CENTRAL BOARD OF SECONDARY EDUCATION

(An autonomous Organisation under the Union Ministry of Human Resource Development, Govt. Of India).

'Shiksha Sadan', 17, Institutional Area, Rouse Avenue, New Delhi -110002

CBSE/ Directot (Acad) / CIRCULAR/ 2010 **05.04.2010**

All Head of Institutions **Circular No. 15**
Affiliated to the Board

Subject : Standard Operating Procedure (SOP) for dealing with any terrorist attack on schools – reg.

Dear Principal,

The Ministry of Home Affairs, Govt. of India has advised that experience gained in handling terrorism in recent years has shown that spectacular terrorist actions may be undertaken with a view to gain widespread media and public attention. Places with large number of footfalls such as malls, multiplexes, hostels and schools are soft and most vulnerable targets for terrorist attacks. This necessitates having a standard operating procedure (SOP), defining the role of the officials of the concerned agencies involved in counter measures.

An SOP for preventing/ dealing with any terrorist attacks on schools has been prepared by the Ministry of Home Affairs, Govt. of India and the same is attached for the information of all the CBSE schools. The Principals are requested to:

a. read the SOP carefully and bring it to the notice of all the staff and the teachers of the schools.

b. develop a comprehensive action plan to implement the guidelines.

c. allocate specific roles to different personnel and teachers as per the SOP.

d. brief the staff about the action to be taken by them in any exigency.

e. take preventive measures as given in the guidelines in consultation with the local police.

f. keep the security personnel of the school on the alert

g. communicate clear guidelines to parents about what they should and should not do in case of any news of such incidents.

h. conduct advance reconnaissance of the school with the help of the local police.

i. hold mock drills for students, teachers and staff.

The objective of this circular is purely educative in nature so as to alert the school administration and prepare it for any eventuality. Hence Principals are requested to ensure that this information is disseminated discreetly, without creating any sense of panic.

These guidelines are being circulated to all major schools to equip them in preventing and dealing with such exigencies and they should not be deemed as intimation of any prior information or any specific threat to any particular institution.

I request you to kindly implement these guidelines and intimate the Board.

Yours faithfully

(C. GURUMURTHY)
DIRECTOR (Academic)

Encl: SOP Guidelines for dealing with any terrorist attack on schools.

Copy with a request to respective Heads of Directorates/ KVS/ NVS/ CTSA as indicated below to also disseminate the information to all concerned schools under their jurisdiction:

1. The Commissioner, Kendriya Vidyalaya Sangathan, 18-Institutional Area, Shaheed Jeet Singh Marg, New Delhi- 110016.
2. The Commissioner, Navodaya Vidayalaya Samiti, A-28, Kailash Colony, New Delhi.
3. The Director of Education, Directorate of Education, Govt. of NCT of Delhi, Old Secretariat, Delhi-110054.
4. The Director of Public Instrucions (Schools), Union Territory Secretariat, Sector-9, Chandigarh-160017.
5. The Director of Education, Govt. of Sikkim, Gangtok, Sikkim- 737101.
6. The Director of School Education, Govt. of Arunachal Pradesh, Itanagar-791111
7. The Director of Education, Govt. of A&N Islands, Port Blair- 744101.
8. The Director of Education, S.I.E., CBSE Cell, VIP Road, Junglee Ghat, P.O. 744103, A&N Islands.
9. The Secretary, Central Tibetan School Administration, ESS ESS Plaza, Community Centre, Sector 3, Rohini, Delhi- 110085
10. All the Regional Officers of CBSE with the request to send this circular to all the Heads of the

affiliated schools of the Board in their respective regions.

11. The Education Officers/ AEOs of the Academic Branch, CBSE.
12. The Joint Secretary (IT) with the request to put this circular on the CBSE website.
13. The Library and Information Officer, CBSE.
14. E.O. to Chairman, CBSE
15. DO/ PA to Secretary, CBSE
16. PA to CE, CBSE
17. PA to Director (Acad.)
18. PA to HOD (AIEEE)
19. PA to HOD (Edusat)
20. PRO, CBSE

STANDARD OPERATING PROCEDURE FOR DEALING WITH ANY TERRORIST ATTACK ON SCHOOLS.

1. Background:

Experience gained in handing terrorism in recent years has shown that with a view to gain widespread media and public attention, bold terrorist attacks are undertaken. Places of large number of footfalls, malls, multi-plexes, hotels and schools, are most vulnerable for terrorist attacks. This necessitates to have in place a Standard Operating Procedure defining the role of officials of the concerned agencies participant to counter such attack in schools.

2. Aim of SOP:

The aim of this SOP is to lay down guidelines and procedure for preventing and dealing with extremist attack on schools. However, these are general guidelines. Every terrorist related incident is different and the action should be taken by all concerned keeping in mind the specifics of each situation, keeping in mind these general guidelines.

3. Identification of Schools:

The local police should identify or make a list of prominent/ high profile schools in their jurisdiction for the purpose of SOP.

4. Preventive Measures:

4.1 Each school should have concrete boundary wall, with 3 to 4 gates and each gate should be manned by at least 3 guards, on a 24- hours basis.

4.2 Details of telephone number of the Police Control Room and local police station should be maintained and updated regularly by the school authorities. These details should be displayed at prominent places so that in case of crisis, the Principal, teachers, students, staff or security guards or any one from the school may contact the Police. A nodal officer may be nominated to look after security arrangement in the school.

4.3 A telephone connection should be provided at the main gate of the School so that the guards can inform the Police in case of any emergency without waiting for informing the nodal officer or the Principal.

4.4 There should be proper illumination along the perimeter so that nobody can jump over the wall into the school in the night for any nefarious activity.

4.5 Concertina wire may be fixed on the iron grills above the boundary wall to deter any one from jumping over the wall.

4.6 Installation of CCTV systems all along the boundary as well as some additional locations inside the premises, to monitor the movement of any suspicious person, with recording facilities for the last three days, at least. The system should also have requisite video analytics to detect any intrusion and raise an audio as well as visual alarm. CCTV system alarm may also be connected to the identified gates to close them automatically.

4.7 Walkie Talkie sets for communication between security guards and nodal security officer be arranged, intercom between main gate/ other perimeter gates to the nodal security officer and the Principal of the School may be provided for efficient communication.

4.8 There should be centralized Public Announcement System between Nodal Officer and all classes/ library etc. by which instructions can be given to the students/ staff in each room, collectively or individually or in selected combination, may be installed.

4.9 A visual anti-sabotage check of the entire school should be carried out by the security staff of the school before the children start arriving in the morning. They should also check the footpath in front of the school, all along the boundary wall including the parking area to detect any suspicious objects lying unattended there.

4.10 Alarm System: In order to alert the entire security staff, Principal. Teachers and the students in case of any contingency, a suitable electric bell needs to be installed connecting all the gates to a nodal point in the school. The alarm system should also have a display panel to indicate the location from which the alarm has been raised. The alarm can be manually pressed by the guards or get activated automatically if any vehicle crashes into the gate. The nodal officer should immediately verify the reason for raising the alarm, inform the Principal, take action to initiate the contingency drill in the school and inform the police.

5. Action/ Active stage:

5.1 Response of the School Authorities in case of any Contingency: The drill for the School authorities may be divided into two parts namely contingency at the time of arrival/ departure of the children and

secondary while the school is already functional.

Drill at the time of arrival/ departure of the children:

i. Kidnapping of children at the time of their arrival/ departure.

a. The guard on duty at main gate or nodal officer should immediately inform the Police about the incident. Guards should give proper description of the vehicle, colors etc, so that police can impose Red Alert and search the suspected vehicle.

b. The guards posted at main gate should immediately rush the children already on the road or footpath inside the school and close the school gates.

c. Those who are still in the cars and buses and have not alighted should be told to move forward and leave the area.

d. The guards at the main gate should immediately press the alarm bell to close the intermediate gates to segregate and secure the children inside the school blocks. He should also inform the nodal security officer/ Principal of the school.

ii. Random Firing on the road near the School

a. There should be two guards at the main gate at the time of arrival/ departure of children. Guard at the main gate should quickly take in all the children and close the gate.

b. Another guard should direct the buses and vehicles from which the children have not yet alighted to move on quickly and get out of the area.

c. Guards at main gate to inform the police and also the nodal security officer of the school.

d. Alarm bells should be rung and intermediate gates be closed to prevent any children from coming outside.

e. Rush the injured children/ other victims to the hospital.

iii. Armed Intrusion into the school with Hostage taking:

In case armed terrorists manage to enter the school and hold up teachers/ students/ others as hostages, the following action should be taken by the school authorities, besides the quick reaction team engaging the terrorists:

a. Inform the Police

b. Initially all the children and teachers should stay back in their respective rooms and those in veranda etc. rush into the nearest room, and not to indulge into any any rash act in panic like running out towards door to escape etc. They should close the doors from inside and lie low in the classroom to escape random firing.

c. The security guards should be identified gate-wise. They should rush out from their positions with the keys of the concerned gates to open them for safely sending the children out as and when possible. They shall check that the area outside is clear of miscreants and a passage is available,

and open the gates when told to do so by teachers/ nodal security officer.

d. If the location of the terrorists is known and there is safe passage available from the other classrooms to any of the gates, the children under the leadership of the respective teachers in a single file without making any noise should be taken out.

e. Children may not be asked to collect/ gather in any open ground as they can become easy targets.

f. In case of any doubt, there should be no movement and teacher/ school authority should wait for the police to arrive, contain the situation, surround the terrorist and provide a secured passage for the children to move out from their respective places to outside the school.

g. One of guards available should rush to the main gate and direct the cars/ buses arriving subsequently to go back to their homes.

iv. Suspected explosive object found in the vicinity of school or inside the premises:

a. School staff, teacher and students should be regularly briefed not to touch any unattended object lying anywhere inside/ outside the school. In case any such object is found, the person who finds it should immediately bring it to the notice of the nodal security officer of the school. In case it is seen by a student, he should immediately bring it to the notice of his first available teacher, who in turn will inform the nodal security officer/ principal of the school. All should also be briefed to keep away from such an object.

b. If there is a bomb scare, then children should not be collected in one place without first checking that area. Some place can be designated like auditorium/ field and there should be team of 8-10 people from the school who will quickly spread out and carry out a check of that area before collecting the children there.

c. In case the bomb has already exploded, then cars and buses coming to the school with children should be told to go back home.

d. The injured/ casualties be rushed to the hospitals.

e. The nodal officer or the Principal or even the security guards available in the school should inform the Police at the earliest opportunity. The call will activate the police drill and they will respond accordingly.

Drill when the school is already functional:

a. All the gates on the perimeter wall should be closed and locked after the arrival of children. The guard should open the door only for bonafide reasons. Once the gates are locked, the probability of forcible intrusion considerably reduces, as even the intruder understands that in case he tries to enter forcibly, the school authorities can call the police and they may be intercepted even before they can achieve their objectives. However, in case somebody tries to forcibly enter the school premises by forcing open the gate under threat of life to the guard or crash open the gate by driving the vehicle into the gate or jump over the wall, the following action should be taken:

b. Guard at the main gate should inform police and the nodal security officer immediately.

c. In case the guards on other gates notice the intrusion or any being threatened by intruders to open the gate, they should also immediately press the alarm bell. A code can be defined for ringing the bell in such a situation to convey the type of threat.

d. The Nodal Security Officer should immediately raise general alert in the school and through centralized PA system inform the concerned to follow the security drill i.e. all children/ staff to go inside the rooms and to close them from inside.

e. Nodal Security Officer to inform the Principal of the school.

f. However, if the criminals/ terrorists still manage to enter the school and indulge in any criminal act, then the following drill should be followed for various acts:

(i) Kidnapping of children / Random firing with intention of mass killing of children inside the school:

It is presumed that the terrorists/ criminals having done their act have managed to escape. In such a case

- Inform the police again giving description of criminals/ terrorists, their number, along with details of escape vehicle, if noted.
- Nodal Security Officer to announce on PA system for teachers/ students and staff to stay inside their rooms.
- Injured/casualties, if any, be rushed to the hospitals.
- Those who have seen the kidnappers and noted their description be identified and requested to collect at one place to assist the police in investigation.
- Drill be activated to inform the parents and return of children.

(ii) For other situations the drill will be same as mentioned in para.

4.1 (A)

6. Communication with the Parents:

It is very likely that the news of such an incident will breakout very fast and parents in panic would rush to the school. In order to ensure that parents do not rush to school and create obstructions in the subsequent operations by the police forces, they need to be informed to come to a pre-identified central place as close to the school as possible for the briefing as well as for handing over of rescued children. This can be achieved if the school can have a system of having the mobile nos. of all the parents of the children in a centralized database. A SMS can be drafted explaining the situation giving the necessary facts, place of their assembly for briefing etc. and the message sent to all. For this purpose, the local police should identify the place of assembly, in advance and provide a list, locality wise to all schools and also to the District Hqrs. And State Hqrs.

7. General Suggestions:

1) School gates be kept closed immediately after the arrival of children till the dispersal of children begins, to prevent any easy intrusion.

2) The telephone numbers of nearest hospital(s), police stations and assistance desks should be displayed prominently in the school.

3) Guards should be identified for each gate and there should be a list put up to specify who has keys to which gate. All gates should be covered by guards.

4) A centralized alarm system and also a PA system, through which classes can be addressed collectively as well as individually and selected combination should be installed.

5) All teachers/ staff should be briefed properly and apprised of any possible threats.

6) There should be a list with duties specified by names like which teacher/ staff would be responsible for controlling children, which one would inform police/ hospital authorities, which one would be responsible for informing the parents and so on.

7) All the bus drivers to be briefed to respond quickly and drive away their buses with children if they see any commotion/ attack at the gate and directed by security guards to do so.

8) The guard at the gate should be alert to notice any suspicious person moving around or standing near the school.

9) A security check can be carried out in school by the staff to check if any object is lying unclaimed at various points such as in the classroom, at any gate, in the field and so on.

10) The antecedents of all the new staff members being employed in the school should be verified properly.

11) All labourers working in the school should be issued a temporary photo I- Card and they can be generally checked by security guards to prevent anyone of them from bringing anything (like bomb/ IED) to be implanted in the school.

12) School authorities should provide a copy of lay out plan of the school to the local police station in advance.

8. Advance Recee:

Local police along with the school may carry out an advance reconnaissance of the schools to prepare the operation to deal with any such contingency in future.

9. Mock Drill:

School authorities may conduct the briefing of the teachers/ students/ staff as well as the drill as per this SOP to ensure that everybody knows his/ her role in such an eventuality. They can also include local Police in their Mock Drill.

MOST URGENT

CENTRAL BOARD OF SECONDARY EDUCATION
'SHIKSHA SADAN' 17, ROUSE AVENUE, NEW DELHI-110002

AEO(DR)/ACAD./2010

Dated : 07.04.2010
Circular No.16

TO

All the Heads of all CBSE affiliated schools.

Sub.: Updated syllabus in Additional Languages and Subjects for the academic year 2010-11 for classes IX & X – reg.

Dear Principal,

Updated Syllabus along with suggested guidelines/activities for conducting Formative Assessment for classes IX & X for the academic year 2010-11 is made available on the CBSE website in CCE format term wise, language wise, subject wise etc. in the following languages and subjects:-

S.No.	Language/Subject (class IX & X)	S.No.	Language/Subject (class IX & X)
	Languages		
1.	Bengali	19.	Nepali
2.	Marathi	20.	Tibetan
3.	Malayalam	21.	Mizo
4.	Tamil	22.	Limboo
5.	Telugu	23.	Lepcha
6.	Arabic	24.	Bhutia
7.	French	25.	Tangkhul
8.	Gujarati	26.	Bodo
9.	Sindhi		**Subjects**
10.	Russian	27.	Painting
11.	Spanish	28.	Hindustani Music Vocal
12.	Persian		Hindustani Music Melodic Instruments
13.	Portuguese	29.	Hindustani Music Percussion Instruments
14.	Kannada	30.	Carnati Music Vocal
15.	Oriya	31.	Carnatic Music-melodic Instruments
16.	Kashmiri	32.	Carnatic Music-Percussion Instruments
17.	Assamese		
18.	Manipuri		

The syllabus in the above mentioned languages and subjects for classes IX & X in the CCE format for the academic year 2010-11 also made available in the printed form of CBSE document Sec. School Curriculum Vol. II 2012. It is a priced publication and will be available in CBSE stores at H.Q. as well as all Regional Offices.

Kindly disseminate the above information to all the teachers and students concerned immediately.

Yours faithfully,

(C. GURUMURTHY)
Director (Academic)

Copy to the following Heads of Departments with a request to disseminate among the schools under their jurisdiction:

1. The Commissioner, Kendriya Vidyalaya Sangathan, 18, Institutional Area, Shaheed Jeet Singh Marg, New Delhi 110 016
2. The Director, Navodaya Vidyalaya Samiti, A-28, Kailash Colony, New Delhi 110048.
3. The Director of Education, Directorate of Education , Govt. of NCT of Delhi, Old Secretariat, Delhi 110 054.
4. The Director of Education, Govt. of Andaman and Nicobar Islands, Port Blair-744101.
5. The Director of Public Instruction (Schools),Union Territory Secretariat, Sector-9 Chandigarh-160017.
6. Director of School Education, Govt. of Arunacahal Pradesh, Itanagar-791111
7. Director of Education,Govt of Sikkim, Gangtok, Sikkim -737101
8. Controller of Examination, CBSE
9. All the Regional Officers with the request to send it immediately to all the Heads of the Schools which falls under your jurisdiction for the action and compliance.
10. All Education /Asstt. Education Officers.
11. EO to Chairman, CBSE for kind information.
12. PA to Secretary, CBSE for kind information.
13. PA to Controller of Examination, CBSE for kind information.
14. PA to HOD (AIEEE) for kind information.
15. PA to HOD(Edusat) for kind information.
16. The Secretary, Central Tibetan School Administration, EFF, ESS Plaza, Sector 3, Rohini, Delhi 85.
17. The Additional Director General, Director General of Army Education, A Wing Sena Bhawan,

DHQ-PO, New Delhi.

18. The Deputy Director of Education, Border Security Force, Block 10, CGO Complex, Lodhi Road, New Delhi 110003.

19. Joint Secretary (IT), CBSE with a request to upload the circular on the Website.

20. The Secretary, AWES, Army Headquarters, Adjutant General Branch CW-4, Army Welfare Education Society, West Block -3, R.K.Puram, New Delhi 110022.

21. PRO, CBSE, Delhi.

Director (Academic)

CENTRAL BOARD OF SECONDARY EDUCATION
"SHIKSHA SADAN", 17, ROUSE AVENUE, INSTITUTIONAL AREA, NEW DELHI – 110 002

CBSE/EO (Com)/A/HIQ/2010 **April 15, 2010**

Circular No.17

All the Heads of the
CBSE affiliated schools

Subject: Heritage India Quiz – 2010-11

Dear Principal,

The CBSE Heritage India Quiz is one of the enrichment activities initiated by the Board with the objective of inculcating among the students interest and appreciation for the rich heritage and diversity of our country. Started in the year 2001, it has been generating tremendous enthusiasm among the student community. It is needless to say that it has been the unstinted support and cooperation from schools that had enabled this success. The trend needs to be continued and the schools are expected to participate with greater vigour in the Heritage India Quiz to be conducted in the ensuing academic session 2010-11.

As in the previous years, the first edition of the CBSE Heritage India Quiz will start from August 2010. Teams will be identified on the basis of their performance in the first round of written preliminary quiz to be conducted in August, 2010. Each school will be represented by three students forming a team who may be selected from classes IX to XII.

The written preliminary round will consist of multiple choice type questions in which the correct answer has to be marked on the OMR answer sheet .The total of the scores obtained by the three participants will be the marks scored by the team. The meritorious teams will participate in the Zonal Rounds which are proposed to be conducted in September 2010. This will be followed by the National Rounds featuring the Pre Finals amongst the teams qualifying in the Zonal Rounds and the National Finals for the best teams emerging out of the Pre Finals. There are attractive prizes and trophies besides certificates instituted for the winners.

The registration of your school for the competition should be completed by 25th May 2010. You may fill up the enclosed proforma for the same and forward to (Ms.) Sugandh Sharma, Education Officer, Central Board of Secondary Education, "Shiksha Sadan", 17, Rouse Avenue, Institutional Area, New Delhi – 110 002 along with the registration fee of Rs. 600/- through a DD in favour of Secretary, CBSE, Delhi. Second class rail fare including reservation charges for three students and one school escort will be reimbursed to those who will be participating in the National Round.

This information may be given wide publicity and disseminated to all the students.

Best Wishes,

Yours sincerely,

(C. GURUMURTHY)
DIRECTOR (ACADEMIC)

Copy with a request to respective Heads of Directorates/KVS/NVS/CTSA as indicated below to also disseminate the information to all concerned schools under their jurisdiction:

01. The Commissioner, Kendriya Vidyalaya Sangathan, 18, Institutional Area, Shaheed Jeet Singh Marg, New Delhi-110 016.
02 The Commissioner, Navodya Vidyalaya Samiti, A-28, Kailash Colony, New Delhi.
03 The Director of Education, Directorate of Education, Govt. of NCT of Delhi, Old Secretariat, Delhi-110 054.
04 The Director, NCERT, Sri Aurobindo Marg, New Delhi – 110 016.
05 The Director of Public Instructions (Schools), Union Territory Secretariat, Sector-9, Chandigarh-160 017.
06 The Director of Education, Govt. of Sikkim, Gangtok, Sikkim-737 101
07 The Director of School Education, Govt of Arunachal Pradesh, Itanagar-791 111.
08 The Director of Education, Govt. of Andaman and Nicobar Islands, Port Blair-744 101.
09. The Secretary, Central Tibetan School Administration, ESSESS Plaza, Community Centre, Sector 3, Rohini, Delhi-110 085.
10 All Regional Officers of CBSE with the request to send this circular to all the Heads of the affiliated schools of the Board in their respective regions.
11. All Education Officers of the Academic Branch, CBSE
12. All Asstt. Education Officers, CBSE
13. The Library and Information Officer, CBSE
14. E.O. to Chairman CBSE
15. P.A. to C.E., CBSE
16. P.A. to Secretary, CBSE
17. P.A. to HOD (EDUSAT), CBSE
18. P.A. to HOD (AIEEE), CBSE
19. PRO, CBSE

DIRECTOR (ACADEMIC)

CBSE- HERITAGE INDIA QUIZ 2010-11

Registration Form

We wish to register our School team for the CBSE-Heritage India Quiz 2010-11. Particulars are given below. (Please type or write in bold)

CBSE Regional Office:_____

1.	Name of the School	
2.	CBSE Affiliation No.	
3.	Complete Postal address of school (with pin code)	
4.	School Phone No. with STD/ISD Code)	
5.	Name of Principal	
6.	Principal's Residential Address (with pin code)	
7.	Principal's Contact No. Residential (With STD Code No) Mobile No.	
8.	School E-mail address:	
9.	School Fax No. (With STD Code No.)	
10.*	*Bank Draft Details (to be drawn in favour of Secretary, CBSE, DELHI) Registration Fee of Rs. 600/-, Payable at Delhi	Bank Name: Date: Draft No. _____
11.	Signature of Principal (with school seal and date)	

The school will abide by the rules of CBSE Heritage India Quiz as framed by the CBSE.

Mail to:
(Ms.) Sugandh Sharma
Education Officer
Central Board of Secondary Education, "Shiksha Sadan, 17, Rouse Avenue, Institutional Area, New Delhi – 110 002. Phone: 011-23220155

To reach by 25th May, 2010, please send by Speed Post to ensure timely and safe delivery.

IMPORTANT

The last date for registration of teams for CBSE Heritage India Quiz is 25th May, 2010.

MOST URGENT

CENTRAL BOARD OF SECONDARY EDUCATION
'SHIKSHA SADAN' 17, ROUSE AVENUE, NEW DELHI-110002

AEO(DR)/ACAD./Music & Dance./2010 Dated : 26.02.2010

Circular No. 18

To

All the Heads of all CBSE affiliated schools.

Sub.: Introducing new Senior Secondary School Curriculum Vol. III - 2012 for Music & Dance

Dear Principal,

The Curriculum documents published by CBSE every year in two volumes do not cater to certain subjects like Music and Dance etc. and the syllabi for these subjects are being provided only on specific requests from schools/individual. However there has been a persistent demand from the stake holders for incorporating syllabi of these subjects as well in the regular curriculum documents.

Hence the Board has decided to introduce its new Curriculum Vol-III for the Board Exams 2012 at senior secondary level in the following subjects that would contain Syllabus for the class XI during the academic year 2010-11 and for the class XII in the academic year 2011-12.

1. Music Hindustani (all) for classes XI & XII .
2. Music Carnatic(all) for classes XI & XII.
3. Dance(all) for classes XI & XII.

The above mentioned Curriculum is available in CBSE stores at H.Q. as well as its all Regional Offices. Also the syllabi for 2011 Board Exam. for classes IX & X is being made available in our Website.

Kindly disseminate the above information to all the teachers and students concerned immediately.

Yours faithfully,

(C. GURUMURTHY)
Director (Academic)

Copy to the following Heads of Departments with a request to disseminate among the schools under

their jurisdiction:

1. The Commissioner, Kendriya Vidyalaya Sangathan, 18, Institutional Area, Shaheed Jeet Singh Marg, New Delhi 110 016
2. The Director, Navodaya Vidyalaya Samiti, A-28, Kailash Colony, New Delhi 110048.
3. The Director of Education, Directorate of Education , Govt. of NCT of Delhi, Old Secretariat, Delhi 110 054.
4. The Director of Education, Govt. of Andaman and Nicobar Islands, Port Blair-744101.
5. The Director of Public Instruction (Schools),Union Territory Secretariat, Sector-9 Chandigarh-160017.
6. Director of School Education, Govt. of Arunacahal Pradesh, Itanagar-791111
7. Director of Education,Govt of Sikkim, Gangtok, Sikkim -737101
8. Controller of Examination, CBSE
9. All the Regional Officers with the request to send it immediately to all the Heads of the Schools which falls under your jurisdiction for the action and compliance.
10. All Education /Asstt. Education Officers.
11. EO to Chairman, CBSE for kind information.
12. PA to Secretary, CBSE for kind information.
13. PA to Controller of Examination, CBSE for kind information.
14. PA to HOD (AIEEE) for kind information.
15. PA to HOD(Edusat) for kind information.
16. The Secretary, Central Tibetan School Administration, EFF, ESS Plaza, Sector 3, Rohini, Delhi 85.
17. The Additional Director General, Director General of Army Education, A Wing Sena Bhawan, DHQ-PO, New Delhi.
18. The Deputy Director of Education, Border Security Force, Block 10, CGO Complex, Lodhi Road, New Delhi 110003.
19. Joint Secretary (IT), CBSE with a request to upload the circular on the Website.
20. The Secretary, AWES, Army Headquarters, Adjutant General Branch CW-4, Army Welfare Education Society, West Block -3, R.K.Puram, New Delhi 110022.
21. PRO, CBSE, Delhi.

Director (Academic)

CENTRAL BOARD OF SECONDARY EDUCATION

SHIKSHA SADAN, 17-ROUSE AVENUE, INSTITUTIONAL AREA, NEW DELHI-110002

CBSE/Sc.Exh./Cons./2010 **Dated: 21.04.2010**

Circular No. 19

All Heads of Institutions
Affiliated to the Board

Subject: Organisation of CBSE Science Exhibition 2010

Dear Principal

Besides creating scientific literacy, key expectations from teaching-learning of science at school stage include developing questioning and enquiring skills, acquiring process skills, developing problem-solving and decision-making skills and promoting scientific temper in the learners and helping them to understand and appreciate close inter-relationship between Science, Technology and society. This demands interactive, participatory, hands-on, innovative and creative learning experiences to be provided to them.

The Board has initiated many steps in the recent past to provide such experiences. One such step refers to organisation of Science Exhibitions at Regional and National levels. The event is aimed at providing a common platform to schools, teachers and students to given shape to their creative and innovative ideas. Based on the past experience of enthusiastic response from schools, it has again been decided to organize the Science exhibitions for the year 2010-2011. These exhibitions are likely to be organized at Regional level in the month of July/August and at National level in the month of September/October,2010.

The main theme and sub-themes for this year's Science Exhibition are:

Main Theme: Science, Technology and Society

Sub-Themes:

- **Climate change-Causes and Consequences**
- **Green Energy**
- **Biology in Human welfare**
- **Information and Communication Technology**
- **Mathematics and Everyday life**
- **Science and Technology in Games and sports**

The following **key aspects** of the exhibition may be kept in mind for participation:

(i) Any participating school can prepare a maximum of **two** exhibits/projects/models.

(ii) The Participating school/team will have to **bear all expenses** related to participation in the exhibition.

(iii) The exhibit/model may be either

(i) a working model or

(ii) An investigation-based project

(iv) The school team may be represented by a maximum of **two students per exhibit** and **one escort Science Teacher**.

(v) The exhibit/project may include

- A working model to explain a concept, principle or a process
- An indigenous design of a machine/device
- An innovative/inexpensive design or technique.
- Application of basic principles of Science/technology
- Scheme/design of a device or machine to reduce the production cost
- Investigation-based study

(vi) The request for participation alongwith the enclosed registration form and fee is to be sent directly to the **respective regional officer**.

(vii) The schools in Delhi region may send it to **Regional Officer, Central Board of Secondary Education, PS 1-2, Institutional Area, I.P. Extension, Patparganj, Delhi-110 092.**

(viii) Irrespective of the number of exhibits, every participating school will pay a participation fee of **Rs.400/-**. This payment should be made in the form of a demand draft in favour of **Regional Officer, CBSE** payable at respective regional office city.

(ix) The last date for registration for participation in the event is **June 15, 2010**.

(x) The first stage of exhibition will be held at two different venues in every region. However, if the number of participating schools from a particular region is very large, the number of venues may be increased to three.

(xi) The selected **best fifteen** exhibits/ schools at every regional level venue will be eligible to participate in the National level exhibition.

(xii) The exhibits/projects will be **evaluated** by the experts as per the following **criteria**:

- Creativity and imagination 20%
- Originality and innovativeness 15%
- Scientific thought/principle/approach 15%

- Technical skill/workmanship 15%
- Utility/educational value 15%
- Economic aspect, portability, durability 10%
- Presentation-Explanation and demonstration 10%

(xiii) The actual dates for the regional level exhibition will be communicated to every school **individually** as well as through CBSE website **www.cbse.nic.in** by **July 10, 2010.**

(xiv) A brief **write-up** about the main theme and sub-theme is enclosed for reference. The participating schools may prepare the exhibits/projects on any one of the sub-themes satisfying one or more of the stated parameters.

(xv) Greater emphasis may be given to **investigation based innovative projects** to kindle curiosity, originality and creativity in the students.

(xvi) Attractive awards/cash prizes are given to exhibits/students who are among the best twenty models at the national level.

The above information may be brought to the notice of all concerned, particularly the science faculty in the school and the students. The **request for participation** alongwith enclosed registration form, registration fee and other details may be sent to **respective Regional Officers** before due date. For any other information in this regard, you may contact at **science.cbse@gmail.com** or **eoscience@live.com**.

You may also send any specific suggestions or observations in this regard to the undersigned at the above e-mail address.

Thanking you,

Yours faithfully,

(R.P. Sharma)
Consultant, CBSE

Copy with a request to respective Heads of Directorates/KVS/NVS/CTSA as indicated below to also disseminate the information to all concerned schools under their jurisdiction:

1. The Commissioner, Kendriya Vidyalaya Sangathan, 18-Institutional Area, Shaheed Jeet Singh Marg, New Delhi-110 016.
2. The Commissioner, Navodaya Vidyalaya Samiti, A-28, Kailash Colony, New Delhi.
3. The Director of Education, Directorate of Education, Govt. of NCT of Delhi, Old Secretariat, Delhi-110 054.
4. The Director of Public Instructions (Schools), Union Territory Secretariat, Sector 9,

Chandigarh-160 017.

5. The Director of Education, Govt. of Sikkim, Gangtok, Sikkim – 737 101.
6. The Director of School Education, Govt. of Arunachal Pradesh, Itanagar-791 111
7. The Director of Education, Govt. of A&N Islands, Port Blair-744 101.
8. The Secretary, Central Tibetan School Administration, ESS ESS Plaza, Community Centre, Sector 3, Rohini, Delhi-110 085.
9. All the Regional Officers of CBSE with the request to send this circular to all the Heads of the affiliated schools of the Board in their respective regions.
10. The Education Officers/AEOs of the Academic Branch, CBSE.
11. The Joint Secretary (IT) with the request to put this circular on the CBSE website.
12. The Library and Information Officer, CBSE
13. EO to Chairman, CBSE
14. PA to CE, CBSE
15. PA to Secretary, CBSE
16. PA to Director (Acad.)
17. PA to HOD (AIEEE)
18. PA to HOD (Edusat)
19. PRO, CBSE

(R.P. SHARMA)
Consultant, CBSE

CBSE SCIECNE EXHIBTION 2010

Guidelines for preparation of Exhibits and Models

The importance of every sub-theme in the context of main theme and a number of suggestions for designing the exhibits/projects are give below. However, these ideas are only suggestive. Participants are free to develop exhibits based on other related ideas of their choice.

Sub-Theme 1

Climate change-causes and consequences

Climate change is emerging as perhaps the greatest environmental challenge of the 21st century. Scientists are concerned that global warming caused by human activities has overtaken natural fluctuations in climate and that this is having serious consequences for people and the planet earth. It can upset the delicate ecological balance of the earth and its living organisms. Data of tree growth,

tropical air temperature and carbon dioxide emission collected over 16 years indicate that a warming climate may cause the tropical forests to give off more carbon dioxide than they take up.

The main objective of this sub-theme is to foster awareness about the causes and consequences of climate change and to help children become environmentally and socially responsible global citizens. The exhibits/models in this sub-theme may pertain to:

- studies of impact of climate change on agriculture
- energy foot-print and methods to reduce greenhouse gases.
- conditions of drought, flood, famine and effective measures required to combat them
- activities that add/reduce carbon dioxide in atmosphere/demonstrate balancing of carbon cycle.
- estimating one's carbon footprint on the globe
- measure to control air/water pollution/various methods of air/water purification/effect of pollution on living beings.
- designs and development of automatic weather-recording devices.
- use of eco-friendly and innovative devices that may help in combating climate change.

Sub-theme 2

Green Energy

The term 'green energy' is used for those energy sources which are considered to be environment friendly. The term is synonymous with widely accepted term 'renewable energy'. These energy sources are perceived to produce fewer pollutants and result in lower environmental pollution and carbon emission. Some of the renewable sources of energy in India are solar energy, wind energy hydroelectric energy, Biomass energy etc.

The main objective of this sub-theme is to make children feel the need to study and analyse various aspects of green energy-its generation, transmission, distribution and effective management. The exhibits/models in this sub-theme may pertain to

- green-roof technologies/roof mounted solar technologies such as solar water heater, solar lighting system, heating system of a building etc.
- green bricks using waste material/different innovative materials for furniture/construction/ road laying.
- innovative designs of solar cooker/solar distiller/solar dryer for food processing/ solar heated houses.
- solar thermal electricity/community solar project
- wind turbines for domestic use.

- various ways of harressing geothermal energy.
- use of tidal waves/ocean currents/salinity gradient for generating electricity
- production of electrical energy from mechanical energy/nuclear resources.
- energy from biomass
- improved designs of biogas/biomass plant
- designs/models of fuel efficient automobiles/machines
- innovations in mechanism of extraction storage and processing of fossil fuels.

Sub-theme 3

Biology in Human welfare

The understanding of biological phenomenon and principles have led to the innovations and development of a number of technologies for the benefit of mankind. The fields of agriculture, medical sciences, genetic manipulations, study of microorganisms, all have immensely benefited from these developments leading to the benefit of everyone.

The main objective of this sub-theme is to sensitive children about the overall implications and contributions of the biological phenomenon and living organisms for the benefit and welfare of mankind. The exhibits/models in this sub-theme may pertain to:

- ecological study of plants and animals.
- restoration of degraded areas and habitat of natural biodiversity.
- conventional biotechnological practices e.g. breeding techniques, tissue culture, applications of biotechnology, microbiology, genetic engineering and genomics to agriculture.
- organic farming/organic fertilizers.
- environment friendly measures of pest control.
- innovative/inexpensive/improved/indigenous/methods of irrigation/harvesting/ storage/ processing/preservation/conservation/transport of agricultural products..
- sustainable land use practices/ecologically sustainable farming methods.
- development of low cost technologies for producing potable water.

Sub-Theme 4

Information and Communication Technology

There has been a global expansion of electronic information in recent times. Computers are being increasingly connected through local areas as well as global networks. Information of every conceivable topic of human interest is being put up on the internet by individuals and institutions. Use of fax, mobile phone, email, have become a common day affair in all walks of life. To live and work in information

rich technological society, children should be exposed to experiences that encourage them to value the ever increasing capacity of information and communication technology and to appreciate its role in human affairs.

The main objective of this sub-theme is promoting innovations in knowledge networks involving information and communication technology in all segments of society, Children need to reason and communicate to solve problems and to understand effective use of information and communication technology for a variety of purposes. The exhibits/model in this sub-theme may pertain to:

- demonstrating how the information in any of the areas mentioned above can be accessed.
- demonstrating the principle and functioning of modern devices of communication, such as television and radio, mobile phone, fax, email, internet etc. and accessing and downloading information from them.
- efficient use of multimedia in making the teaching-learning process more interesting and effective/in enhancing creativity of children and teachers.
- designs for making existing operation of communication more efficient
- showing the use of information technology for preservation and conservation of soil/water management and mapping of water resources.
- developing innovative designs/models of multimedia equipments/materials and packages for children with special needs.
- technologies in forecasting and warning of cyclones, floods and storms.
- use of geo-stationary satellites in providing information pertaining to meterological processes.

Sub-theme 5

Mathematics and Everyday Life

The world of Mathematics provides us with an unlimited scope to perceive problems pertaining to three situations visualized in the form of concrete, abstraction and intuition. It also deals with data, measurements and observations from Science, mathematical models of natural phenomenon including human behaviour and social systems. As a science of abstract objects, mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation and even experimentation as means of discovering truth. The subject offers distinctive model of thoughts which are versatile and powerful, including mathematical modeling, optimization, logical analysis, inference from data and use of symbols. It also gives an exactness in thinking and provides a quantitative approach.

To encourage and stimulate students' interest in Mathematics, some of the mathematical principles being transacted at school stage with their applications in every day life need to form the basis of

projects/exhibits under this sub-theme.

The exhibits/models in this sub-themes may pertain to:

- principles of sequence and series in several spheres of human activities viz, calculating the amount of money over certain period of time under given rate of simple interest or compound interest/finding depreciated or increased value of a certain commodity over a period of time
- determining expenditures needed for manufacturing water tank/rectangular box/cylindrical/ cone shaped objects of a certain material provided cost of material per square/cube/unit are given
- determining perimeter, area of a region bounded by polygons/the circumference and area of circular region/surface area and volume of cube/cuboid/cylinder/cone/sphere/hemisphere of solid when two basic solids are joined together.
- analytical tools such as conics used in designing parabolic reflectors in automobile head lights/suspension of cable bridges/loud speakers in radio.
- estimating/calculating size of windows/doors/rooms in schools and homes/estimating number of plants lying in a particular flower bed/ calculating height of a building/tree
- applications of linear programming in solving problems pertaining to manufacturing of goods/transport/diet issues
- use of triangles/making geometrical designs on a table cover (for example, in a circular table of certain radius, a design is formed leaving an equilateral triangle in the middle and finding the area of the design);
- establishing a mathematical relation by considering all possible parameters to have maximum profit in producing certain items by a factory.

Sub-theme 6

Science and technology in games and sports

Games and sports too have benefited from the advancements in the field of Science and technology. The form and format of practically all games and sporting events have undergone a variety of changes due to application of technology. These changes pertain to production/fabrication of play materials, safety of sports personnel, playing grounds, rules and regulations for umpiring, coaching and training, recording data, maintaining records and many other related activities. The knowledge of nutritional values of various food items and also evolution of techniques to estimate nutritional requirement of a sports person have facilitated in taking care of health requirements as well as enhancement of level of competitions. There are specialized branches of study in medicine for sports nutrition, physio therapy and injuries.

The exhibits/models in this sub-theme may pertain to:

- demonstrating how athletes/players take advantage of streamlining/conservation of momentum(linear as well as angular)/laws of motion in enhancing their performance during sprint/hurdle race/swimming/high jump/long jump/diving etc.
- demonstrating function of time measuring devices that can correctly measure fractions of seconds and how these are synchronized with camera too decide position of competitors at finishing line
- innovative devices/machines for physical exercise /reducing or enhancing weight/facilitating proper distribution of body weight
- testing to detect use/misuse of drugs/study of anabolic steroids (used for stamina building) and their physiological and side effects.
- demonstrating how live telecast of sports and games events is done
- innovative designs of bicycle to overcome air resistance
- mathematical modeling for (i) indoor(say carom, billiards, chess or any other) and outdoor games to work out correct moves and/or predict winning combinations (ii) to show the trajectory of a football/volleyball/basket ball taking contingence of as many factors (such as ground conditions, speed of air, size and mass of ball, impulse of force, height and distance of net/basket/goalpost) as are possible to handle:
- computer simulations/programmes to play field games like tennis, cricket, hockey, football or to show how the ranking in a racing event (athletics/swimming/boat race/cycling/car race/horse race/ is done in the case of a close finish etc.

CBSE REGIONAL LEVEL SCIENCE EXHIBITION, 2010
REGISTRATION FORM

1. Name of the School ----------
2. Complete address (including state)with Tel.no./ Fax/ e-mail ----------
3. Region ----------
4. Title of the Exhibits/ Projects ----------
5. Sub-theme of the exhibit (see enclosed information) (i) ---------- (ii) (If applicable)----------
6. Details of registration fee/ draft
   Draft Number and dated ----------
   Amount and Bank ----------
7. Brief write up of the Exhibit/ Project including
   (a) Scientific Principle
   (b) Method/ Procedure followed
   (c) Unique features of the exhibit
   (d) Applications in different domains of life
   (e) Further scope of the exhibit/ project
   (The complete write-up of the exhibit not to exceed 200 words)

_____

_____

_____

8. Name of the participant students
   a. ----------
   b. ----------

   ----
9. Name of the escort teacher (with mobile no.)----------

Principal's Signature_____

Full Name----------

CENTRAL BOARD OF SECONDARY EDUCATION

(An autonomous Organisation under the Union Ministry of Human Resource Development, Govt. of India)

'Shiksha Sadan', 17-Rouse Avenue,
New Delhi – 110 002

CBSE/Circular/EO(SD)/2010/ **Circular No. 20**

5th May, 2010

All the Heads of the
CBSE affiliated schools

Subject: Updated termwise syllabi in FIT and Home Science at Secondary level.

Dear Principal,

In continuation with the Board's office Circular No. 12/10 dated 23/03/2010 on updated syllabus in the main subjects at Secondary school level (Classes 9 and 10) for the year 2010 – 11, please find updated syllabi termwise for **Foundation of Information Technology (FIT) and Home Science** for the session 2010-11 as given in Annexure 1 and 2.

This may be informed to all concerned.

Yours faithfully,

(C. GURUMURTHY)
DIRECTOR(ACADEMIC)

Copy to :

1. The Commissioner, Kendriya Vidyalaya Sangathan, 18-Institutional Area, Shaheed Jeet Singh Marg, New Delhi-110 016.
2. The Commissioner, Navodaya Vidyalaya Samiti, A-28, Kailash Colony, New Delhi.
3. The Director of Education, Directorate of Education, Govt. of NCT of Delhi, Old Secretariat, Delhi-110 054.
4. The Director of Public Instructions (Schools), Union Territory Secretariat, Sector 9, Chandigarh-160 017.
5. The Director of Education, Govt. of Sikkim, Gangtok, Sikkim – 737 101.

6. The Director of School Education, Govt. of Arunachal Pradesh, Itanagar-791 111
7. The Director of Education, Govt. of A&N Islands, Port Blair-744 101.
8. The Secretary, Central Tibetan School Administration, ESSESS Plaza, Community Centre, Sector 3, Rohini, Delhi-110 085.
9. All the Regional Officers of CBSE with the request to send this circular to all the Heads of the affiliated schools of the Board in their respective regions.
10. The Education Officers/AEOs of the Academic Branch, CBSE.
11. The Joint Secretary (IT) with the request to put this circular on the CBSE website.
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17. PA to HOD (AIEEE)
18. PA to HOD (Edusat)
19. PRO, CBSE

DIRECTOR(ACADEMIC)

Annexure - 1

Foundation of Information Technology
CODE NO. 165

Learning Objectives:

General

1. To familiarize with basics of IT
2. To develop basic skills of using tools for information representation and processing.
3. To use Information Processing tools for enhancing productivity and quality.

Specific

1. Cognitive domain: Knowledge and understanding.
   To develop basic understanding of IT tools.
2. Psychomotor domain: Skills
   To develop skills in using Information Processing tools
3. Affective domain: Personality traits
   To develop habit of team work, structure presentation and abide by ethical principles of computing

General Instructions

1. The units specified for each term shall be assessed through Formative Assessments and Summative Assessments.
2. In each term, there will be two Formative Assessments (FA1, FA2 in first term and FA3, FA4 in the second term), each carrying 10% weightage.
3. The Summative Assessment in the first term (SA1) will carry 20% weightage and the Summative Assessment in the second term (SA2) will carry 40% weightage.
4. Hands-on skills and projects will carry 40% of the 10% weightage in every Formative Assessment.
5. Assessment of Practical Skills through MCQ will carry 20% weightage in every term end summative assessment.

COURSE STRUCTURE
CLASS IX

TERM I **3 Hours** **80 Marks**

Unit	Description	Theory
1	Basics of Information Technology	17
2	Information Processing Tools	38
3	IT Applications	25
	Total	80

Term I (Theory)

Unit I: Basics of Information Technology

Convergence of technologies – Computer, Communication and Content Technologies.

Computing Technology
Computer System: Characteristics of a computer, components of a computers system – CPU, Memory, Storage Devices and I/O Devices

Memory – Primary (RAM & ROM) and Secondary Memory;

Units of Memory – Byte, Kilobyte, Megabyte, Gigabyte, Terabyte

I/O Devices – Keyboard, Mouse, Printer, Joystick, Scanner, Microphone, OCR, MICR, Light Pen, Barcode Reader, Digital Camera, Speaker, Plotter;

Storage Devices – Hard Disk, CD ROM, DVD, Blu Ray, Pen/Flash Drive, Memory Stick;

Types of Software: System Software (Operating System), Application Software (General purpose application software - Word Processing, Spreadsheet, Presentation, Database Management; Specific purpose application software - Accounting Management, Reservation System, HR Management, Attendance System, Payroll System, School Inventory Control System, Billing System) and Utility Software (Disk/Folder/Files Management, Virus Scanner/Cleaner, Encryption/Decryption Tools),

Unit II: Information Processing Tools

Operating System – Basic concepts of Operating System and its functions (MS Windows, GNU Linux, Unix)

Introduction to Windows: Using Mouse and moving icons on the screen, Task Bar, Different types of menu and menu selection, running an application, Setting system date and time; viewing files, folders and directories, creating and renaming of files and folders, Opening and Closing of Windows, Minimise, Restore and Maximise forms of windows, Basic components of a GUI Window: Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars (Horizontal and Vertical), Using right button of the Mouse, Creating Shortcut, Basic Tools: Text Editor, Painting Tool, Calculator

Office Tools

Word Processing Tool:

Introduction to a Word Processor, Creating and Saving a document, Editing and Formatting a Document: Text Style (B, I, U), Font Type, Size, changing color, alignment of text; Formatting paragraphs with line or paragraph spacing; adding headers and footers, numbering pages, using grammar and spell check utilities, using subscript and superscript, inserting symbols, Print Preview, Printing a document.

Inserting Clipart and Pictures, Page Setting, Bullets and Numbering, Borders and Shading, Format Painter/Paintbrush, Find and Replace, Inserting Tables: inserting, deleting- rows and columns, merging cells, splitting cells.

Unit III: IT Applications

Students are suggested to work on the following areas using Word Processing, Presentation and Spreadsheet Tools.

Domains:

Documentation:

- Report Writing
- Multi-Lingual Greeting card
- Poster making

(A) HANDS ON EXPERIENCE

1. Working on Operating System:

To test some of the following basic system operations on file / folder(s):

- Create
- Rename
- Copy / Cut / Paste
- Delete
- Commands related to Text Editor / Drawing Tool
- Using Clipboard

2. WORD PROCESSING*

(A) document is required to be created for testing the following areas:

- Editing and formatting text and paragraph
- Page and paragraph setup
- Inserting pictures and images

*Printouts of the document(s)/Spreadsheet(s) should be attached with the answer sheet

(B) IT APPLICATION REPORT FILE

Students are supposed to make an IT Application Report File Containing Real life assignments using Word Processing Tool on 4 topics (Report Making, Poster Making, Invitation Cards, Letter/Application writing)

(C) VIVA VOCE

The questions can be asked from any portion of the syllabus covered during Term I of Class IX

TERM I **3 Hours** **80 Marks**

Unit	Description	Theory
1	Basics of Information Technology	4
2	Information Processing Tools	27
3	IT Applications	36
4	Societal impacts of IT	13
	Total	80

Term II (Theory)

Unit I: Basics of Information Technology

Communication Technology
Computer Networking - LAN, MAN, WAN, Internet, Interspace

Wired Networking Technology examples Co-axial Cable, Ethernet Cable, Optical Fiber

Wireless Networking Technology examples Bluetooth, Infrared and WiFi

Content Technology
Data, Information and Multimedia (Picture/Image, Audio, Video, Animation)

Unit II: Information Processing Tools

Office Tools

Presentation Tool:
Introduction to Presentation Graphics, Understanding the concept of Slide Shows, Basic elements of a slide, Different types of Slide Layouts, Creating and saving a Presentation, Different views of a slide: Normal view, Slide Sorter view and Slide Show, Editing and Formatting a slide: Adding Titles, Subtitles, Text, Background, Watermark; Headers and Footers, Numbering Slides;

Inserting pictures from files, Animating pictures and Text with Sound Effects, Timing Text box, Pictures and Slides, Rehearse Timings, Ungrouping and Grouping pictures from Clipart.

Spreadsheet Tool:
Introduction to Spreadsheets, Concept of Worksheets and Workbooks, Creating and Saving a worksheet, Working with a spreadsheet: entering numbers, text, date/time, series using AutoFill, Editing and formatting a worksheet including changing colour, size, font, alignment of text, Inserting or Deleting cells, rows and columns, Formulae-Entering a formula in a cell, using operators(+,-,*,/) in formulae, Relative referencing, Absolute referencing and mixed referencing, Printing a worksheet.

Use simple Statistical functions: SUM(), AVERAGE(), MAX(), MIN(), IF()(without compound statements); Inserting tables in worksheet, Embedding Charts of various types: Line, Pie, Scatter, Bar and Area in a worksheet.

Word Processing Tool:
Using auto-format, Mail Merge, Using simple mathematical expressions, track changes

Unit III: IT Applications

Students are suggested to work on the following areas using Word Processing, Presentation and Spreadsheet Tools.

Domains:

Documentation:

- Mail-Merge Formal/Informal letter

Presentation:

- School Magazine
- Environment (Save Energy) and Pollution (Global Warming)
- Product Advertisement
- Science & Social Science topic from the course
- Trends in Wireless Computing

Analysis Reporting:

- School/Class Result with student-wise and subject-wise marks
- Cricket Score Record
- Weather Forecasting Report

Unit IV: Societal Impacts of IT

Plagiarism, Privacy, Security and Integrity of Information; Intellectual Property Rights, Careers in IT

(A) HANDS ON EXPERIENCE

1. Presentation

A presentation is required to be created with 4 slides for testing the following areas:

- Editing and formatting slides
- Inserting pictures and sounds
- Animating pictures and text with sound effects

2. Spreadsheet*

(A) spreadsheet is required to be created for testing the following areas:

- Formatting cells and data
- Functions & formulae (Relative, absolute and Mixed reference)
- Charts

*Printouts of the document(s)/Spreadsheet(s) should be attached with the answer sheet

(B) IT APPLICATION REPORT FILE

Students are supposed to make an IT Application Report File Containing Real life assignments/ presentations using Presentation Tool and Spreadsheet Tools

- 4 presentations
- 4 spreadsheets with graphs/charts
- 1 word processing document along with mail merge feature

(C) VIVA VOCE

The questions can be asked from any portion of the syllabus covered during Term II of Class IX

COURSE STRUCTURE
CLASS X

TERM I **3 Hours** **80 Marks**

Unit	Description	Theory
1	Basics of Information Technology	25
2	Information Processing Tools	30
3	IT Applications	25
		80

Term I (Theory)

Unit I: Basics of Information Technology

Internet: World Wide Web, Web servers, Web sites, Web Pages, Web Browsers, Blogs, Newsgroups, HTML, Web address, Email address, URL, HTTP;

Services available on Internet: Information Retrieval, Locating sites using search engines and finding people on the net, FTP, Downloading and Uploading files from or two remote site;

Web Services: Chat, email, Video Conferencing, e-Learning, e-Banking, e-Shopping, e-Reservation, e-Groups, Social Networking

Unit II: Information Processing Tools

Office Tools

Database Management Tool :
Basic Concepts and need for a database, Creating a database, Setting the Primary Key, Entering data into a database, Inserting and deleting Fields, Inserting and deleting Records, Data Validation: Field Size, Default Value, Validation Rule, Validation Text, Required, Allow Zero Length.

Information Representation Methods

Hyper Text Markup Language

Introduction to Web Page Designing using HTML, Creating and saving an HTML document, accessing a web page using a web browser (Internet Explorer, Mozilla Firefox, Opera, Apple Safari, Netscape Navigator, Google Chrome);

Elements in HTML: Container and Empty elements, Designing web pages using the following elements:

HTML, HEAD, TITLE, BODY (Attributes: BACKGROUND, BGCOLOR, TEXT, LINK, ALINK, VLINK, LEFTMARGIN, TOPMARGIN), FONT(Attributes: COLOR, SIZE, FACE), BASEFONT(Attributes: COLOR, SIZE, FACE), CENTER, BR (Break), HR(Horizontal Rule, Attributes: SIZE, WIDTH, ALIGN, NOSHADE, COLOR), COMMENTS, ! for comments, H1..H6 (Heading), P (Paragraph), B (Bold), I (Italics), U (Underline), UL & OL (Unordered List & Ordered List Attributes: TYPE, START), LI (List Item),

Unit III: IT Applications

Students are suggested to work on the following areas using Database Management Tool on topics implementing the tools covered in the course.

Domains:

Business Computing

- Personal Data Management System
- School/Class Result with student-wise and subject-wise marks
- Employee Payroll (Computation of monthly salary)
- Stock Inventory (Purchase and issue records)

(A) HANDS ON EXPERIENCE

1. Business Computing Problem:*

A business-computing problem is required to be solved using Database Management Tool (Open Office) for testing the following aspects of database.

Creating and entering data into a database

- Setting the primary key
- Data Validation

2. Web Page Designing *

A problem on Web Page designing (Minimum 2 pages) to be given for testing in the following:

- Adding a title to webpage
- Formatting Text
- Adding Ordered/Unordered Lists
- Writing Text in Paragraphs

The students are supposed to know the tools and style for designing domain specific web pages from real life applications and the topics mentioned in the syllabus.

* Printouts of the document(s) should be attached with the answer sheet

(B) IT Application Report File

Students are supposed to make an IT Application Report File Containing Real life assignments using a Database Management Tool and HTML on topics from the domain:

Must have print outs of the following:

- 4 Database Solutions from Business Computing
- 4 HTML source code along with browser view

(C) VIVA VOCE

The questions can be asked from any portion of the syllabus covered during Term I.

TERM I **3 Hours** **80 Marks**

Unit	Description	Theory
2	Information Processing Tools	30
3	IT Applications	33
4	Societal impacts of IT	17
	Total	80

Term II (Theory)

Unit II: Information Processing Tools

Information Representation Methods

Hyper Text Markup Language
Insertion of images using the element IMG (Attributes: SRC, WIDTH, HEIGHT, ALT, ALIGN), Super Script SUP, Subscript SUB, Creating Table TABLE (BACKGROUND, BGCOLOR, WIDTH, CELLSPACING, CELLPADDING, BORDER), TR, TD, ROWSPAN, COLSPAN

Internal and External Linking between Web Pages: Significance of linking, A - Anchor Element (Attributes: NAME, HREF, TITLE, ALT)

XML
Introduction to XML, Difference between XML and HTML with respect to the following:

Data separation, data sharing, document structure, tags, nesting of elements, attributes, values.

XML Elements – Defining own tags in XML, root elements, child elements and their attributes;

Comments in XML, White space and new line in XML, well formed XML documents, validating XML documents, XML Parser, Viewing XML documents in a web browser.

Unit III: IT Applications

Students are suggested to work on the following areas using HTML on topics implementing the elements covered in the course.

Domains:

Website Designing

- Personal Blog with Name, Photo, Areas of Interest, School, State, Country
- School Website – Infrastructure, Facilities, Uniform, Motto, School Pictures, Extra-Curricular Activities, Subject and Language Options
- Travel and Tourism
- Indian Statistics – State wise Area, Population, Literacy (Enrolment in Primary, Middle, Secondary, Senior Secondary), Gender Ratio,
- Environment (Save Energy) and Pollution (Global Warming)

Unit IV: Societal Impacts of IT

Virus, Worms, Trojans and Anti-Virus Software, Spyware, Malware, Spams, Data Backup and recovery tools and methods, Online Backups, Hacker and Cracker with regard to Computer Data and Applications

Information security provisions in e-commerce

(A) HANDS ON EXPERIENCE

1. Web Page Designing *

A problem on Web Page designing (Minimum 2 pages) to be given for testing in the following:

- Adding a title to webpage
- Formatting Text
- Inserting Image
- Adding Ordered/Unordered Lists
- Writing Text in Paragraphs
- Adding content in Tabular Form

The students are supposed to know the tools and style for designing domain specific web pages from real life applications and the topics mentioned in the syllabus.

2. XML Assignment *

Students to be asked to create an XML document on the lines of XML concepts covered in theory syllabus.

* Printouts of the document(s) should be attached with the answer sheet

(B) IT Application Report File

Students are supposed to make a IT Application Report File Containing Real life assignments on HTML and XML on topics from the domain:

- 4 HTML source code along with browser view
- 2 XML Documents

(C) VIVA VOCE

The questions can be asked from any portion of the syllabus covered during Term II.

Annexure - 2

HOME SCIENCE
CODE NO. 064

General instructions

1. **The units specified for each term shall be assessed through both Formative and Summative Assessments**
2. **In each term, there will be two Formative Assessments,each carrying 10% weightage.**
3. **The Summative Assessment in the I term will carry 20% weightage and the Summative Assessment in the II term will carry 40% weightage.**
4. **Hands-on practical skills and projects will necessarily be assessed through formative assessments.**

COURSE STRUCTURE
CLASS IX

I TERM **3 Hours** **80 Marks**

	UNITS	MARKS
I	Concept and Scope of Home Science	06
II	Family -A Unit of Society	18
III	Food and its Relation to Health	18
IV	Methods of Cooking	20
V	Function of Home	18
	Grand Total	80

Unit I Concept and Scope of Home Science **6 marks**

i) Concept and Scope of Home Science

Unit II Family –A Unit of Society **18 marks**

i) Types of family-nuclear and joint (advantages and disadvantages)

ii) Size of family –small and large families (advantages and disadvantages)

iii) Reasons for change in family types

iv) Stages of family –beginning, expanding and contracting

Unit III Food and its Relation to Health **18 marks**

i) Definition of food, health, nutrition, nutrients and balanced food

ii) Functions of fooda)

a) Physiological- body building, energy giving, protective and regulating

b) Social

c) Psychological

iii) Inter relationship between food and health

Unit IV Methods of cooking **20 marks**

Boiling, steaming, pressure cooking, frying, roasting and baking- brief description of each and suitability for foods.

Unit V Function of Home **18 marks**

i) Protective function

ii) Social function

[Characteristics of functional house-security, lighting, ventilation, ventilation, sanitation, disposal of wastes (water, garbage, human excreta)]

PRACTICALS

1. Observe your own family for type and size. Record the activities of all family members on any one day.
2. Prepare snacks /dishes using different methods of cooking. Evaluate and record taste, texture and colour of food.
3. Study your own house for light, ventilation, disposal of waste and surroundings. Record your observations.
4. File work.

II TERM **3 Hours** **80 Marks**

	UNITS	**Marks**
VI	Safety in the House	30
VII	Fabrics Available in the Market	30
VIII	Selection of Clothes	20
	Total	80

Unit VI Safety in the House **30 marks**

i) Preservation of accidents at home-cuts, falls, buns, electric shock, poisoning, safe use of fuels

ii) Management of emergencies-first aid for cuts, fractures, burns, electric shock, poisoning and bites (snake, dog)

Unit VII Fabrics Available in the Market **30 marks**

i) Definition of fibre and yarn.

ii) Classification of fibre on the basis of origin and length.

iii) Characteristics of fibres-length ,strength, absorbency, heat conductivity ,elasticity, effect of heat, moth and mildew, acids and alkalis.

iv) Yarn making(drawing and twisting; spinning)

v) Construction of fabric-weaving, knitting, fetting.

Unit VIII Selection of Clothes **20 marks**

Factors effecting selection of clothes

i) fabric related factors(characteristics of fibres, construction)

ii) person related factors(age, occupation, occasion, fashion, figure, comfort)

iii) other factors-climate and cost

PRACTICALS

1. Study your house for measures of safety against accidents and give suggestions for improvement.
2. Practice giving first aid for cuts ,burns, ,bites., electric shock, fractures,
3. Practice dressings for wounds on hand, elbow, finger, wrists and ankle,
4. Collect samples of fabrics available in the market and present a comparative picture on the basis of cost (optional), durability, appearance and suitability.
5. Identification of fabric – physical appearance and burning tests.

COURSE STRUCTURE
CLASS IX

I TERM **3 Hours** **80 Marks**

	UNITS	MARKS
I	Principles of Growth and Development of Child	18
II	Play	17
III	Nutrients	23
IV	Meal Planning:	12
V	Food Hygiene & Methods of Storage of Food	10
	Total	80

Unit 1: Principles of Growth and Development of Child: **18 marks**

Growth and development of children between birth to 3 years. Important milestones in physical, motor, social, emotional and language development of children; physical, social and emotional needs of children.

Unit II: Play : **17 marks**

Meaning, need and types of play in children between birth and 3 years; characteristics of play- active, passive, natural, serious and exploratory, Play materials for children-Characteristics of play material.

Unit III: Nutrients : **23 marks**

Functions, sources and deficiency of Carbohydrates, Proteins, Fats Minerals-Iron, Calcium and Iodine and Vitamins –Vitamin A,B1,B2,Vitamin C and Vitamin D.Loss of nutrients during cooking ,conservation and enhancement of nutrients.

Unit IV Meal Planning: **12 marks**

Concept, need and factors affecting meal planning –age, sex, climate, occupation, physical needs, number of family members, economic status of family, availability of food, family traditions, likes and dislike and occasion; Food Groups (Basic :5 suggested by ICMR) ;Use of food groups in planning balanced diet ,food allowances suggested by ICMR.

Unit V Food hygiene and method of storage of food. **10 marks**

Rules of hygienic handling of food, Method of storage of perishable, semi-perishable and non perishable foods.

PRACTICALS

1. Observe and record physical and motor characteristics of a child at any given stage between 0-3 years of age.

2. Observe play activities of children between 1-3 years of age .Record their interests and characteristics.
3. Make a suitable play object for a child between 0-3 years.
4. Prepare dishes using methods for enhancement of nutrients.

II TERM **3 Hours** **80 Marks**

	UNITS	MARKS
VI	Resources Available to Family:	11
VII	Money Management	10
VIII	Consumer Education	15
IX	Care of Clothes	31
X	Quality Check of Apparel	13
	Total	80

Unit VI: Resources available to family: **11 marks**

Types of resources- Human (energy, time, knowledge and skill) Non –Human (money, material goods and community resources) general characteristics of resources, wise use of resources personal and shared.

Unit VII: Money Management: **10 marks**

Family income and expenditure and importance of saving and investment.

Unit VIII: Consumer Education: **15 marks**

Consumer rights and responsibilities, consumer problems, malpractices of traders-price variation, poor quality, adulteration, faulty weights and measures, non-availability of goods, misleading information, lack of standardized products, misleading advertisements, aids to help consumers –standardization marks, labels, packages, advertisements, pamphlets and leaflets.

Unit IX Care of Clothes: **31 marks**

Cleaning and finishing agents used in everyday care of clothes in the homes: stain removal (precautions and methods) laundering and storage of cotton, silk, wool and synthetics.

Unit X Quality check of apparel : **13 marks**

Workmanship of ready made, tailor made garment, reading of labels on clothes.

PRACTICAL

1. Prepare useful household items from recycled waste materials.
2. List any five malpractices you have observed in the market.

3. Practice basic stitches-tacking, running, hemming and back stitch.
4. Remove common stains-curry, paint, ball pen ink, lipstick rust, tea and coffee.
5. Launder and finish cotton, silk, wool and synthetic articles.
6. Evaluate workmanship of a stitched garment.
7. Prepare a care label for a ready made garment