

# S.D.M.P HR SECONDARY SCHOOL KARWANDA (BHALWAL) JAMMU

CLASS 10<sup>TH</sup> HOLIDAY  
HOMEWORK



## Hurray!

Sand And Sun, Summer  
Has Begun!



## GENERAL INSTRUCTIONS:

- Home work should be done in neat and clean handwriting on a **new 3 in 1 notebook (for classes 1<sup>st</sup> and 2<sup>nd</sup>) AND FOR (3<sup>rd</sup> to 10<sup>th</sup>) on single new register.**
- All students must complete the assigned holiday homework sincerely and neatly.
- Submit the holiday homework on time after the summer vacations.
- Incomplete work, untidy work, or non-submission of homework will result in deduction of marks. **(5 marks from each subject)**
- No excuses will be entertained for incomplete or missing work.
- Charts should be neat, colourful, properly labelled, and prepared by the students themselves.
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## **SUBJECT: SCIENCE**

### **LIFE PROCESS**

- Q1. Give difference between autotrophic nutrition and heterotrophic nutrition.
- Q2. Describe human alimentary canal. Draw a labelled diagram of human alimentary canal.
- Q3. Discuss the role of digestive enzymes in the digestion of food.
- Q4. What are the different ways in which glucose is oxidized to provide energy in various organisms?
- Q5. What are the differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of respiration.
- Q6. Describe respiratory system in humans with the help of diagram.
- Q7. Define breathing. State the differences between respiration and breathing.
- Q8. How are water and mineral transported in plants?
- Q9. Describe the structure and functioning of nephron.
- Q10. Draw human heart and explain its working mechanism.
- Q11. How are lungs designed in humans to maximize the area for exchange of gases?
- Q12. How is oxygen and carbon dioxide transported in human beings.
- Q13. How are fats digested in our body? Where this process does takes place?
- Q14. Explain double circulation in human beings.
- Q15. What is the role of following in the digestion?
- a) saliva              b) acid
- Q16. What factors affect the process of photo synthesis? Explain.
- Q17. Explain the process of photosynthesis.
- Q18. Define excretion. Explain the excretory system with the help of diagram.
- Q19. Explain the components of transport system in humans.
- Q20. How is small intestine designed to absorb the digested food?
- Q21. How is alveoli designed to maximize the exchange of gases?
- Q22. What are the differences between the transport of materials in xylem and phloem.

## CHEMICAL REACTIONS AND EQUATIONS

Q1. What are the types of decomposition reactions? Give examples of each type.

Q2. Explain the oxidation and reduction reactions in terms of gain or loss of oxygen with two examples of each.

Q3. Define Exothermic and Endothermic reactions with examples.

Q4. Why is respiration considered as exothermic reaction?

Q5. Why is Photosynthesis considered as endothermic reaction?

Q6. What is corrosion? How is it prevented?

Q7. Why does the colour of copper sulphate solution change, when an iron nail is dipped in it?

Q8. Why should a magnesium ribbon be cleaned before it is burnt in air?

Q9. What is a balanced chemical equation? Why should chemical equations be balanced?

Q10. Write a balanced chemical equation with state symbols for the following reactions.

- (a) Hydrogen gas combines with nitrogen to form ammonia.
- (b) Hydrogen sulphide gas burns in air to give water and sulphur dioxide.
- (c) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium sulphate.
- (d) Potassium metal reacts with water to give potassium hydroxide and hydrogen gas.
- (e) Solutions of barium chloride and sodium sulphate in water react to give insoluble barium sulphate and the solution of sodium chloride.
- (f) Sodium hydroxide solution (in water) reacts with hydrochloric acid solution (in water) to produce sodium chloride solution and water.

Q11. Why are decomposition reactions called the opposite of combination reactions? Write equations for these reactions.

Q12. Write the balanced chemical equations for the following reactions.

- (a) Calcium hydroxide + Carbon dioxide  $\rightarrow$  Calcium carbonate + Water
- (b) Zinc + Silver nitrate  $\rightarrow$  Zinc nitrate + Silver
- (c) Aluminium + Copper chloride  $\rightarrow$  Aluminium chloride + Copper
- (d) Barium chloride + Potassium sulphate  $\rightarrow$  Barium sulphate + Potassium chloride
- (e) Potassium bromide (aq) + Barium iodide (aq)  $\rightarrow$  Potassium iodide (aq) + Barium bromide(s)
- (f) Zinc carbonate (s)  $\rightarrow$  Zinc oxide (s) + Carbon dioxide (g)
- (g) Hydrogen (g) + Chlorine (g)  $\rightarrow$  Hydrogen chloride (g)
- (h) Magnesium (s) + Hydrochloric acid (aq)  $\rightarrow$  Magnesium chloride (aq) + Hydrogen (g)

Q13. What is the difference between displacement and double displacement reactions? Write equations for these reactions.

Q14. What do you mean by a precipitation reaction? Explain by giving examples.

Q15. What are the characteristics of a chemical reaction?

Q16. Oil and fat containing food items are flushed with nitrogen. Why?

Q17. What is Rancidity? How it can be prevented?

# LIGHT

Q1. Define reflection. Give its types and explain the laws of reflection with the help of suitable diagram.

Q2. Give uses of concave and convex mirrors.

Q3. Image formations for concave and convex mirrors.

Q4. What are New Cartesian sign conventions used for reflection in spherical mirror? What is the mirror formula?

Q5. Explain why a concave mirror is used by ENT specialists.

Q6. What is linear magnification? What is the magnification in case of a plane mirror?

Q7. A ray of light falling normal to the mirror returns along the same path. Why?

Q8. What is refractive index and relative refractive index?

Q9. What is lens formula? Give its sign conventions and assumptions.

Q10. What is power of lens? What is its SI unit? Define combination of lens.

Q11. Define refraction of light. State and explain laws of refraction with the help of suitable diagram.

Q12. What is Lens? Give difference between concave and convex lens.

Q13. Explain lateral displacement.

Q14. Give difference between real image and virtual image.

Q15. Define the following terms:

Q16. Principal focus, Focal length, Center of curvature, Principal axis, Radius of curvature, Aperture.

Q17. Numericals based on mirror formula and linear magnification.

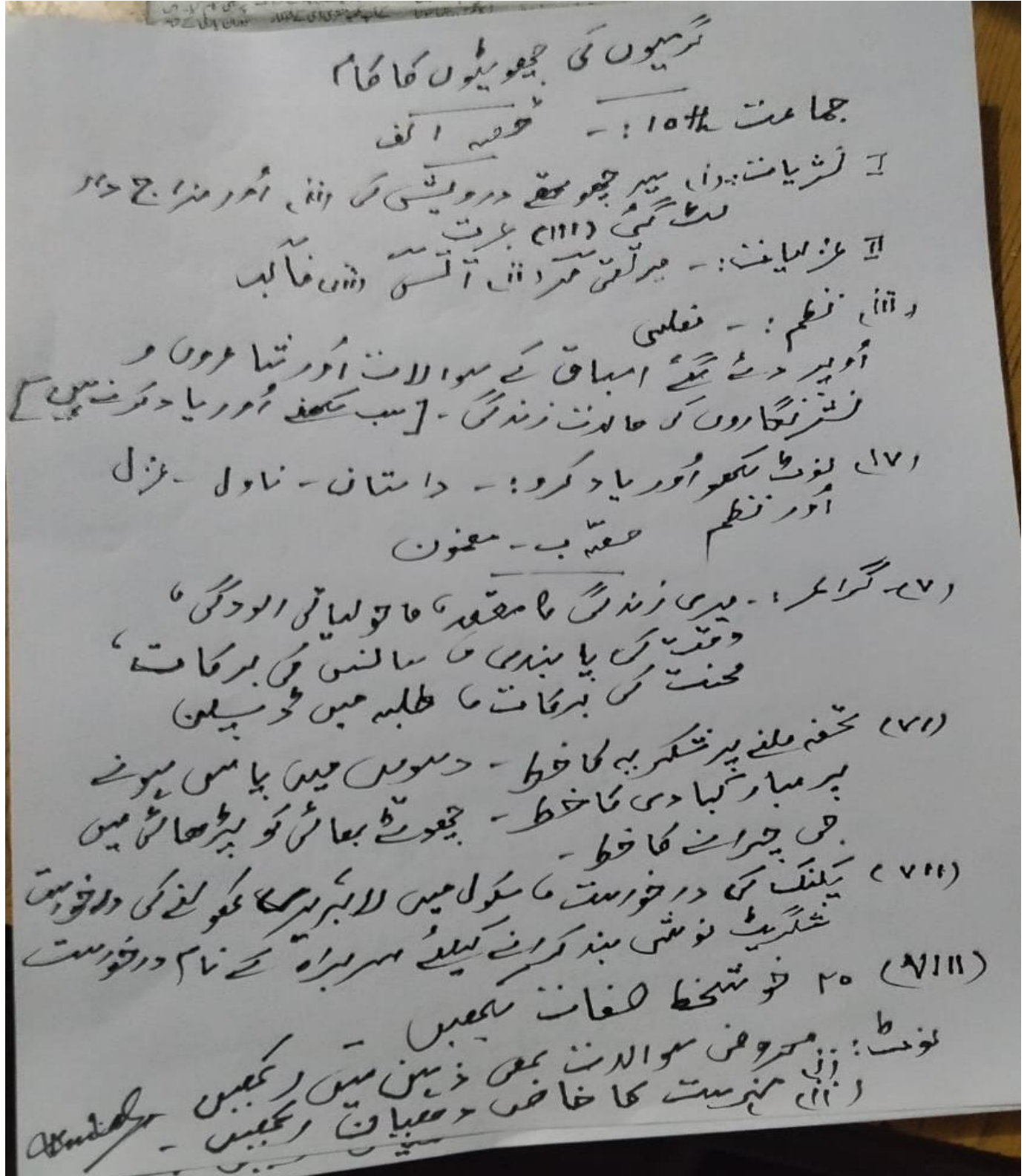
**Students are also hereby informed to write all the textual questions of the chapter "Reproduction" in their Biology fair notebook as holiday homework. The PDF of the chapter will be shared in the class group shortly.**

## SUBJECT: SOCIAL SCIENCE

Prepare the below given chapters:

1. Nationalism in Europe (History)
  2. Nationalism in India (History)
  3. Resources and Development (Geography)
- (Internal facts. textual questions. bookwork etc.)

## SUBJECT: URDU



## **SUBJECT: ENGLISH**

1. Read every day a page of English book to improve your reading.
  2. Learn and write the question answers of the chapters done in the class.
- \*Grammar\* - Revise all the topics done till date.

## **SUBJECT: HINDI**

पाठ एक - साखियाँ

पाठ दो - दोहे

पाठ तीन - जम्मू कश्मीर में हिंदी

पाठ चार - हमारा प्यारा भारतवर्ष

पाठ नौ - सपनों के से दिन

हिंदी साहित्य का इतिहास अलग कॉपी पर लिखें तथा याद करें।

\*निबंध लेखन\*

मेरा प्यारा मेरा प्रिय त्योहार, पर्यावरण संरक्षण, मोबाइल फोन के लाभ तथा हानियाँ, स्वच्छ भारत अभियान।

\*पत्र लेखन\*

1. अपने मित्र को छुट्टियों में घूमने के लिए आमंत्रण पत्र। 2. प्रधानाचार्य को पुस्तकालय में नई पुस्तकें मंगवाने हेतु आवेदन पत्र।

\*व्याकरण\*

तीस मुहावरे, तीस पर्यायवाची शब्द, तीस विलोम शब्द, तीस अनेक शब्दों के लिए एक शब्द।

\*निर्देश\*

कार्य साफ-सुथरी लिखावट में करें तथा याद भी करें।