

HOLIDAY HOMEWORK 2025-26

CLASS: IX

As we embark on the joyous journey of summer vacations, it's an ideal time for our young learners to unleash their potential, explore new horizons, and indulge in creative pursuits. This break offers a wonderful opportunity for children to bond with family and friends, develop essential life skills, and nurture their overall growth.

To make the most of this break, we've curated a set of engaging and interactive assignments that cater to diverse interests and learning styles. These assignments are designed to inspire creativity, critical thinking, and self-directed learning. While we encourage children to take ownership of their work, parental guidance and support are welcome whenever needed. Let's collaborate to make this summer vacation a memorable and enriching experience for our children, empowering them to return to school refreshed, revitalized, and ready to thrive.

Happy Holidays!!!

Happy Learning!!!

ENGLISH

1. Andaman and Nicobar Islands, nestled in the Bay of Bengal are a haven of breathtaking beauty and diversity. The tropical paradise beckons travellers' seeking relaxation, adventure and a glimpse into India's rich cultural heritage.

ART-INTEGRATED PROJECT: Make a suitable **advertisement** enticing tourists to try out **adventure sports in Andaman and Nicobar Islands** that your company offers. Take ideas and vocabulary from Unit-2 of your Main Course Book. The advert should be made on a light-coloured A-4 sized sheet, and should have suitable language content in the form of details, not just artistic elements.

2. Compose a comprehensive **biography** of a notable author hailing from Lakshadweep or Andaman and Nicobar Islands who has made significant contributions to English literature. So, create a **visually appealing A-4 sized layout** that features a notable author's image, biography and concise descriptions of their renowned works.

3. Original compositions on the theme- **INSPIRING MOMENTS**, for the school magazine. They can be – anecdotes, poems, quotes, etc. Please ensure they are written neatly on A-4 sized sheet with your credentials at the end. Selected pieces will be published in the next edition of the school magazine.

MATHS

CHAPTER-1 (NUMBER SYSTEM)

Q1) Find the value of

(i) $(256)^{0.16} \times (256)^{0.09}$

(ii) $(49)^{1/3} \times (7)^{1/3}$

(iii) $2\sqrt{50} + 3\sqrt{32} + 4\sqrt{18}$

Q2) Show that $(2 + \sqrt{3})(2 - \sqrt{3})(5 + \sqrt{2})(5 - \sqrt{2})$

Q3) Find three rational numbers between $\frac{5}{7}$ and $\frac{9}{11}$.

Q4) Express the following in the $\frac{p}{q}$ form, where p and q are integers and $q \neq 0$.

(i) 0.2353535.....

(ii) 19.9999.....

(iii) 0.777777.....

Q5) If $(4)^{2x-1} - (16)^{x-1} = 384$, then find the value of x.

Q6) Insert 10 Rational Numbers between $\frac{5}{13}$ and $\frac{6}{13}$.

Q7) Write the rationalizing factor of $\frac{1}{\sqrt{7}-\sqrt{4}}$.

Q8) Rationalise the denominator of :

(i) $\frac{5}{\sqrt{3}-\sqrt{5}}$

(ii) $\frac{4\sqrt{3}+5\sqrt{2}}{4\sqrt{3}+3\sqrt{2}}$

(iii) $\frac{\sqrt{2}}{\sqrt{2}+\sqrt{3}}$

Q9) Write three numbers whose decimal expansions are non-terminating and non-recurring.

Q10) If $a = 5 + 2\sqrt{6}$ then find a^2 and also find $1/a$.

FILL IN THE BLANKS:(Questions 11-14)

Q11) $(49/4)^{1/2} \times (81/16)^{-1/4} =$ _____

Q12) If $(81)^{5/x} = 243$, then $x =$ _____

Q13) The value of $(2 + \sqrt{3})(2 - \sqrt{3})$ is _____

Q14) The decimal representation of the rational number $\frac{8}{27}$ is _____

Q15) Find the values of $1/x$, if

(i) $\frac{5+\sqrt{11}}{3-2\sqrt{11}} = x$

(ii) $\frac{3}{\sqrt{3}+1} + \frac{5}{\sqrt{3}-1} = x$

CHAPTER-2 (POLYNOMIALS)

Q1) How many zeros does cubic polynomial has?

Q2) Write the coefficient of x^2 in the expansion of $(x-2)^3$.

Q3) Find the value of k, if $y + 3$ is a factor of $3y^2 + ky + 6$.

Q4) If $f(z) = z^2 - 3\sqrt{2}z - 1$, then find $f(3\sqrt{2})$.

Q5) Find $513^2 - 512^2$ using suitable Identity.

Q6) If $x + \frac{1}{x} = 4$, then find the value of $x^2 + 1/x^2$.

Q7) Find $x + \frac{1}{x}$, If $x^2 + 1/x^2 = 62$.

Q8) Expand using suitable Identity:

(i) $(-2x + 5y - 3z)^2$

(ii) $(-p + 4q - 3r)^2$

(iii) $(2x + 5y)^3$

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

Q9) If $p(x) = x^2 - 4x + 3$, evaluate: $p(2) - p(-1) + p(1/2)$

Q10) If $(x+1)$ is a factor of $ax^3 + ax^2 - 2x + 4a - 9$, find the value of a .

Q11) Find the remainder when $f(x) = 4x^3 - 12x^2 + 14x - 3$ is divided by $g(x) = (2x-1)$ using remainder theorem.

Q12) For what value of m , is $x^3 - 2mx^2 + 16$ divisible by $x-2$?

Q13) Factorise the following polynomials:

(i) $48x^3 - 36x^2$

(ii) $5x^2 - 15xy$

(iii) $4x^2 - 9y^2 - 2x - 3y$

(iv) $9x^2 - 30xy + 25y^2$

(v) $X^2 + 4y^2 + 9z^2 - 4xy - 12yz + 6xz$

(vi) $X^2 + y^2 + 9z^2 + 2xy + 6yz + 6xz$

Q14) Factorise the following by splitting the middle terms:

(i) $2x^2 - 7x - 15$

(ii) $X^2 - 23x + 120$

(iii) $\sqrt{3}x^2 + 11x + 6\sqrt{3}$

Q15) Using suitable Identities, find the value of:

(i) 101^2

(ii) 98^2

(iii) $(0.97)^2$

(iv) 190×190

ART INTEGRATED PROJECT

The major tribal communities that dwell in Lakshadweep comprise Aminidivi, Koyas, Malmis and Melacheris.

Analyze the demography i.e. the population growth rate of Lakshadweep over the past few decades and predict its future population growth.

Prepare a power point presentation with 10-12 slides of the research work done.

SCIENCE

ART INTEGRATED PROJECT

Prepare ALL project as per the topic allotted to the section

Class 9A- Physics

Class 9B- Biology

Class 9C- Chemistry

Class 9D- Biology

PHYSICS

CLASS- IX A

1. Make an investigatory project on any one of the following:

a) Renewable energy: design a model or presentation on harnessing solar or wind energy in Andaman and Nicobar Islands

OR

b) Tidal energy: Explore the potential of tidal energy in the island of Andaman and Nicobar and create a project on its application.

2. Prepare a working 3D model showing Newton's 2nd law of motion

OR

Newton's Law of Motion is an inherent property of our everyday life. Starting from the beginning of the day till the end, Newton's Law finds their application in several activities we do. Make a PPT, giving examples and showing applicability of these laws in everyday life situations. Think in reference to walking, playing, driving etc. Also paste preferably real-life relevant pictures of your surroundings.

Note: Holiday homework should be done in the project file and hard copy of the homework should be submitted when School reopens.

BIOLOGY-

CLASSES-IXB & IXD

Prepare any one of the following:

1. Island Ecosystem Model - Create a 3D model showcasing the unique ecosystems found in the Andaman and Nicobar Islands, such as coral reefs, mangroves, or tropical forests.

OR

2. Endemic Species Illustrations - Draw or paint illustrations of endemic species found only in the Andaman and Nicobar and Lakshadweep Islands, such as the Andaman spiny terrapin or the Nicobar megapode.

OR

3. Island Map Leaflet - Create an illustrated map leaflet of Andaman and Nicobar or Lakshadweep Island highlighting their climate and biodiversity.

CHEMISTRY

CLASS-IXC

Investigatory Project

Here are 2 AIL chemistry-related topics connected to the Andaman and Nicobar Islands.

Select any one of Marine Chemistry

1. Coral reef chemistry: Investigate the chemical processes that occur in coral reefs, including calcification, photosynthesis, and nutrient cycling.

OR

2. Ocean acidification: Explore the impact of ocean acidification on coral reefs and marine life, including the effects on calcium carbonate formation and shell dissolution.

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*ASSIGNMENTS

Students to note that assignments given below for physics, chemistry, and biology to be done in subject registers

<https://in.docworkspace.com/d/sIHby8uQnoKLewAY?sa=601.1074>

SOCIAL SCIENCE

PROJECT WORK:

PROJECT WORK	10 PERIODS
<p>Every student must undertake one project on Disaster Management</p> <p>Objectives: The main objectives of giving project work on Disaster Management to the students are to:</p> <ul style="list-style-type: none">❖ To create awareness in them about different disasters, their consequences and management❖ To prepare them in advance to face such situations❖ To ensure their participation in disaster risk reduction plans❖ To enable them to create awareness and preparedness among the community.❖ The project work helps in enhancing the Life Skills of the students.❖ Various forms of art must be integrated in the project work.	<p>The students will develop the following competencies:</p> <ul style="list-style-type: none">❖ Collaboration❖ Use analytical skills.❖ Evaluate the situations during disasters❖ Synthesize the information.❖ Find creative solutions.❖ Strategies the order of solutions.❖ Use right communication skills.

Guidelines:

To realize the expected objectives, it would be required of the principals / teachers to muster support from various local authorities and organizations like the Disaster Management Authorities, Relief, Rehabilitation and the Disaster Management Departments of the States, Office of the District Magistrate/ Deputy Commissioners, Fire Service, Police, Civil Defence etc. in the area where the schools are located.

The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.

Prepare a 7-10 page (A4size) detailed report on the historical background and the geographic location of the Andaman and Nicobar islands. Highlight land use pattern and composite culture.

हिन्दी

- 1- लक्षद्वीप के कोई 5 प्रसिद्ध पर्यटन स्थलों पर सचित्र जानकारी एक परियोजना के रूप में तैयार करें। (A-4 आकार के पृष्ठों पर)
 - 2- ग्रीष्मावकाश में प्रतिदिन हिन्दी समाचार -पत्र और पत्रिकाएँ पढ़िए ।
 - 3- रहीम के 2 दोहे कंठस्थ कीजिए और भावार्थ व शिक्षा सहित कक्षा में सुनाइए ।
 - 4- दिए गए सभी अभ्यास -पत्र पूर्ण कीजिए ।
- * नोट -उपर्युक्त कार्य को आंतरिक मूल्यांकन के अन्तर्गत जाँचा जाएगा ।

संस्कृत

1. अस्माकम् पर्यावरणम्/ स्वच्छ भारत - श्रेष्ठ भारत विषये सचित्र परियोजना कार्यम् रचयन्तु।
2. मम आदर्शः / मम विद्यालयम्/ मम अभिलाषा
कोऽपि विषये संस्कृत अनुच्छेदम् लिख्यन्ताम्।
3. कक्षायाम् पठित सर्वेषाम् विषयानाम् पुनरावृत्तिम् कुर्यात्।
4. लक्षद्वीपस्य प्रसिद्ध टापूनाम् विषये सचित्र परियोजना कार्यम् रचयन्तु।

INFORMATION TECHNOLOGY

Create a PPT (4-6 slides) on water conservation in Andaman and Nicobar islands using impress

PHYSICAL ACTIVITY TRAINER

Details of the PAT Project :-

- 1) Theme :- Andaman and Nicobar
- A) Sports Introduction of Andaman and Nicobar
- B) Sports History of Andaman and Nicobar
- C) Sports infrastructure of Andaman and Nicobar
- D) Traditional Sports of Andaman and Nicobar
- E) Regional Sports of Andaman and Nicobar
- F) Water sports of Andaman and Nicobar
- G) Any 4 Famous Sportspersons from Andaman and Nicobar

Project should be of 20 Pages atleast.