

SUMMER VACATION

*Summer, Summer almost here,
Let's give summer a big fat cheer!
Of this fact I'm surely clear,
Summer is the best time of year.*

Dear Parents,

Holidays are time when you can connect with your child in many ways. As parents are the first and the most important teacher for a child, you can encourage your child to participate in many educational activities at home and promote his/her quest to learn. Working together will not only help your child to build, learn and develop his/her skills but also strengthen your bond with him/her. We wish you a very happy and a fruitful family time during this summer vacation.

Instructions :

1. Parents are requested to encourage their child to complete the activities independently.
2. Inspire them to do neat work and tell them the importance of neatness.
3. Devote a fixed amount of time everyday to finish the work gradually, to avoid piling of work. Teach them about time management.
4. **All assignments are to be done in the school assignment file or as mentioned.**
5. **All the activities will be assessed in the 'Subject Enrichment' category and will be marked in the respective subjects.**
6. The activities should be submitted to school on **Wednesday, 06 July, 2022.**
7. A copy of the holiday activities is available on the school website: www.angels-school.com

*Have a fun, safe and memorable
'Summer Vacation'.*

ANGEL'S PUBLIC SCHOOL

CLASS – X HOLIDAY HOMEWORK SESSION 2022–23

SUMMER VACATIONS HOLIDAY HOMEWORK

Subjects	Homework
English	<p>(a) Find out at least 20 new words from the chapters/ poems done in class & describe their meanings in your notebook. Use these words in a story about a topic or incident of your choice in about 100-120 words.</p> <p>(b) Complete the worksheet. [ATTACHED WORKSHEET – I, II,III]</p>
Hindi	स्वतंत्रता आंदोलन में निम्नलिखित महिलाओं ने जो योगदान दिया, उसके बारे में संक्षिप्त जानकारी प्राप्त करके लिखिए एवं उनसे संबंधित चित्रों का संग्रह भी कीजिए । (क) सरोजिनी नायडू (ख) अरुणा आसफ अली (ग) कस्तूरबा गांधी
Maths	Complete the worksheet. [ATTACHED WORKSHEET – IV]
Science	<p>BIOLOGY :- (1) Complete your practical file. (2) Read the chapter Life Processes and Control & Coordination. (3) Draw a mind map of following topic. (a) Transportation in Humans, (b) Nutrition in Humans. (4) Draw a well labeled diagram of the (a) Human heart (b) Excretory system, (c) Digestive System.</p> <p>PHYSICS :- (1) Draw the conditions for the convex and concave mirrors neatly. (2) Write the uses of convex and concave mirrors in daily life. (3) Difference between real & virtual images. (4) Write 5 numericals each on convex and concave mirror.</p> <p>CHEMISTRY :- (1) Write five coloured changing reactions involving the following. (a) Displacement reaction (b) Double displacement reaction.</p> <p>(2) Collect samples of each five. (a) Acidic substance (b) Basic Substance [solid only] Tag them onto the assignment sheet. (3) Write ten balanced equations (step wise)</p>
Social Science	<p>Art Integrated Project.</p> <p>Prepare a project file on 'Consumer Awareness'. The project should include the following. (a) Consumer Rights (b) Consumer Duties (c) Effect of ongoing pandemic on the consumer. (paste or draw relevant pictures related to the topic).</p>
Art & Craft	Tribal Face mask – Make a Tribal face mask with the help of cardboard/ disposabal bottle, air dry clay and acrylic colours.

[ATTACHED WORKSHEET – I]

Complete the following passages by filling in the blanks with suitable words. Write your answers in the space provided.

(1)

Twenty years ago, kids in school had never heard of the internet. Now, I will bet you can't find a single person in your school (a) hasn't at least heard of it. In fact (b) of us have been using it on a regular basis and even have access (c) it from our homes! The internet is a vast resource to (d) types of information. You (e) enjoy using it to research for a school project, downloading your favourite songs or communicating (f) friends and family. But (g) anyone can put anything on the internet, you also (h) to be careful and use your best judgement and a little common sense.

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(2)

Humans, unlike many (a) animals, are omnivores. We require both vegetable matter (b) meat to be fully healthy although some humans manage (c) survive reasonably healthily whilst consuming (d) animal products at all, finding their protein mainly (e) nuts and seeds. To carry out (f) many complicated functions, the human body requires seven categories namely carbohydrates, proteins, fibre, minerals, vitamins, fats and water.

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[ATTACHED WORKSHEET – II]

(3)

The Boston tea party began (a) England, began putting unfair taxes on the prices of imported items. Cloth, tea and spices were the (b) abused because tea was new, cloth was essential, and spices were used for cooking. Settlers in New England refused (c) pay these outrageous sums. When a new boat full (d) tea was left unguarded, the settlers knew this was probably their only chance. They disguised (e) as Indians, as England was familiar (f) them, and dumped the tea overboard into the harbour. Now there was (g) more tea to put taxes on. This eventually (h) to the Revolutionary War.

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(4)

As you go about your day-to-day life, you may also find that (a) are things that you want to buy that cost (b) lot of money. For instance, you (c) want to buy a nice video game that costs Rs. 5000, (d) your monthly allowance is only around Rs. 1000. So, (e) order to get your video game, you need to patiently set aside (f) of your allowance. In other words, you need (g) systematically save money to buy the video game in a (h) months.

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(5)

Skin burns are common, (a) contrary to popular opinion, do not place an ice cube (b) the affected spot, says Erik Senger from Germany's Association of Dermatologists, as the ice (c) freeze the skin. A better method is to place the burn under cold running water for a (d) minutes.

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(6)

A library is not a luxury, but (a) of the necessities of life, said Henry Ward Beecher. (b) organised collection of books and other printed material, manuscripts (c) more, a library is a storehouse of knowledge. A city or a town without a library is bereft (d) its soul. For, it is the library that allows a person room (e) learn, understand and grow. It is the wealth of information (f) is stored on those countless shelves that can (g) you a glimpse of (h) lies in the world outside your orbit.

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[ATTACHED WORKSHEET – III]

Grammar (Editing : Error Correction)

(A) The following passage contains some errors which have been underlined. Edit it by choosing from the appropriate options.

Man has learnt to (a) communicated in a variety of ways. There are examples of communities (b) used whistles or tunes to (c) expressed their ideas without bringing (d) at words at all. Animals (e) to had a great range of sounds (f) from which they (g) will communicate fear, alarm, joy, warning, anger (h) so well as happiness.

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| (a) (i) communicating | (iii) communication |
| (ii) communicate | (iv) communicates |
| (b) (i) used to whistles | (iii) using whistles |
| (ii) using whistling | (iv) to use whistles |
| (c) (i) expressing | (iii) express |
| (ii) expresses | (iv) have expressed |
| (d) (i) into | (iii) through |
| (ii) in | (iv) on |
| (e) (i) to having | (iii) two have |
| (ii) too have | (iv) too are having |
| (f) (i) in | (iii) by |
| (ii) for | (iv) with |
| (g) (i) may | (iii) can |
| (ii) ought to | (iv) should |
| (h) (i) as good as | (iii) so good as |
| (ii) as much as | (iv) as well as |

(B) The following passages have not been edited. There is an error in each of the lines against which a blank is given. Write the incorrect word and the correction in the space provided. Remember to underline the word you have supplied.

(1)

India dwindling wildlife got a (a)
boost if biologists in Tamil Nadu (b)

find a frog after 136 years, (c)
the old rediscovery in the (d)
global wildlife history. Five frog lost (e)
30 from 136 years ago have been (f)
found, earning India acclaim for (g)
International Union for Conservation of
Nature and Conservation International,
twice leading global wildlife groups. (h)

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(2)

Nowadays grown-ups seems to talk (a)
about nothing else and prices. (b)
Someone is moaning and groaning (c)
about the steep rise in the price on (d)
petrol and wondering why to (e)
cut down its use of cars. (f)

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(3)

Webpage is a document connect to (a)
the World Wide Web. They can contain (b)
text, graphics, audio and video files
or files that would be downloaded and (c)
hyperlinked to another pages or websites. (d)

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[ATTACHED WORKSHEET – IV]

1. Can two numbers have 16 as their HCF and 380 as their LCM? Give reason.
2. Find the value of k for which the equation $x^2 + k(2x + k - 1) + 2 = 0$ has real and equal roots .
3. Find the smallest number which when increased by 17 is exactly divisible by both 520 and 468.
4. If $\tan \theta + \sin \theta = p$ and $\tan \theta - \sin \theta = q$; prove that $p^2 - q^2 = 4\sqrt{pq}$
5. If the HCF of 657 and 963 is expressible in the form of $657x + 963 \times (-15)$, find the value of x .
6. For what value of a and b does the pair of linear equations have an infinite number of solutions ?
 $2x + 3y = 7$
 $(a - b)x + (a + b)y = 3a + b - 2$
7. Find the largest number which on dividing 1251, 9377, 15628 leaves the remainders 1, 2, 3 respectively.
8. If the roots of the equation $(a - b)x^2 + (b - c)x + (c - a) = 0$ are identical , then prove that $2a = b + c$ or $\{b, a, c \text{ are in AP}\}$
9. Find the greatest number of 6 digits exactly divisible by 24, 15, 36.
10. A merchant has 120 litres of Servo oil, 180 litres of Castrol oil and 240 litres of local brand oil. He wants to sell the oil by filling the three kinds of oil in tins of equal capacity. What should be the greatest capacity of such a tin?
11. If $\sin \theta - \cos \theta = 0$, find the value of $\sin^4\theta + \cos^4\theta$.
12. Veer Arjun has two vessels containing 720 ml and 405 ml of milk respectively. Milk from these containers is poured into glasses of equal capacity to their brim. Find the minimum number of glasses that can be filled.
13. If the equation $(1 + m^2)x^2 + 2mcx + c^2 - a^2 = 0$ has equal roots show that $c^2 = a^2(1 + m^2)$.
14. The length and the breadth and the height of a room are 735 cm, 625 cm and 415 cm. Find the length of the largest scale measuring instrument which can measure all the three dimensions.
15. Prove that $\sqrt{3}$ is irrational and hence prove $2 + \sqrt{3}$ also irrational.

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16. If the product of zeroes of the polynomial $ax^2 - 6x - 6$ is 4, find the value of a .
17. If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is reciprocal of the other , find the value of a .
18. Find the quadratic polynomial whose zeroes are negative of the zeroes of $px^2 + qx + r$
19. If p and q are the roots of the polynomial $x^2 - 5x + k$ such that $p - q = 1$, find the value of k .
20. If p and q are the zeroes of the polynomial $x^2 - 6x + k$ then find the value of k such that $p^2 + q^2 = 40$.
21. Two pipes running together can fill a tank in $100/9$ minutes . If one pipe takes 5 minute more than the other to fill the tank separately , find the time in which each pipe would fill the tank separately .
22. *If α and β are the zeros of the quadratic polynomial $f(x) = ax^2 + bx + c$, then evaluate:*

(i) $\alpha^2 + \beta^2$	(ii) $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$	(iii) $\alpha^3 + \beta^3$	(iv) $\frac{1}{\alpha^3} + \frac{1}{\beta^3}$	(v) $\frac{\alpha^2}{\beta} + \frac{\beta^2}{\alpha}$
(vi) $\alpha^4 + \beta^4$	(vii) $\frac{\alpha^2}{\beta^2} + \frac{\beta^2}{\alpha^2}$			
23. If α and β are the zeroes of $x^2 - x - 2$, find the polynomial whose zeroes are $2\alpha + 1$ and $2\beta + 1$.
24. Find the quadratic polynomial , the sum and product of whose zeroes are $\sqrt{2}$ and $-3/2$ respectively . Also find its zeroes .
25. If α and β are the zeroes of $2x^2 + 5x + k$ satisfying the relation $\alpha^2 + \beta^2 + \alpha\beta = 21/4$ then find k .
26. Solve the equations graphically : $2x + y = 2$; $2y - x = 4$. What is the area of the triangle formed by the two lines and the line $y = 0$
27. A two digit number is seven times the sum of the digits . The number formed by reversing the digits is 18 less than the given number . Find the given number .
28. If $1 + \sin \theta / 1 - \sin \theta = 36/25$, find $\cos \theta + \sin \theta / \cos \theta - \sin \theta$.
29. A boat takes 4 hours to go 44km downstream and it can go 20 km upstream in the same time . Find the speed of the stream and that of boat in the still water.
30. Solve the following for x :

$$\frac{1}{2a + b + 2x} = \frac{1}{2a} + \frac{1}{b} + \frac{1}{2x}$$