



ST. MICHAEL'S SCHOOL

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(An English Medium Co-Educational School - Affiliated to C.B.S.E, Bharat)

SUMMER VACATIONS ASSIGNMENT

Summer Vacations Assignment (2019 - 2020)

CLASS - IX

Dear Parents,

Holidays are time when you can connect with your child in many ways. As you are your child's first and most important teacher, you can encourage your child's love for learning by participating in educational activities at home. Working together on the activities will help your child build confidence, learn to reason and develop skills necessary for his/her education. Holidays are the best time to nurture a child's talent and to learn something fruitful.

1. Take your child for a morning walk, talk about things you see around.
2. Play indoor games with your child like ludo, carom, scrabble etc. Feed grains to the birds.
3. Let your child help around the house doing small jobs like dusting, cleaning the table, filling water bottles, watering the plants, etc.
4. Spend as much time as possible with your child during holidays.
5. Please make sure that your child completes his/her holiday assignment.
6. Make your child do yoga everyday at home during summer vacations.
7. Kindly make your child write H.A. and date at the top of all the pages of copies and books given for holiday assignment.
8. Motivate your child to get up early and go to bed early and to say morning and bed time prayers.
9. Kindly encourage your child to speak in English.
10. Please ensure that your child doesn't do extra work / rough work in C.W. copies.
11. Encourage your child to speak magic words like Thank you, Please, Excuse me, Sorry etc.
12. The children are supposed to submit Holiday Homework on 12th June 2019.



*Assignments for all the subjects have been given to your ward. You should encourage your child to do the assignments on a daily basis and avoid procrastinating things so that the assignments don't get piled up for the last minute. **For Holiday Assignment, child will get grades in the report card.***

Finally it is requested to kindly monitor and review the progress of your child regarding their summer assignments on a daily basis & keep him/her motivated so that the assigned task is completed well in time in a regular and smooth manner.

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1. Summer vacation will begin from **17th May, 2019 (Friday)**.
 2. School will re-open after summer vacation on **12th June, 2019 (Wednesday)**.
 3. School office will remain open till **24th May, 2019 (Friday)**.
[Time : Monday to Saturday: 09:00 a.m. to 12:30 p.m.]
 4. School office will remain closed from **25th May, 2019 (Saturday) to 5th June, 2019 (Wednesday)**
 5. School office will resume its work after summer vacation from **6th June, 2019 (Thursday)** and timing will be from **09:00 a.m. to 12:30 p.m.**

☺ Happy Holidays Have a cool summer ahead and take good care of yourself and your family. ☺

English

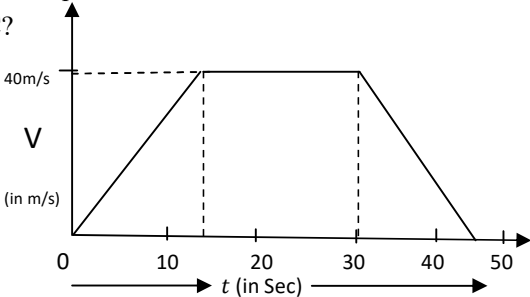
1. Give two proofs to show that Margie's mother was very concerned about her studies.
2. Describe Margie's teacher. Do you think she liked him? Give a proof to support your answer.
3. How did Evelyn Glennie 'hear' music inspite of being deaf?
4. What had Evelyn's Headmistress suggested when it was confirmed that Evelyn's hearing was impaired?
5. The account about Bismillah Khan shows in many ways the idea of religious harmony. Discuss any two ways it does so.
6. Which instrument did Bismillah Khan play? Describe any two ways in which he was honoured for his talent.
7. Name the different things the little boy wished to buy or enjoy at the fair. What stopped him from asking his parents?
8. When did the boy realize he was lost? How did he react immediately after that?
9. What message did the story 'The lost child' convey to you? How did you get that message?
10. Give an end to the story 'The lost child' by describing whether or not the kind man was successful in finding the parents of the lost boy.

Mathematics

1. Without actual division show that $(x^3 - 3x^2 - 13x + 15)$ is exactly divisible $(x^2 + 2x - 3)$
2. If $(x^3 + ax^2 + bx + 6)$ has $(x - 2)$ is a factor and leaves remainder 3 when divided by $(x - 3)$, find the values of a and b.
3. If both $(x - 2)$ and $(x - \frac{1}{2})$ are factors of $px^2 + 5x + r$ prove that $p = r$
4. Factorize:
 - a) $x^3 - 3x^2 - 9x - 5$
 - b) $x^3 - x^2 + ax + x - a - 1$
 - c) $x^4 + x^2y^2 + y^4$
 - d) $9x^2 + 3a - 8b - 6 + b^2$
 - e) $\frac{1}{3}x^2 - 2x - 9$
 - f) $7x^2 + 2\sqrt{14}x + 2$
 - g) $a^3 - 12a(a - 4) - 64$
 - h) $x^6 - 7x^3 - 8$
 - i) $2\sqrt{2}a^3 + 8b^3 - 27c^3 + 18\sqrt{abc}$
 - j) $5(3x + y)^2 + 6(3x + y) - 8$
 - k) $8(x + y)^3 - 27(x + y)^3$
 - l) $8a^3 + 125b^3 - 6 + c^3 + 120abc$
5. Evaluate:
$$\frac{15}{\sqrt{10} + \sqrt{20} + \sqrt{40} - \sqrt{5} - \sqrt{80}}$$
, It being given that $\sqrt{5} = 2.236$ and $\sqrt{10} = 3.162$
6. If $\frac{9^n \times 3^2 \times (3^{-n/2})^{-2} - 27^n}{3^{3m} \times 2^3} = 27^n = \frac{1}{27}$ Prove that $m - n = 1$
7. if $a + b + c = 5$ and $ab + bc + ca = 10$. Prove that $a^3 + b^3 + c^3 - 3abc = -25$
8. If $p = 2 - a$, prove that $a^3 + 6ap + p^3 - 8 = 0$
9. Simplify:
$$\frac{(a^2 - b^2)^3 + (b^2 - c^2)^3 + (c^2 - a^2)^3}{(a - b)^3 + (b - c)^3 + (c - a)^3}$$
10. If a, b, c are all non - zero and $a + b + c = 0$ Prove that $\frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab} = 3$

11. Simplify: $\frac{2\sqrt{6}}{2+\sqrt{3}} + \frac{2\sqrt{2}}{\sqrt{6}+\sqrt{3}} - \frac{8\sqrt{3}}{6+\sqrt{2}}$
11. If $x = 3 + 2\sqrt{2}$, find the value of $\sqrt{x} + \frac{1}{\sqrt{x}}$
12. Express with a rational denominator: $\frac{1}{\sqrt{3}-\sqrt{2}-1}$ also find the value if $\sqrt{2} = 1.414$ and $\sqrt{6} = 2.449$
13. Simplify: $\frac{1}{1+x^{b-a}+x^{c-a}} + \frac{1}{1+x^{a-b}+x^{c-b}} + \frac{1}{1+x^{b-c}+x^{a-c}}$
14. If $9^{x+2} = 720 + 9^x$, find $(4x)^{\frac{1}{4}}$
15. If $a^x = b$, $by = c$, $c^z = a$, prove that $xyz = 1$
16. If $a^x = b^y = c^z$ and $b^z = ac$, prove that $y = \frac{2xz}{x+z}$
17. If $abc = 1$, show that: $\frac{1}{1+a+b^{-1}} + \frac{1}{1+b+c^{-1}} + \frac{1}{1+c+a^{-1}} = 1$
18. If $x = \frac{1}{3-\sqrt{8}}$ find the value of $x^3 - 2x^2 - 7x + 5$

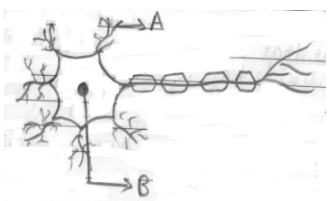
Science (Physics)

- An object is moving with uniform speed in a circle of radius 7 m. Calculate the distance travelled and displacement when it completes half the circle. What type of motion does the object possess?
 - Study the speed-time graph of a car given below and answer the questions that follow:
 - What type of motion is represented by OA, AB and BC?
 - What is the acceleration of the car from O to A?
 - What is the acceleration of the car from A to B?
 - What is the retardation of car from B to C?
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- A body thrown vertically upwards reaches a maximum height h , it then returns to ground. Calculate the distance travelled and its displacement.
 - In a long distance race, the athletes were expected to take four rounds of the track such that the line of finish was same as the line of start. Assuming that the length of the track was 200 m, answer the following:
 - What is the total distance to be covered by the athletes?
 - What is the displacement of the athletes when they touch the finish line?
 - Is the motion of the athletes uniform or non-uniform?
 - A cyclist completes five rounds of a circular track of radius 21 m in 12 minutes. Calculate his speed.
 - What does the slope of a velocity- time graph represent?
 - State which of the following situations are possible and give an example of each of these:
 - A body moving with constant acceleration but with zero velocity.
 - A body moving with a constant velocity in an accelerated motion.
 - A body moving horizontally with an acceleration in vertical direction.
 - Prove graphically:
 - $v = u + at$
 - $s = ut + \frac{1}{2}at^2$
 - $v^2 = u^2 + 2as$
 - State the type of motion shown by a freely falling stone.
 - When a stone is thrown vertically upwards, its velocity decreases continuously. Why?
 - Give an example of a motion in which average velocity is zero, but the average speed is not zero.

Science (Chemistry)

1. The smell of hot sizzling food reaches you several metres away, but to get the smell from cold food you have to go close. Give reasons.
2. A diver is able to cut through water in a swimming pool. Which property of matter does this observation show?
3. What are the characteristics of the particles of matter?
4. a) Tabulate the differences in the characteristic of states of matter.
b) Comment upon the following:
Rigidity, compressibility, fluidity, filling gas in a container, shape, kinetic energy and density.
5. Give reasons:
 - a) A gas fills completely the vessel in which it is kept.
 - b) A gas exerts pressure on the walls of the container.
 - c) A wooden table should be called a solid.
 - d) We can easily move our hands in air but to do the same through a solids block of wood we need a karate expert.
6. Convert the following temperature to Celsius scale:
 - a) 300 k
 - b) 573 k
7. What is the physical state of water at:
 - a) 250°C
 - b) 100°C
8. How does the water kept in an earthen pot (matka) become cold during summer?
9. Why does our palm feel cold when we put some acetone or petrol or perfume on it?
10. Why are we able to sip hot tea or milk faster from a saucer rather than a cup?

Science (Biology)

1. Name the nucleic acids present in an animal cell.
2. What is the significance of:
 - a) Presence of cell sap in vacuoles.
 - b) Presence of SER in liver cells.
 - c) Presence of ribosomes on RER.
3. A student recorded the mass of dry raisins as 3 gms. and the mass of raisins after soaking in water as 4.8 gms. Calculate the percentage of water absorbed by raisins.
4. Write two statements to show that lysosomes are aptly called the suicide bags of the cell.
5. Name:
 - a) The cells which have a changing shape.
 - b) The cells which have a typical shape.
6. Two beakers A and B contain plain water and concentrated sugar solution respectively. Equal no. of dried raisins are kept in them for a few hours and then taken out.
 - a) Explain the reason for the difference in the physical appearance of raisins which were taken out of the two beakers.
 - b) On the basis of above observation, categorize the two solutions as hypotonic and hypertonic.
7. Describe the plastids which are green and involved in photosynthesis (with diagram)
8. Label 'A' and 'B' correctly:

9. a) Expand RER & SER. Differentiate between them in structure and functions.
b) What is lacking in a virus which makes it dependent on a living cell to multiply?
10. a) Expand DNA.
b) In which part of the cell it is found? State its function?

Social Studies (History)

1. Which incident sparked the French Revolution?
2. Why was Bastille hated by all?
3. How did the American war of Independence add more debt to France?
4. What was the old regime?
5. Describe the division of the French society before the French Revolution.
6. Explain the turmoil in France while the national Assembly was busy at Versailles.
7. Describe how did the new political system of constitutional monarchy practice in France.
8. Describe the main causes of the French revolution.
9. Explain the events which led to the outbreak of French Revolution.
10. How did Philosophers influence the thinking of the people in France?

Social Studies (Geography)

1. What is meant by the Indian standard time? Why do we need a standard meridian for India?
2. Write the name of union territories along the Western and Eastern coasts.
3. Classify the states into four groups each having common frontiers with.
a) Pakistan b) China c) Myanmar d) Bangladesh
4. Name the countries which are larger than India.
5. The sun rises two hours earlier in Arunachal Pradesh than Gujarat in the west. Give reason.
6. The central location of India at the head of the Indian ocean is considered of great significance. Why?
7. What are Shiwaliks? Write any two characteristics of it.
8. Write any five features of Himalaya.
9. Write a short note on the Island groups in India.
10. Explain the regional divisions of Himalayas.

Social Studies (Political Science)

1. ZANU-PF wins the election every five years in Zimbabwe. Are the leaders of ZANU-PF close to the values of democracy? Justify the statement in three points.
2. How does democracy improve the quality of decision making.
3. What is democracy? Mention four features of democracy.
4. "PRI used many dirty tricks to win elections in Mexico." Justify the statement with five examples.
5. "Democracy is the most popular form of government emerging in modern times. Still its shortcomings cannot be ruled out." Justify the statement by assessing any five shortcomings of democracy.
6. Give any five arguments in favour of democracy.
7. What is a referendum?
8. What was the 'legal Framework order' of 2002 of Pakistan?
9. Who appoints the President of China? What is China's Parliament called?
10. In which country women do not have the right to vote? What is electoral system of Fiji?

Social Studies (Economics)

1. Differentiate between multiple cropping and modern farming methods.
2. Mention the various non-farm activities in village Palampur.
3. Critically evaluate the success of green revolution.
4. Suggest a few ways to increase productivity from a given land.
5. Explain the various factors of production.
6. If population is a resource then why do we talk of controlling population? Which type of population should be controlled?
7. What are the two factors that determine the quality of human capital formation? Why?
8. What are the steps taken by the government to improve educational standard in India?
9. Write a short note on 12th five year plan with special emphasis on education.
10. How does health play an important role in human capital formation?

Computer

1. Draw the following apps icons and write about the function of these apps.
 - a) Google Play Store
 - b) Phone Book or Contacts
 - c) Calendar
 - d) Maps
 - e) Camera
 - f) WhatsApp
2. Visit Indian government websites, such as the official web portal of Department of School Education, MHRD, Government of India. Make a list of all the valuable information and the services you can obtain for yourself.
3. Make a list of e-government services that are provided by other countries.
4. Identify the advantages of using ICT over conventional methods in various areas.
5. Give an example of the use of IT in the following areas.

Sl. No.	Areas	Examples
1.	Criminal Identification	
2.	Education	
3.	Banking	
4.	Online Transaction	

6. Draw a flow chart to describe the parts of computer.
7. Collect and paste pictures of different types of expansion cards and ports.
8. Write the extension of these file types.
 - Open Document text
 - Open Document Database
 - Open Document Spreadsheet
 - Music
 - Picture or Image
 - Open Document Presentation
 - Open Document Drawing
 - HTML Document
 - XML Document
 - Portable Document Format
9. Write the steps to create, Rename, Copy a Folder.
10. Explain these terms:
 - a) POST
 - b) Boot
 - c) Shut Down

Hindi

1. कर्नाटक के विशप ने स्कूल खोलने से क्यों मना किया ? क्या धर्म के नाम पर स्कूल खोलना प्रशंसनीय है ? 'मेरे संग की औरते' पाठ के आधार पर बताइए।
2. कबीर के सभी साखियों को लिखकर उसका अर्थ लिखें।
3. समास किसे कहते हैं ? तथा इसके सभी भेदों को सोदाहरण बताएँ।
4. किन्हीं पाँच कवियों का सचित्र परिचय लिखें।
5. अपने गर्मी की छुट्टियों का सदुपयोग किस प्रकार किया संस्मरण लिखें।
6. मन के हारे हार है मन के जीते जीत
अथवा
'जीवन में अनुशासन का महत्व' पर निबंध लिखें।
7. आपके छोटे भाई को पढ़ाई के साथ-साथ चलनेवाली अतिरिक्त गतिविधियों में भाग लेने में रुचि नहीं है। उसे पत्र द्वारा ऐसी गतिविधियों का लाभ बताते हुए उनमें भाग लेने के लिए प्रेरित करें।

Sanskrit

1. सर्वनां शब्दरूपों को लिखें। (तीनों लिंगों में)
 - क) अस्मद्
 - ख) युष्मद्
 - ग) किम्
2. रूपों को लिखे पाँचों लकारों में :
 - क) पठ्
 - ख) अस्
 - ग) पा (पिव्)

3. निम्न वाक्यों को संस्कृत में अनुवाद करें।
 क) वह बच्चा विद्यालय जाता है।
 ख) तुम पढ़ने के लिए विद्यालय जाते हो।
 ग) बालक बन्दर से डरता है।
 घ) शीला व्याकरण धीरे-धीरे पढ़ती है।
 ङ) वृक्ष के ऊपर बन्दर बैठे हैं।

4. सन्धि /सन्धिविच्छेदं कुरुत।

- क) दैत्यारिः - _____ + _____
 ख) दुखान्तः - _____ + _____
 ग) कन्या + अर्थी - _____
 घ) सीता + अस्ति - _____
 ङ) सु + उक्ति - _____

5. प्रश्ननिर्माणं कुरुत।

- क) ग्रामे निर्धनास्त्री अवसत्।
 ख) सूर्योदयात् पूर्वमेव बालिका तत्रोपस्थिता।
 ग) अद्य विद्यालयम् न गमिष्यामि।
 घ) त्वम् सड.कटात् माम् उद्धृत वती।

6. पठित गद्यांश पठित्वा प्रश्नानाम् उत्तराणि लिखत।

निनादय नवीनामये पाणि। वीणाम्
 लतानां नितान्तं सुमं शान्तिं शीलम्।
 चले दुच्छलेत्कात्त सलिलं सलीलम्
 तवाकर्ण्य वीणायदीनां नदीनाम्।

एकपदेन उत्तरत।

- क) 'सुम' शब्दस्य पर्याय किम् ?
 ख) लतानां नितान्तं शान्तिं शीलम् किम् ?

II. पूर्णवाक्येन उत्तरत।

- क) केषां जलं वीणायाः ओजपूर्णं स्वरं श्रुत्वा उच्छलेत् ?

III. भाषिककार्यम् ।

- क) 'नितान्तम्' परदे का सन्धिः वर्तते ?
 ख) 'आकर्ण्य' एतस्मिन् पदे कः उपसर्गः अस्ति ?

7. प्रश्ननिर्माणं कुरुत।

- क) अपरा वृद्धा लालची आसीत्।
 ख) मदीया भाता अतीव निर्धना वर्तते।
 ग) त्वम् शीघ्रमेव स्वगृहं गच्छ।
 घ) ग्रामे एका अपरा लुब्धा वृद्धा न्यवसत्।
 ङ) लुब्धया बालिकया लोमस्य फलं प्राप्तम्।
