

CAMBRIDGE LOWER SECONDARY
HOLIDAY ASSIGNMENT
GRADE – 8

Subject	Assignment
English	<p>Read the novel 'Unique' by Alison Allen Gray and answer the questions given below: <i>(any 3 tasks)</i></p> <p>Chapters 1- 4</p> <p>Task 1: Write a diary entry on behalf of Dominic about his situation. Include the following points:</p> <ul style="list-style-type: none">· The effect that his life will have if it is true that he had a brother· Whom can he trust and could this really be happening to him?· His deepest feelings and questions he wants to ask his parents <p>Chapter 5</p> <p>Task 2: Write a letter to Dominic, offering advice on what he should do now.</p> <ul style="list-style-type: none">• In your first paragraph, show that you understand his problem.• Write at least two more paragraphs outlining different approaches he could take to solve the problems.• Write a final paragraph which either explains which option you think is the best or leave it up to him to decide. <p>Chapters 14-30</p> <p>Task 5: Write a speech arguing for and against cloning and creating a life for a specific purpose.</p> <p>Chapters 30-45</p> <p>Task 6: Change the climax of the novel.</p>

ESL

1. Describe the favorite place you visited in your vacations with your family in about 200 words(In ESL NB)
2. Collect three articles on the following and paste them in your ESL notebooks
 - Bullying in schools
 - Cell phones/Technology
 - Impact of online games on student life
3. Your grandparents have gifted you a bicycle as a birthday present. Write a short diary entry expressing your happiness on receiving the gift.
4. You have recently shifted to Delhi. You need to get a house on rent. Write a message to Investor's house-a company dealing in property , regarding your requirement. Do not forget to mention the specifications of the house, locality and maximum rent to be paid. Your message should not exceed 50 words. (In ESL NB)
5. Complete the story in about 150 words
Emperor Akbar very fond of Birbal- other nobles at court extremely jealous-decide to get him banished-tell Akbar to ask difficult question- certain Birbal would not be able to answer- punishment-to be banished-Akbar asks Birbal how many stars in sky – Birbal asks for some days to answer –finally comes to court with sheep- tells Akbar he has counted stars-the number is same as number of hair on sheep-tells nobles to count if they want to verify –Akbar has hearty laugh- rewards Birbal handsomely.....(In ESL NB)
6. Read any book and write a short paragraph comprehending the story in about 350 words. Do write about the characters in the story. (In ESL NB)
7. Write five new words with their meanings in a small pocket dictionary of yours.
8. You are on a holiday, visiting your uncle in another city. But you are feeling bored there. Write a letter to your mother /father in about 120 words describing:
 - why you are feeling bored
 - how much you miss home
 - when you would like your mother/ father to take you back home

Math

READ THESE INSTRUCTIONS FIRST

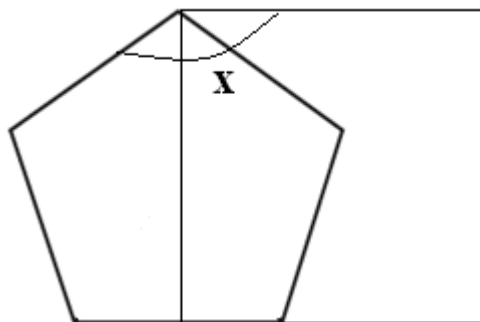
- There are two sections in this document. Answer all questions.
- Part A comprises of project work based on the guidelines given.
- Part B comprises of 22 questions which involves reinforcement of work done before summer break.
- You may submit the homework in a neat project file with an attractive cover.
- Do not use class math notebook for doing holiday homework.
- Write your name, class and section on the cover page.

Section A

1. Overlapping polygons–

(From chapter-7 ICT, investigations and Problem solving –page -66 of Check point Maths-3)

- (a) This diagram shows a regular pentagon overlapping a square. An obtuse angle x is formed at the overlap of the two shapes.
- What is the size of each of each of the internal angles of the square?
 - What is the size of each of each of the internal angles of the pentagon?
 - Calculate the size of angle x .



- (b) This diagram shows a regular hexagon overlapping a square. Calculate the size of angle x .
- (c) This diagram shows a regular hexagon overlapping a regular pentagon.
- Calculate the size of angle x .
 - Calculate the size of angle y .

2. From Exercise 5.1 page – 59 of Check point Math 3

Choose one of the following suggested questions as an area for investigation and data collection. Then:

- Plan your data collection following the steps outlined in this chapter.
- Carry out the data collection in full.
- present your findings in a clear way.
 - Are teenagers affected by advertising?
 - Do teenagers have a good diet?
 - Is Maths more important than art?
 - How do people's spending habits change as they get older?
 - How much do people recycle?

Practice the questions given below:

Section B

1. Simplify these :

- $m \times m^2 \times m^3 \div m$
- $(ab^2)^3 \times a^2b^2$
- $(2^2)^3 \div (2^3)^2$
- $a^{22} \times a^{32}$
- $5^3 \div (5^{22} \div 5)$
- $3^4 \times 3^2 \div 3$
- $(x^5)^2 \div x^{10}$
- $m^4 \div m^6$
- $(4^3)^2 \times 4 \div 4^8$

2. Remove the brackets and simplify.

(a) $2(x + 3) + 3x$

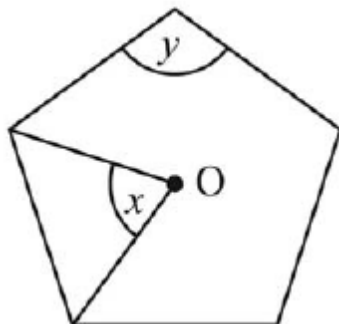
(b) $3(x + 2) - 2(x + 1)$

(c) $(x + 2)(x - 3)$

3. A spinner, made in the shape of a **regular** pentagon, is shown. O is the centre of the pentagon.

Calculate the size of:

- (i) angle x
- (ii) angle y



4. Look at these numbers.

5 6 7 8 9 10

Using only the numbers above, write down

- (a) a prime number,
- (b) a square number,
- (c) a factor of 55,
- (d) $\sqrt{36}$,
- (e) a cube number.

5. Write the correct number to go in each blank.

(a) $3 \times \underline{\quad} = -21$

(b) half of 25 = $\underline{\quad}$

- (c) $___ - 101 = 200$
 (d) $23 \div 1000 = ______$
 (e) $7 + 10 \div ______ = 9$
 (f) a quarter of 68 = $______$

6. (a) Show that $34 \times 1.2 = 40.8$.
 (b) Use part (a) to write down the value of
 (i) 3.4×1.2 ,
 (ii) 340×0.12 ,
 (iii) 17×12 .

7. Find the value of the following expressions when $r = 4$, $e = 5$ and $x = -6$.

(a) $5r + 3x + 2e$

(b) $\frac{3re}{x}$

(c) $4e^2$

(d) $2x^2 - 6r$

8. Factorize completely. (by grouping where required):

(i) $8y - 12ty$

(ii) $18x^2y^3 + 12x^2y$

(iii) $4yp + zp - 8yq - 2zq$

(iv) $b^2 + b^3$

(v) $13b^2c - 26bc^2$

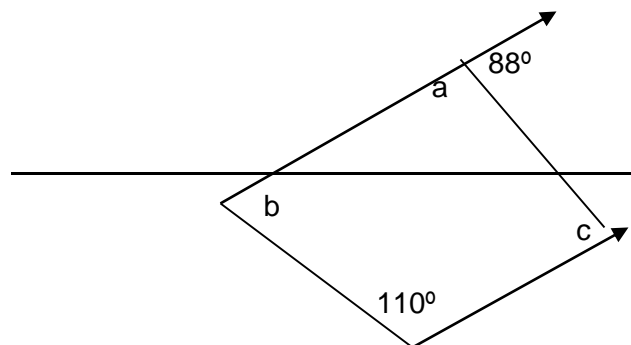
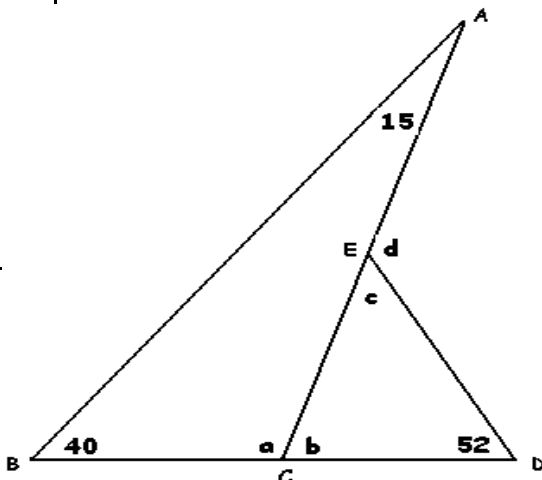
(vi) $x^2 + xz + yz + xy$

(vii) $3rt + r^2 + -6st - 2rs$

9. For a regular dodecagon:

- (i) work out the sum of the interior angles.
 (ii) find the size of each interior angle.
 (iii) calculate the size of each exterior angle.

10. Calculate the unknown angles of the polygon given.

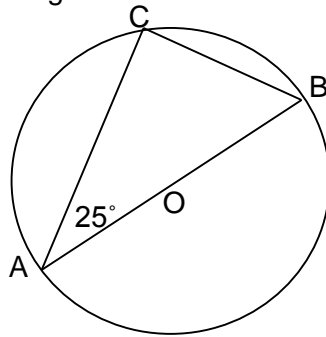


11. Simplify the following:

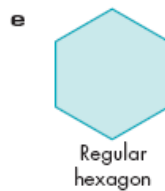
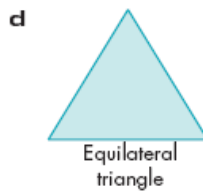
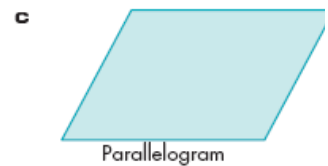
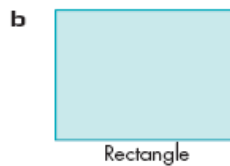
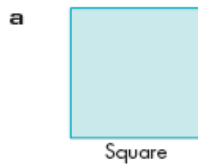
(i) $\frac{x}{y} - \frac{2x}{9y}$

(ii) $3x + \frac{x}{2}$

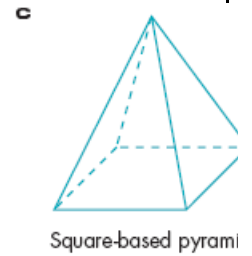
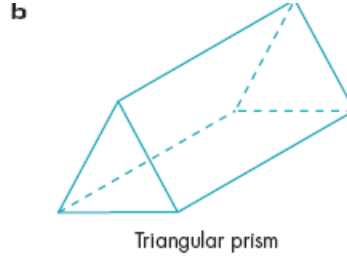
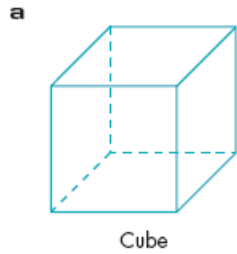
12. Calculate the size of angle B. Give reasons for your answer.



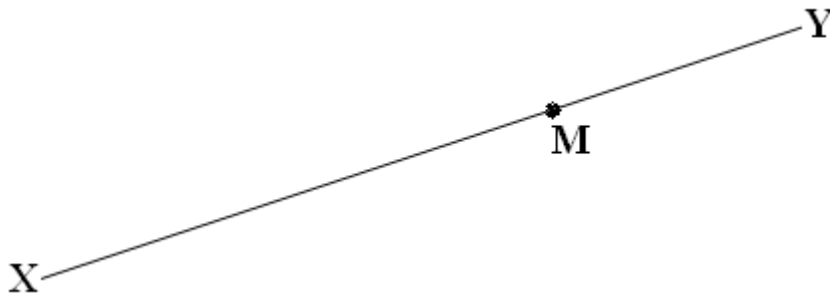
13. Write below each one the order of rotational symmetry. If it will help you, use tracing paper.



14. Find the number of planes of symmetry in each of these 3-D shapes.

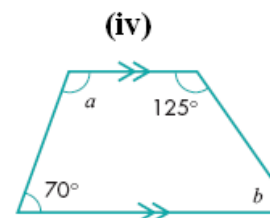
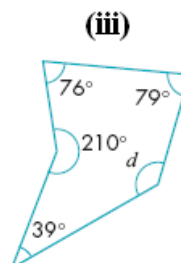
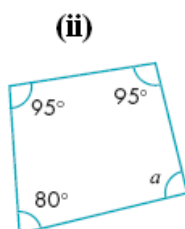
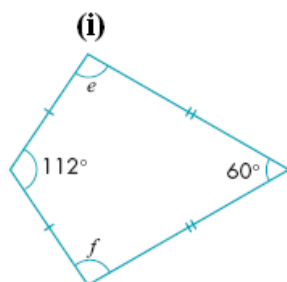


15. A piece of rope 15m long is cut into 1m20cm lengths.
How many of these lengths are there?
How long is the piece of rope left over?
16. A sunflower grows an average of 6cm per day.
How tall is it, in metres, after 31 days?
17. A pharmacist divides 8g of a painkiller into 5mg tablets. How many tablets are made?
18. (a) My plane takes off at 1648. I need to be at the airport 2 hours before the flight.
What time should I arrive at the airport?
(b) I am delayed by 48 minutes. What time do I arrive at the airport?
(c) The plane departs 16 minutes late. What time does the plane leave?
19. Given the formula $A = \frac{1}{2}(a+b)h$, find A when $a = 12\text{cm}$, $b = 14\text{cm}$ and $h = 4\text{cm}$.
Also find the value of h when $A = 60\text{cm}^2$, $a = 12\text{cm}$ and $b = 8\text{cm}$.
20. (a) construct a line which passes through the point M and is perpendicular to the line XY.



- (b) Mark a point Z on the perpendicular line so that $MZ = 4\text{cm}$.
(c) Draw the lines XZ and YZ.
(d) Calculate the area of the triangle XYZ.

21. Find the unknown angles in the following diagrams:



22. For the formula $3x - 7y = 5z$, make

(i) x the subject

(ii) y the subject

(iii) z the subject

SECTION C

Make a project/chart from one of the topics given below:

1. Any two famous Mathematicians and their contribution.
2. Maths in daily life
3. Maths in nature
4. Making Mathematical jewellery (using 2d shapes or 3d objects-self made)
5. Exploring 'Special Quadrilaterals'
6. Exploring "lines of symmetry and order of rotational symmetry"
7. Any game/puzzle/crossword created on the topics covered so far.
8. A self-composed poem on the topics covered so far.
9. Math in other subjects such as Art/Science/Social science
10. Illusions

Use your creativity and research skills to make the project.

Science

GRADE 8 PHYSICS HOLIDAY HOMEWORK -

There are many science websites and YouTube videos available on internet. Students are required to browse through them and look for the interesting science tricks/activities based on 'Density' and 'Pressure'. They have to perform any of the safe activities (Safety is paramount) or design any one of their own during holidays and present them when the school reopens. The mode of presentation can be either one of the following-

1. A 3 min. video of the step wise process with voice over to explain.
2. A powerpoint presentation with pictures and text.
3. A chart with pictures and text.

Presentation can be divided into following three parts-

1. Science trick/activity.
2. Method of the trick/activity.
3. Science behind the trick/activity

Some interesting YouTube channels are given below-

[Veritasium](https://www.youtube.com/channel/UCHnyfMqiRRG1u-2MsSQLbXA) - <https://www.youtube.com/channel/UCHnyfMqiRRG1u-2MsSQLbXA>

[Physics Girl](https://www.youtube.com/user/physicswoman) - <https://www.youtube.com/user/physicswoman>

[Smarter Every Day](https://www.youtube.com/user/destinws2) - <https://www.youtube.com/user/destinws2>

[Kurzgesagt - In a Nutshell](https://www.youtube.com/channel/UCsXVv37bltHxD1rDPwtNM8Q) -

<https://www.youtube.com/channel/UCsXVv37bltHxD1rDPwtNM8Q>

[Minutephysics](https://www.youtube.com/channel/UCUHW94eEFW7hkUMVaZz4eDg) -

<https://www.youtube.com/channel/UCUHW94eEFW7hkUMVaZz4eDg>

Some science websites are as following-

<https://www.nationalgeographic.org/activity/investigating-pressure/>

<https://www.bbc.com/bitesize/subjects/zh2xsbk>

"It's not enough to be busy... The question is: what are we busy about?" - Henry David Thoreau

Biology

An ecosystem is an interconnected zone where life exists. It includes the air, the water, the soil, the animals, the plants, and the bacteria in that zone.

Defining an ecosystem helps us see that life is interconnected and when one living thing or species is affected so are they all. We see how materials, like water, are cycled through the whole ecosystem to benefit each part of it.

	<p>Students are required to create “Pop Bottle ecosystem”. Students are required to read about the ecosystem and then refer to the following the links and create their own pop bottle ecosystem, it can be any amongst the following:</p> <ol style="list-style-type: none"> 1. Simple plant ecosystem. 2. Complex ecosystem 3. Aquatic ecosystem. <p>Students are required to click pictures of every stage of their experiment, and present the same in form of a power point presentation.</p> <p>https://www.wikihow.com/Create-an-Ecosystem-in-a-Bottle</p> <p>https://layers-of-learning.com/pop-bottle-ecosystem/</p> <p>https://www.youtube.com/watch?v=ZIGFgSXABL0</p> <p>https://www.youtube.com/watch?v=4d6W_eLisQk</p>
<p>Social Studies</p>	<p>Posters on the implication of technology on human civilization.</p> <p>Review the book ' The God of Small things' by Arundhati Roy .</p>
<p>French</p>	<p>Students to make a scrapbook with each page dedicated to a particular shop (patisserie, épicerie, etc. for 4-8 shops) Students then paste/draw items sold in that particular shop on it’s page. Label the items in French with expressions of quantity.</p>
<p>Spanish</p>	<p>Students to take a large chart and draw or paste the different household objects and label them in spanish.</p>
<p>German</p>	<ol style="list-style-type: none"> 1. Students to make a chart on Body Parts in German. <p>This activity is to be done on A3 coloured sheet. Use at least 15 body parts to prepare your chart. Also, make a beautiful diagram of human body and label it in German.</p> <ol style="list-style-type: none"> 2. Students to make a chart on Diseases in German <p>This activity is to be done on A3 coloured sheet. You can paste the coloured pictures of diseases in A3 coloured sheet. You have to mention the name of diseases also only in German.</p>

	<p>3. Make 3 slogans on the following topics. You can Choose any 3.</p> <ol style="list-style-type: none"> Environment Health Sport Culture Education Leisure <p>4. Make a Poster showing various festivals of Germany.</p>								
<p>Hindi</p>	<ol style="list-style-type: none"> आजकल चारों तरफ जंक फूड का जाल फैल चुका है। अपने छोटे भाई या बहन को पोष्टिक खाने की महत्ता समझाते हुए पत्र लिखिए। आपने अपना एक प्रोडक्ट बनाया है। उसको बेचने के लिए ग्राहकों को लुभाता एक विज्ञापन तैयार कीजिए। यदि आपको एक दिन के लिए देश का प्रधान मंत्री बना दिया जाए तो उस दिन आप क्या –क्या कार्य करेंगे। अपने किए गए कार्य को एक निबंध के रूप में लिखिए। व्याकरण के किसी एक विषय पर चार्ट या कम्प्यूटर की सहायता से (class presentation)तैयार कीजिए। ‘महाभारत’ हिन्दी पुस्तक में से एक से पाँच पाठ पढ़िए और कठिन शब्दों को अभ्यास पुस्तिका में लिखिए। 								
<p>Global Perspectives</p>	<p>Project-based learning Topic -Tradition, culture and Identity Theme-Diversity Make a movie about your culture, tradition and Identity to present in the class.</p>								
<p>ICT</p>	<p><u>Projects on HTML</u> Note- Submit the hard copy (Printouts) in a folder of the homework. <u>PROJECT-1</u> Design an HTML page that displays a table containing the details of different books in the library. For example, you have a table something like this-</p> <p style="text-align: center;"><u>LIBRARY</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">S.No.</th> <th style="width: 25%;">SUBJECT</th> <th style="width: 25%;">BOOK NAME</th> <th style="width: 25%;">AUTHOR</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	S.No.	SUBJECT	BOOK NAME	AUTHOR				
S.No.	SUBJECT	BOOK NAME	AUTHOR						

1	HISTORY	Ancient Civilization	A.C.Dutta
2	GEOGRAPHY	Comprehensive Geography	C.V.George
3	SCIENCE	A Text Book of Physics	Ashit Deb
4	SCIENCE	Organic Chemistry	Sohil Dutt

Each of these books is hyperlinked to another page that displays the Content of that book. The Content of the book may be an Ordered or Unordered list or both. Whenever a Book Name is clicked, it opens up a new browser window showing the content of that book.

PROJECT-2

Design a COMPUTER TUTORIAL in the form of a website. The main page is linked to four other pages.

MAIN PAGE.HTML

Computer Software.html

MS Access.html

Photoshop.html

Visual Basic.html

More on HTML.html

Whenever a link is clicked, it opens up a new browser window showing the information to the related topic in the form of tutorial.

PROJECT-3

Design an HTML page that displays THE STORY OF CRICKET.

Structure of the Website is given below-

CRICKET.HTML

INTRODUCTION OF CRICKET.HTML

TEST.HTML

ONE DAY.HTML

TWENTY20.HTML

WORLD CUP.HTML

VA

Pointillism Art

French artist George Pierre is noted for his innovative use of drawing media and for devising a technique of painting known as pointillism.

Material required- Full Ivory or cartridge sheet, pencil, marker, sketch pens, fiber tip pens, neon colors

Procedure- Create a beautiful drawing of your choice using a pencil very lightly and then fill the picture using the pointillism technique. The concept of pointillism is to create solid space of color by using dots of two or more colors in an area. The challenge to this project is that the entire thing must be done only using “dots”.

Few Examples-







