

3. **Identify the machines given below:**   **4 marks**

(a)   (b)   (c)   (d)

1. Fill in the blanks with the correct words: **3 marks**

a. The .... key is used to close a menu or a dialog box.

b. .... is a machine that we use to deposit or withdraw money.

c. The .... key is used to type numbers using the numeric keypad on the right side.

2. Write T for the true statement and F for the false one: **3 marks**

a. The SHIFT key is always used along with other keys.

b. In space research, computers are used for controlling the blood pressure.

c. Computers are used to print newspapers, magazines, etc.

3. a. Explain the use of computer in the following picture: **4 marks**

b. Count and write the number of keys in the picture of the keyboard given below:
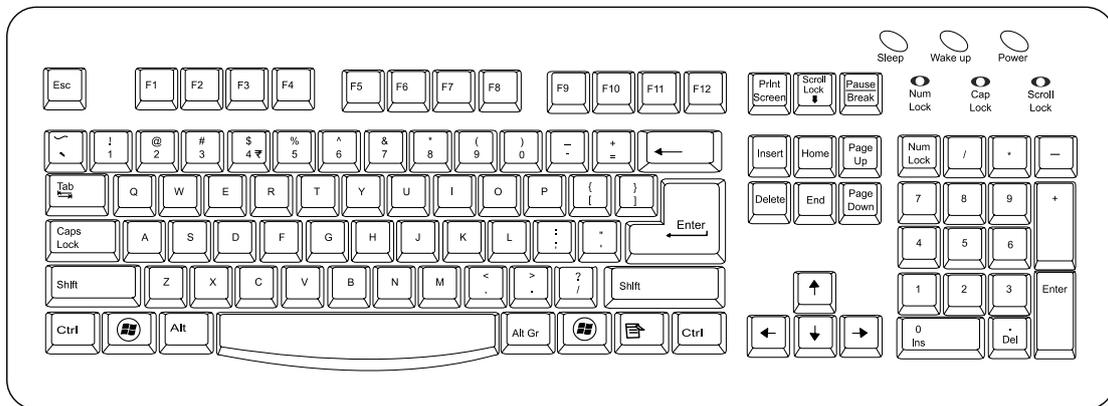
Test Paper 3   Chapters 5 and 6

1. **Fill in the blanks with the correct words:**   **3 marks**

    a. .... is a bent line or surface.

    b. .... is a part of the Paint window that contains the tools used to draw.

    c. .... tool is used to see a part of the drawing more closely.

2. **Write T for the true statement and F for the false one:**   **3 marks**

    a. A triangle can be drawn using the SHAPES group feature of the Paint window.

    b. To start a new drawing, click the PAINT button and then click the NEW option.

   c. To select any irregularly-shaped part of the drawing, click the Rectangular selection.

3. **Waqas has drawn a scenery for a competition using PAINT. Name the tools he has used to draw the scenery. Save the picture by the name 'scenery'.**   **4 marks**
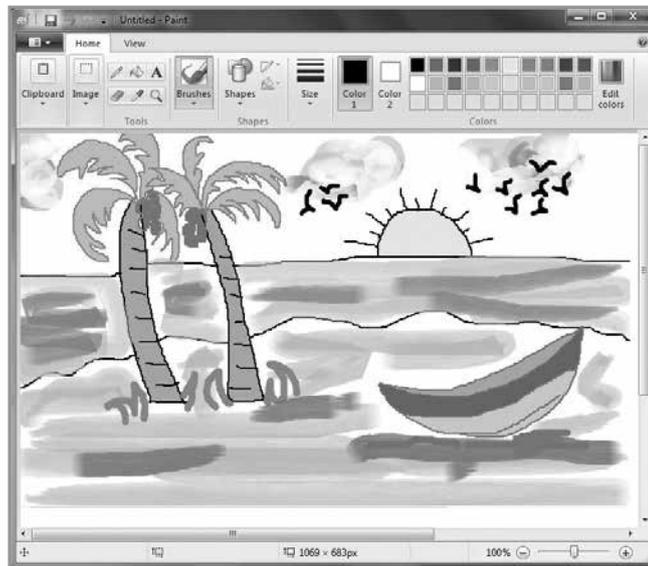
Test Paper 4   Chapter 7

1. **Fill in the blanks with the correct words:**   **3 marks**

    a. The .... box is a window where you select options as per your choice.

    b. The .... button is located at the top right end of the title bar.

    c. The .... scroll bar is used to move the text left or right.

2. **Write T for the true statement and F for the false one:**   **3 marks**

    a. We cannot check spellings and grammatical errors in the text typed in Word 2013.

    b. The status bar is displayed at the top of the Word 2013.

    c. The keyboard shortcut to save a document is CTRL + S.

3. **Label the numbered components of the Word 2013 window given below:**   **4 marks**

d. ....

b. ....

c. ....

a. ....
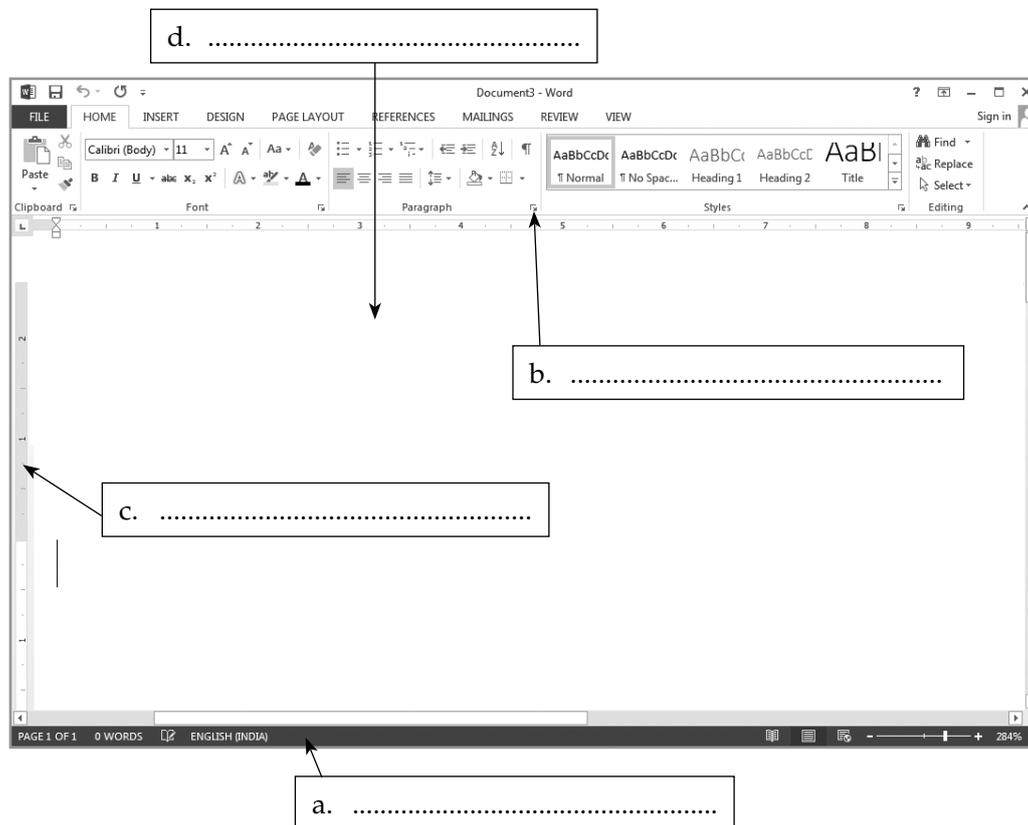
Test Paper Answers

Test Paper 1

1. a. Tablet   b. Multimedia   c. Hard disk
2. a. T   b. F   c. F
3. a. Hard disk   b. Palmtop
   c. Desktop with the CPU cabinet   d. Microphone

Test Paper 2

1. a. ESC   b. ATM   c. NUM LOCK
2. a. T   b. F   c. T
3. a. Providing information about flight timings
   b. One Hundred and Three

Test Paper 3

1. a. Curve   b. Ribbon   c. Magnifier
2. a. T   b. T   c. F
3. The tools Waqas has used are: the **Pencil** tool, the **Brushes** tool, and the **Fill with color** tool. To save the image:
   a. Click the **PAINT** button, then click the **SAVE** option.
   b. In the **SAVE AS** dialog box type 'scenery' in the **File name** box and then click the **Save** button

Test Paper 4

1. a. Dialog   b. Close   c. Horizontal
2. a. F   b. F   c. T
3.

d. Document Window

b. Dialog Box Launcher

c. Vertical Ruler

a. Status Bar