

Class 7 Science Worksheet: Heat Transfer in Nature

Worksheet details

Section A: Short answer questions (2 marks each)

- A. What is conduction? Give one example from daily life.
- B. Differentiate between a conductor and an insulator of heat. Give one example of each.
- C. How does heat from the Sun reach the Earth? Why does this mode not need any medium?
- D. Cooking pans are made of metal, but their handles are made of wood or plastic. Why?
- E. Why do we prefer to wear light-coloured clothes in summer?
- F. What is a sea breeze? At what time of the day does it blow?
- G. The heating element of an electric water heater (immersion rod) is placed near the bottom of the bucket. Give a reason.

Section B: Short answer questions (3 marks each)

8. Describe an activity to show that heat travels through a metal rod by conduction. Mention what you observe and what it shows.
9. Water in a beaker is heated from below with a few crystals of potassium permanganate at the bottom. Draw a labelled diagram of the colour movement and explain it using convection currents.
10. Explain how a land breeze is formed at night. Why does its direction differ from that of a sea breeze?

Section C: Competency-based (CCT) questions

Case study 1 (4 marks): A day at the beach

On a May afternoon, Arjun's class visited Marina Beach in Chennai. The sand was too hot to walk on barefoot, yet the sea water felt cool. A pleasant breeze blew from the sea towards the shore. Late at night, the watchman at the beach told them the breeze blows the other way after midnight.

- 11, (a) Why was the sand much hotter than the sea water in the afternoon? (1) (b) Name the breeze blowing in the afternoon and state its direction. (1) (c) Name the breeze at night. Explain how the reversal of direction happens. (2)

Case study 2 (4 marks): In the kitchen

Priya stirred hot dal with a steel ladle. After a few minutes, the handle became too hot to hold, but her wooden spoon stayed cool. She also noticed steam rising above the pot and felt warmth on her face when she stood near the flame, without touching anything.

- 12, (a) Name the mode by which heat reached the handle of the steel ladle. (1)
- (b) Why did the wooden spoon remain cool? (1)
- (c) Name the mode by which Priya felt warmth on her face. Why can it not be conduction or convection? (1)

(d) Suggest one safe way to stir hot food with a steel ladle. (1)

.....
.....

``Data-based question (4 marks)

13, Rods of equal length and thickness, made of different materials, were heated at one end. A drop of wax was fixed at the other end of each rod. The time taken for the wax to melt is given below.

Rod	Material	Time for wax to melt
P	Copper	25 seconds
Q	Aluminium	30 seconds
R	Iron	55 seconds
S	Wood	Did not melt in 10 minutes

(a) Which rod is the best conductor of heat? (1)

(b) Which rod is an insulator? (1)

(c) Arrange the metals in decreasing order of their ability to conduct heat. (1)

(d) Which material would you choose for the base of a cooking pan and which for its handle? Give a reason. (1)



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PM SHRI KENDRIYA VIDYALAYA NO. 1, ROORKEE

AUTUMN BREAK ASSIGNMENT

CLASS VII | ENGLISH | SESSION 2026 - 27

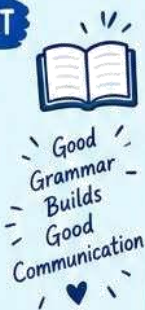


1 SUBJECT - VERB AGREEMENT

Do the following questions. Choose the correct option (A, B, C or D).

- Neither the boy nor his friends _____ ready for the competition.
(A) are (B) is (C) am (D) be
- The list of books _____ on the table.
(A) is (B) are (C) were (D) have
- Each of the students _____ given a prize.
(A) are (B) is (C) was (D) were

(You can also add 5 more easy questions from your grammar book.)



2 NOTICE WRITING

Write a notice in about 50 words on any ONE topic given below:

- Annual Sports Day
- Cleanliness Drive in School
- Inter-House Quiz Competition
- Lost and Found (Mobile Phone)



Include the following in your notice:

name of the issuing authority, date, heading, content and signature.



3 LETTER WRITING

Write any ONE letter in 120-150 words:

- To your friend describing your favourite season and why you like it.
- To the Editor of a newspaper, expressing your views on "Save Water, Save Life".
- To the Principal of your school requesting for a week's leave due to a family function.

Follow the correct format and use suitable language.

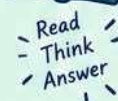


4 NCERT ENGLISH (POORVI)

Read and answer the questions from your English textbook (Poorvi) up to the chapter "North East West South".

Answer the following questions (any 5):

- What is the main theme of the chapter "North East West South"?
- How do the people of the four directions describe their land and culture?
- What does the chapter teach us about unity in diversity?
- Which part of the chapter did you like the most? Why?
- What values can we learn from this chapter in our daily life?



5 MDP - WATER CONSERVATION

Prepare a Multi-Disciplinary Project (MDP) on the topic "Water Conservation".

Include the following:

- Cover page with title and your name
- Introduction (importance of water conservation)
- Main content (causes of water wastage, methods of conservation, role of individuals)
- Conclusion
- Bibliography (if any)

Make it creative, colourful and informative (10-12 pages, handmade or digital).



6 LEARNER'S DIARY

Maintain a Learner's Diary on the topic "Water Conservation".

Include the following:

- Daily/weekly learning (facts, observations, new words, etc.)
- Your thoughts and feelings
- What you did to save water (small actions)
- Drawings / creative ideas / slogans



GENERAL INSTRUCTIONS

- ✓ Do your work neatly in a separate notebook / file.
- ✓ Use your own handwriting. No copying from others.
- ✓ Ensure correct spelling, grammar and punctuation.
- ✓ Keep the work original and creative.



SUBMISSION

First working day after the autumn break.

Save Water ♥ Save Nature ♥ Secure Our Future

PM SHRI KENDRIYA VIDYALAYA NO. 1, ROORKEE

AUTUMN BREAK HOLIDAY HOMEWORK WORKSHEET

Class: VII Subject: Social Science 15.10.26 and 16.10 26 do all the

questions of chapter understanding market

Question of understanding market

17.10.26 & 18.10.26

Worksheet.1 competency based questions

Have you observe any shop in your community or neighbourhood?

Describe weekly market as a drawing or short paragraph.

Write the difference between weekly market and Mall.

19& 20.10.2026 Second book

What are the main characteristics of Indian agriculture?

And practice all Indian states and their capitals

21 to 25.10.26 MDP

Weather and climate

पीएम श्री केन्द्रीय विद्यालय क्रमांक एक रुड़की

कक्षा 7

संस्कृत (दीपकम्) – शरद कालीन अवकाश गृहकार्य

1. “वन्दे भारतमातरम्” पाठ के अनुसार देशप्रेम पर अनुच्छेद संस्कृत में लिखें।
2. “नित्यं पिबामः सुभाषितरसम्” से दो सुभाषित छाँटकर हिंदी अर्थ लिखें।
3. “मित्राय नमः” पाठ से सूर्य नमस्कार का महत्व संस्कृत में लिखें।
4. “न लभ्यते....” में दी गई नीति-कथा का सारांश हिंदी में लिखिए।
5. “सेवा हि परमो धर्मः” के अनुकरणीय कार्य संस्कृत में लिखिए।
6. किसी एक पाठ से पाँच संस्कृत वाक्य लेकर व्याकरण की दृष्टि से समझाएं।(जैसे- उपसर्ग, धातु, प्रत्यय,लिंग, वचन,लकार)
7. 1से 8 पाठों के नाम क्रम से संस्कृत में लिखकर उनका(पाठों का)संक्षेप में परिचय हिन्दी में दें।
8. “हितं मनोहारि दुर्लभं वचः” पाठ की सूक्तियों को हिन्दी अर्थ सहित लिखें और याद करें।
9. **परियोजना कार्य** - कला समेकित परियोजना के अंतर्गत तेलंगाना राज्य के समुदाय के भोजन तथा भोजन के प्रकार का वर्णन संस्कृत में कीजिए तथा इससे संबंधित चित्र बनाएँ या

चिपकायें। (A4 शीट में file में लगाएं)

10. पाठ 3 से 8 तक Sanskrit Learner's Diary (संस्कृत लर्नर्स डायरी) तैयार करें।

सूचना:

शरदकालीन अवकाश गृहकार्य को प्रश्न 1 से 8 तक अपनी संस्कृत की नोटबुक में ही लिखेंगे।

प्रश्न 9. A4 शीट में file में लगाएं

प्रश्न 10. अलग संस्कृत की छोटी नोटबुक में लर्नर्स डायरी तैयार करें।

शरद कालीन अवकाश गृहकार्य

विषय हिंदी

कक्षा 7

नोट:

* सभी प्रश्नों के उत्तर लिखिए।

* लेख सुंदर और सृजनात्मक होना चाहिए।

1- निम्नलिखित विषयों पर लगभग 120 शब्दों में अनुच्छेद लिखिए।

क) स्वच्छता अभियान

ख) मोबाइल के लाभ और हानियां

2- अपनी किसी मनपसंद यात्रा के बारे में बताते हुए अपने मित्र को पत्र लिखिए।

3- पृथ्वी, गंगा, बादल, पहाड़, फूल, माता के तीन-तीन पर्यायवाची लिखिए।

4- पढ़ाई गई पाठों में से पांच मुहावरे खोज कर अपने वाक्यों में प्रयोग कीजिए

5- दो पेज सुंदर लेख में सुलेख कीजिए।

विषय शिक्षक

के सी सिंह

प्रशिक्षित स्नातक शिक्षक हिंदी

VII MATHEMATICS

1. Two figures are congruent if they have:
a) Same shape only b) Same size only
c) Same shape and same size d) Different shape and size
2. Which criterion can be used to prove two triangles congruent?
a) SSS b) SAS c) ASA d) All of these
3. An equilateral triangle has:
a) Two equal sides b) Three equal sides
c) No equal sides d) Four equal sides
4. The measure of each angle of an equilateral triangle is:
a) 45° b) 60° c) 90° d) 120°
5. Congruent figures always have:
a) Equal area only b) Equal perimeter only
c) Same shape and size d) Same color
6. In SAS congruence, we compare
3 sides b) 2 sides and included angle c) 2 angles and a side d) 1 side and 1 angle
7. If two sides of a triangle are equal, then the angles opposite them are:
a) Unequal b) Equal c) Right angles d) Obtuse angles
8. Explain why two triangles having sides 5 cm, 7 cm and 9 cm and 5 cm, 7 cm and 10 cm cannot be congruent
9. Two circles have radii 4.5 cm each. Are the circles congruent? Justify your answer
10. A right triangle has hypotenuse 13 cm and one side 5 cm. Another right triangle also has hypotenuse 13 cm and one side 5 cm.
Are the two triangles necessarily congruent? State the criterion used.
11. What is the value of: $12 \times (9 - 4) + 10 \div 2$
12. A number is multiplied by $\frac{4}{7}$ to get $\frac{16}{21}$. Find the number.
13. Arrange the following fractions in ascending order: $\frac{5}{6}, \frac{1}{2}, \frac{5}{8}$
14. A gardener planted flowers in $\frac{2}{7}$ of the garden and vegetables in $\frac{3}{7}$ of the garden. What fraction of the garden is still empty?
15. Find the value of the expression $10 + 2 \times 7 - 8 \div 4$
16. Arrange the following in descending order: 3.045, 3.45, 3.405, 3.054.
17. Express 75,38,46,120 in words using both the Indian and International Systems.
18. Fill in the blanks with >, < or =
(a) 4.05 ____ 4.5 (b) 0.7 ____ 0.70 (c) 3.408 ____ 3.48
19. Find the difference between 15.75 kg and 8.245 kg.
20. Estimate: $2,39,485 + 6,71,832$ by rounding each to nearest lakh.



AUTUMN BREAK ASSIGNMENT (2026-2027)

CLASS VII • SCIENCE
(Book: CURIOSITY)

NEP
Competency-Based CBSE KVS NCERT

READ & LEARN

Read Chapters 7, 8 & 9 thoroughly. Underline difficult words & find their meanings in the dictionary.

LEARNER'S DIARY

Complete Textual Questions for Chapters 6, 7 & 8 in your Learner's Diary.

Topic: 'WATER'

(Combining Ch 7, 8 & 9 - Draw a creative poster or timeline exploring the properties of water, the water cycle, poster or timeline exploring Heat Transfer, time/motion in nature, and vital Life Processes in animals).

DAY

1

Ch 7: Heat Transfer in Nature

Read, underline, and write 10 difficult word meanings in your notebook.

DAY

6

Activity

Record the time taken by 3 family members to walk 10 meters. Try calculating their speed (Speed = Distance / Time)!

DAY

2

Learner's Diary

Complete Chapter 6 Questions.

DAY

7

Ch 9: Life Processes in Animals

Read, underline, and write 10 difficult scientific terms in your notebook.

DAY

3

Activity

Observe heat transfer (conduction, convection, radiation) in the kitchen. Write observation sketches of a boiling pot or frying pan!

DAY

8

Learner's Diary

Complete Chapter 8 Questions.

DAY

4

Ch 8: Measurement of Time & Motion

Read, underline, and write 10 new word meanings in your notebook.

DAY

9

Activity

List & observe 5 primary life processes in animals (breathing, feeding, etc.). Draw a neat labeled organ system diagram (like breathing or digestive).

DAY

5

Learner's Diary

Complete Chapter 7 Questions.

DAY

10

Final Day

Complete your MDP project & organize all diary questions and word meanings for submission.

Stay Curious & Enjoy Your Break!

