



SUMMER ASSIGNMENT (2022-23)

CLASS – IX

SUBJECT	HOMEWORK
ENGLISH	<p>1. Maintain a journal and pen down day-to-day life. Minimum 10 entries are compulsory. (Use a diary/notebook for this activity)</p> <p>2. Given below is the list of Literary Devices. Make a colourful chart and define anyone of the following devices with minimum two examples on a separate A4 size sheet:</p> <ul style="list-style-type: none">• Metaphor• Simile• Personification• Oxymoron• Onomatopoeia• Paradox• Repetition• Hyperbole <p>3. Revise the work done in Literature & Language.</p>
MATHEMATICS	<p>1. Convert $3.\overline{337}$ in the form of $\frac{p}{q}$.</p> <p>2. Convert $2.3\overline{47}$ in the form of $\frac{p}{q}$.</p> <p>3. Convert $6.03\overline{5}$ in the form of $\frac{p}{q}$.</p> <p>4. Convert $0.3\overline{732}$ in the form of $\frac{p}{q}$.</p> <p>5. Simplify :</p> <p>i) $\frac{4}{2 + \sqrt{3}}$</p> <p>ii) $\frac{3 - \sqrt{5}}{4 - \sqrt{7}}$</p> <p>iii) $\frac{6 + 2\sqrt{11}}{5 - 3\sqrt{11}}$</p> <p>iv) $\frac{4 - \sqrt{5}}{2 - \sqrt{7}} + \frac{7 + \sqrt{11}}{5 - \sqrt{11}}$</p> <p>v) $\frac{6 + 2\sqrt{12}}{5 - 3\sqrt{32}} - \frac{3 + 2\sqrt{7}}{7 - 3\sqrt{8}}$</p> <p>vi) $\frac{7\sqrt{3}}{\sqrt{10} \pm \sqrt{3}} + \frac{3\sqrt{2}}{\sqrt{6} \mp \sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6} \pm \sqrt{2}}$</p> <p>vii) Evaluate: $\frac{2^{40} + 2^{39} + 2^{38}}{2^{41} + 2^{40} - 2^{39}}$</p>

viii) Find the value of x if $\left(\frac{6}{5}\right)^x \left(\frac{5}{6}\right)^{2x} = \frac{125}{216}$

POLYNOMIALS

1. Show that $x=1$ is a root of the $f(x)=2x^3-3x^2+7x-6$.
2. If $x=4/3$ is the root of $f(x)=6x^3-11x^2+kx-20$, find the value of 'k'.
3. If the polynomials $2x^3+ax^2+3x-5$ and x^3+x^2-4x+a leave the same remainder when divided by $x-2$, find the value of 'a'.
4. What must be added to $x^4+2x^3-2x^2+x-1$ so that the result is exactly divisible by x^2+2x-3 ?
5. What must be added from $4x^4-2x^3-6x^2+x-5$ so that the result is exactly divisible by $2x^2+x-1$?
6. Using factor theorem, factorize the polynomial $2x^3-3x^2-17x+30$.
7. Using factor theorem, factorize the polynomial $x^4+2x^3-13x^2-14x+24$.

8. Factorize the following by suitable identity :

- a. $9x^2+6xy+y^2$
- b. $4y^2-4y+1$
- c. x^2+2x+1
- d. $x^2 - \frac{y^2}{100}$
- e. x^6-y^6
- f. $27-125a^3-135a+225a^2$
- g. $64a^3-27b^3-144a^2b+108ab^2$
- h. $27y^3+125z^3$
- i. $64m^3-343n^3$

Make ppt on congruent triangles (project work)

SCIENCE

Fossil fuel is a term used to describe a group of energy sources that were formed when ancient plants and organisms were subject to intense heat and pressure over millions of years.

During summer break you need to explore little more about them. Below are some tasks to be done:

Make a project file

- to clearly explain the formation of- 3 Fossil Fuels- Coal, Oil and Natural gas
- The extraction of Fossil Fuels is not an easy process. Explain the extraction of anyone Fossil Fuel
- Fossil Fuels have a lot of Impact on the environment: Write down the impact of various fossil fuels

People are switching from fossil fuel energy to renewable energy sources as there is a worry that fossil fuels will deplete in the near future.

Make a list of renewable energy sources and find the solution – Which renewable energy is the best source to provide electricity in India

	<p>According to you.</p> <p>You can visit the following links to understand and know more about fossil fuels.</p> <p>https://www.studentenergy.org/topics/fossil-fuels</p> <p>http://www.kidcyber.com.au/fossil-fuels/</p> <p>http://www.altenergy.org/renewables/renewables.html</p>
SOCIAL SCIENCE	<ol style="list-style-type: none"> 1. Visit to a village or a farm in the holidays, Prepare a questionnaire (10-15 questions) as discussed in the class and interview with the farmers. (A4 sheets) 2. Art integrated Activity Andhra Pradesh and Punjab <p>ON A SCRAP FILE</p> <ol style="list-style-type: none"> i) Prepare a beautiful Cover Page consist of Title Name Class Roll no. Submitted By and Submitted to ii) Acknowledgement iii) Locate and label Andhra Pradesh and Punjab on the Map <ul style="list-style-type: none"> • Write the capital of Andhra Pradesh • Rivers flowing through the state • Climate type • Name of the species of plants and animals found there • National parks and wildlife sanctuaries in Andhra Pradesh • Population of Andhra Pradesh <p>Also paste pictures wherever required</p> <ol style="list-style-type: none"> 3. On an A3 sheet prepare your own newspaper giving a suitable name Adding current news related to politics (legislature, executive and judiciary), environment concerns, sports, international news, games and also add caricatures. <p>YOU CAN TAKE HELP OF THESE LINKS FOR THE ACTIVITY.</p> <p>https://youtu.be/BgEmBY3QWlg</p> <p>https://you.be/sQ36x58ZC0</p>
HINDI	<ol style="list-style-type: none"> 1. दिए गए विषयों में से किसी एक विषय पर प्रोजेक्ट फाइल बनाने (कल एकीकरण कथि) विलोमशब्द, पर्यायशब्द, उपसर्गप्रत्यय 2. एक भक्ति श्रेष्ठ भक्ति के अंतर्गत गतिविधि- पंजाब और आंध्र प्रदेश की सभ्यता संस्कृति, राष्ट्रीय प्रतीक (कोई 3) समझ सुधार (कोई 3) के चित्र चिपक कर उसकी महत्ता दिखाती हुई कुछ पंक्तियाँ लिखें तथा तिलगुणों में उनका अनुवाद भी करें।
PUNJABI	<ol style="list-style-type: none"> 1. ਇਕਾਂਗੀ ਸਿਰਜਣਾ ਦੇ ਅਧਾਰ ਤੇ ਪਾਤਰਾਂ ਦਾ ਸੰਖੇਪ ਬਿਊਰਾ ਦਿੰਦੇ ਹੋਏ

	<p>ਤਸਵੀਰਾਂ ਚਿਪਕਾ ਕੇ ਸਕਰੈਪ ਡਲਿਟ ਤਿਆਰ ਕਰੋ।(For Girls)/ਇਕਾਂਗੀ ਮੋਨਧਾਰੀ ਦੇ ਆਧਾਰ ਤੇ ਪਾਤਰਾਂ ਦਾ ਸੰਖੇਪ ਬਿਉਰਾ ਦਿੰਦੇ ਹੋਏ ਤਸਵੀਰਾਂ ਚਿਪਕਾ ਕੇ ਸਕ੍ਰੈਪ ਫਾਇਲ ਤਿਆਰ ਕਰੋ।(For Boys)(ਕਲਾ ਏਕੀਕਰਨ)</p> <p>2. ਪੰਜਾਬੀ ਸੱਭਿਆਚਾਰ ਨਾਲ ਸੰਬੰਧਿਤ ਕੁਝ ਚੀਜ਼ਾਂ ਨੂੰ ਮਾਡਲ ਰੂਪ ਵਿੱਚ ਤਿਆਰ ਕਰੋ।(ਕਲਾ ਏਕੀਕਰਨ)</p> <p>3. ਨਵੀਂ/ ਪੁਰਾਣੀ ਤਹਿਜ਼ੀਬ ਬੀ ਵੱਖਰਤਾ ਨੂੰ ਦਰਸਾਉਂਦੇ ਹੋਏ ਚਾਰਟ ਬਣਾਉ।(ਕਲਾ ਏਕੀਕਰਨ)</p>
ART & CRAFT	<ol style="list-style-type: none"> 1. Make a poster on : Water conservation or Pollution 2. Nirmal Painting *Make posters on half charts.
I.T COMPUTERS	<p>Use half chart and make a Poster on :-</p> <p>E-Safety /Cyber Safety/Internet Safety (Roll No.1-16)</p> <p>Digital India (Roll No. 17 onwards)</p>