



Bal Bharati
PUBLIC SCHOOL

Neelbad, Bhopal

An Institution of Child Education Society (Regd.)

CLASS - X

SESSION 2023-2024

HOLIDAY HOMEWORK

SUBJECTS	HOMEWORK
ENGLISH	<p>Read the questions given below and try to work out during your summer vacation as a project work:-(Attempt all the three questions)</p> <p>*True liberty is freedom from poverty, how to deprivation and all forms of discrimination. Write your views in reference of the chapter. (Nelson Mandela)</p> <p>*'The Dust of Snow': The poem presents a moment that seems simple, but has a larger significance. Share your experience.</p> <p>*'Fire and Ice':The poet presents two reasons which will lead to the destruction of the humanity. What values do you garner from the two possible causes provided by him?</p>
HINDI	<p><u>कला एकीकरण परियोजना कार्य</u> बिहार की लोककथाएँ, शिल्प, पोशाक, त्योहार, भोजन, घूमने के स्थान, वेशभूषा, कवि तथा लेखक (प्रमुख कवि विद्यापति ठाकुर) आदि के बारे में सचित्र वर्णन कीजिए।</p> <p>https://youtu.be/cLP5OYcgujs https://youtu.be/w7fKxJrwYcQ</p>
MATHS	<p>Theorem 6.1 : If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.</p> <p>Theorem 6.2 : If a line divides any two sides of a triangle in the same ratio, then the line is parallel to the third side.</p> <p>Theorem 6.3 : If in two triangles, corresponding angles are equal, then their corresponding sides are in the same ratio (or proportion) and hence the two triangles are similar</p> <p>Theorem 6.4 : If in two triangles, sides of one triangle are proportional to (i.e., in the same ratio of) the sides of the other triangle, then their corresponding angles are equal and hence the two triangles are similar.</p>

	<p>Theorem 6.5 : If one angle of a triangle is equal to one angle of the other triangle and the sides including these angles are proportional, then the two triangles are similar.</p>
<p>SCIENCE</p>	<p>BIOLOGY Topic: Research on management practices of natural resources. Students have to prepare a comparative research report of Paired states (Bihar & MP) on the above topic under the following sub headings:</p> <ol style="list-style-type: none"> 1 Types of resources 2. Percentage of available natural resources in both the states 3. Rate of pollution of different resources 4. Sustainable management practices taken up by both the states. <p>CHEMISTRY PROJECT : Observe the Pollution level of Madhya Pradesh (Bhopal) and Bihar(Patna) . Compare it with Bhopal (Madhya Pradesh). What are the reasons for the low level of pollution in Bhopal? Show graphical representation of the data. Also paste the pictures of different types of Wastewater treatment plants used in Bihar & Bhopal (M.P).</p> <p>PHYSICS :</p> <p>Answer the followings:</p> <ol style="list-style-type: none"> 1. Draw the ray diagram in each case to show the position and nature of the image formed when the object is placed: (i) at the centre of curvature of a concave mirror (ii)between the pole P and focus F of a concave mirror (iii)in front of a convex mirror(iv) at 2F of a convex lens 2.An object 2 cm in size is placed 30 cm in front of a concave mirror of focal length 15 cm. At what distance from the mirror should a screen be placed in order to obtain a sharp image? What will be the nature and the size of the image formed? Draw a ray diagram to show the formation of the image in this case. 3.Explain why a ray of light passing through the centre of curvature of a concave mirror, gets reflected along the same path. 4.What is the nature of the image formed by a concavemirror if the magnification produced by the mirror is +3? 5.. Between which two points of a concave mirror should an object be placed to a magnification of -3? 6.List four properties of the image formed by a convexmirror. 7.List four properties of the image formed by a concavemirror, when object is placed between focus and pole of the mirror.

8. When a bright object is brought near the mirror at 10cm then its image is formed at 40cm from mirror, find focal length of mirror.
9. Using mirror formula, compute the position of an object placed in front of a concave mirror of focal length f so that its image formed is of same size of the object.
10. An object is placed at a distance of 15cm is slowly moved towards the pole of a convex mirror. What will be the size and nature of image?
11. If a man's face is 25cm in front of a concave shaving mirror producing erect image 1.5 times the size of face, find focal length of mirror.
12. A concave mirror of focal length 20cm forms an image having twice the size of an object. For the virtual position of image, find the position of image?
13. An object is moved in front of a plane mirror at distance 0.25m, find the distance between object and image?
14. An object 2cm high is placed at a distance of 16cm from a concave mirror, which produces 3cm high inverted image. What is the focal length of the mirror? Also, find the position of the image.
15. An erect image 3 times the size of the object is obtained with a concave mirror of radius of curvature 36cm. What is the position of the object?
16. A 2.5cm candle is placed 12 cm away from a convex mirror of focal length 30cm. Give the location of the image and the magnification.
17. A concave mirror produces a real image 10mm tall, of an object 2.5mm tall placed at 5cm from the mirror. Calculate focal length of the mirror and the position of the image.
18. An object is placed at a large distance in front of a convex mirror of radius of curvature 40cm. How far is the image behind the mirror?
19. An object is placed 15cm from a convex mirror of radius of curvature 90cm. Calculate position of the image and its magnification.
20. The image formed by a convex mirror of focal length 30cm is a quarter of the object. What is the distance of the object from the mirror?
21. When an object is placed at a distance of 60cm from a convex mirror, the magnification produced is $\frac{1}{2}$. Where should the object be placed to get a magnification of $\frac{1}{3}$?
22. An object is placed 18cm front of a mirror. If the image is formed at 4cm to the right of the mirror. Calculate its focal length. Is the mirror convex or concave? What is the nature of the image? What is the radius of curvature of the mirror?
23. The linear magnification of a convex mirror of focal length 15cm is $\frac{1}{3}$. What is the distance of the object from the focus of the mirror?

<p>SOCIAL STUDIES</p>	<p>Every student has to compulsorily undertake one project on</p> <p>Consumer Awareness OR Social Issues OR Sustainable Development</p> <p>Note: Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report. If required, students may go out for collecting data and use different primary and secondary resources to prepare the project.</p> <p>Submission Date: 20/06/2023</p>
<p>Information Technology (402)</p>	<p>Q1. What is a shortcut menu? What is its significance? Q2. What happens when files and folders are deleted in Windows? Is it possible to retrieve deleted object later? If so, how? Q3. What is the significance of Task bar? Q4. Why is computer maintenance necessary? Q5. What is computer virus? How is it harmful? Q6. What is antivirus? Write any 10 antivirus names, find out their logo from the Internet, take a colour printout in tiles size and paste in your notebook in front of the antivirus name.</p>