



Clean water and Sanitation

After completing this lesson, students will be able to:

- respond to texts for different purposes (including arguments and discussions).
- use complex questions for a range of audiences increase vocabulary.
- analyze organizational patterns in a text:
 - a. list/ sequence of ideas/ events comparison-contrast
 - b. cause-effect
 - c. problem-solution
 - d. reasons/ assumptions-conclusion
- engage in extended discussions and critique taking into account other speakers' viewpoints and presenting one's own with clarity.
- identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy).
- distinguish between the connotative and denotative meanings of words, both similar and dissimilar denotations and their appropriate use in a variety of writing and texts.
- develop précis writing skills. Write précis effectively.
- write multiple paragraphs essays/stories; multi-stanza poems or playscript using mechanics of correct writing.
- write formal letters and emails to people in extended academic (professional) environments for various purposes

Pre-Reading

- Why is access to clean water and sanitation important?
- Discuss the main challenges in achieving clean water and sanitation worldwide

Reading

Ensure access to water and sanitation for all

Access to safe water, sanitation and hygiene is the most basic human need for health and well-being. Billions of people will lack access to these basic services in 2030 unless progress quadruples. Demand for water is rising owing to rapid population growth, urbanization and increasing water needs from agriculture, industry, and energy sectors.

The demand for water has outpaced population growth, and half the world's population is already experiencing severe water scarcity at least one month a year. Water scarcity is projected to increase with the rise of global temperatures as a result of climate change.

Investments in infrastructure and sanitation facilities; protection and restoration of water-related ecosystems; and hygiene education are among the steps necessary to ensure universal access to safe and affordable drinking water for all by 2030, and improving water-use efficiency is one key to reducing water stress.

There has been positive progress. Between 2015 and 2022, the proportion of the world's population with access to safely managed drinking water increased from 69 per cent to 73 per cent.

Why?

Access to water, sanitation and hygiene is a human right. To get back on track, key strategies include increasing sector-wide investment and capacity-building, promoting innovation and evidence-based action, enhancing cross-sectoral coordination and cooperation among all stakeholders, and adopting a more integrated and holistic approach to water management.

Water is essential not only to health, but also to poverty reduction, food security, peace and human rights, ecosystems and education.

Nevertheless, countries face growing challenges linked to water scarcity, water pollution, degraded water-related ecosystems and cooperation over transboundary water basins.

What are the challenges?

In 2022, 2.2 billion people still lacked safely managed drinking water, including 703

While-reading

What do you mean by sanitation and hygiene?

million without a basic water service; 3.5 billion people lacked safely managed sanitation, including 1.5 billion without basic sanitation services; and 2 billion lacked a basic hand washing facility, including 653 million with no hand washing facility at all.

By managing our water sustainably, we are also able to better manage our production of food and energy and contribute to decent work and economic growth. Moreover, we can preserve our water ecosystems, their biodiversity, and take action on climate change.

Are water and climate change inter-linked?

Water availability is becoming less predictable in many places. In some regions, droughts are exacerbating water scarcity and thereby negatively impacting people's health and productivity and threatening sustainable development and biodiversity worldwide.

Ensuring that everyone has access to sustainable water and sanitation services is a critical climate change mitigation strategy for the years ahead.

Without better infrastructure and management, millions of people will continue to die every year from water-related diseases such as malaria and diarrhoea, and there will be further losses in biodiversity and ecosystem resilience, undermining prosperity and efforts towards a more sustainable

While-reading

Give your suggestions on improving the drinking water quality for everyone.

What can we do?

Civil society organizations should work to keep governments accountable, invest in water research and development, and promote the inclusion of women, youth and indigenous communities in water resources governance.

Generating awareness of these roles and turning them into action will lead to win-win results and increased sustainability and integrity for both human and ecological systems.

You can also get involved in the World Water Day campaign that aims to provide information and inspiration to take action on hygiene issues.

Post-reading

Who can invest in water research and overall development?



Facts and figures	Goal 6 Target
• Despite great progress, billions of people still lack access to safe drinking water, sanitation and hygiene. Achieving universal coverage by 2030 will require a substantial increase in current global rates of progress: sixfold for drinking water, fivefold for sanitation and threefold for hygiene. • Water use efficiency has risen by 9 per cent, but water stress and water scarcity remain a concern in many parts of the world. In 2020, 2.4 billion people lived in water-stressed countries. The challenges are compounded by conflicts and climate change. • Key strategies to get Goal 6 back on track include increasing sector-wide investment and capacity-building, promoting innovation and evidence-based action, enhancing cross-sectoral coordination and cooperation among all stakeholders, and adopting a more integrated and holistic approach to water management. • Only 0.5 per cent of water on Earth is useable and available freshwater - <u>Wake up to the looming water crisis, report warns World Meteorological Organization</u> • Limiting global warming to 1.5°C	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes 6.A By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities

compared to 2°C would approximately halve the proportion of the world population expected to suffer water scarcity, although there is considerable variability between regions. Chapter 8: Water Cycle Changes (p. 1063)

- The global urban population facing water scarcity is projected to double from 930 million in 2016 to 1.7-2.4 billion people in 2050. Imminent risk of a global water crisis, warns the UN World Water Development Report 2023 | UNESCO
- Despite progress, 2.2 billion people still lacked safely managed drinking water services, 3.5 billion lacked safely managed sanitation services, and 2.0 billion lacked basic hygiene services in 2022
- Surface water bodies, such as lakes, rivers, and reservoirs, are undergoing rapid global changes, with one in five river basins showing high fluctuations in surface water levels in the past 5 years
- Water pollution poses a significant challenge to human health and the environment in many countries.

Source: The Sustainable Development

and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.B Support and strengthen the participation of local communities in improving water and sanitation management

(<https://www.un.org/sustainabledevelopment/water-and-sanitation/>)



Glossary

Given below are the difficult words from the unit. Look at their meanings and give synonyms of each in the given column. The first one is done for you.

Words	Meanings	Synonyms
scarcity	lack, shortness of supply	dearth
sanitation	the process of keeping places free from dirt, infection, disease, etc., by removing waste, trash and garbage, by cleaning streets, etc.	
infrastructure	the system of public works of a country, state, or region.	
predictable	capable of being predicted.	
sustainable	the ability to maintain or support a process continuously over time	
resilience	the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands.	
quadruple	consisting of four parts or elements.	
control, administration	a nation, a person, an activity, one's desires, etc.; direction, rule; regulation.	



Reading and Critical Thinking

a) Answer these questions.

1. Discuss the effects of drinking unclean water and bad sanitation on communities.
2. Why is demand for clean water rising day by day?
3. How can dirty water be purified? Describe in detail the procedure to purify dirty water.
4. Describe the adverse affects of unclean water and bad sanitation on communities and regions?
5. What role does water play in sustainable development and environmental conservation?

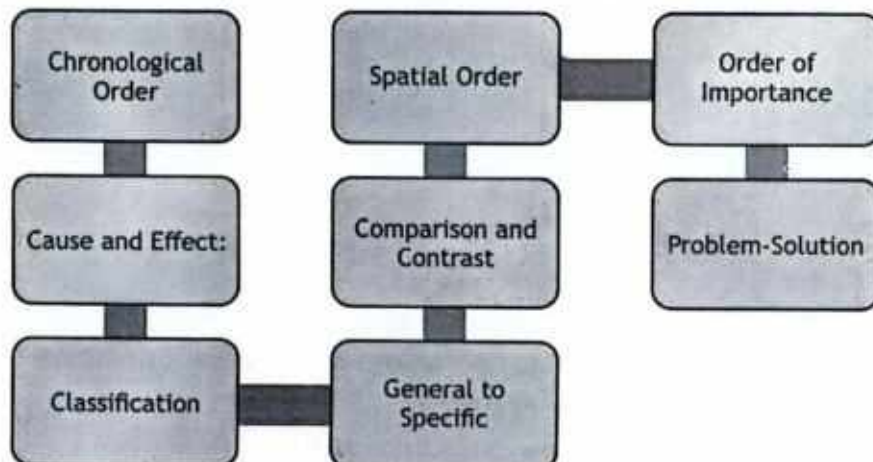
6. How does climate change impact access to clean water and sanitation?
7. What are the economic implications of investing in clean water and sanitation infrastructure?
8. How can technology and innovation play a role in improving access to clean water and sanitation?
9. Explore the way of purifying the contaminated water.
10. Identify the health issues caused by drinking unclean water.

b) Complete the blanks with suitable words.

- i. Access to safe water, sanitation and hygiene is the most _____ human need for health and _____.
- ii. Demand for water is rising owing to _____ population growth, urbanization and increasing water needs from _____, industry, and energy sectors.
- iii. Water is _____ not only to health, but also to poverty reduction, food security, _____ and human rights, ecosystems and education.
- iv. We can _____ our water ecosystems, their _____, and take action on climate change.
- v. Civil society _____ should work to keep governments accountable, _____ in water research and development, and promote the _____ of women, youth and indigenous communities in water resources governance.

c) Patterns of organization in a paragraph

Patterns of organization refer to the different structures or frameworks that writers use to organize information within a paragraph or text. These patterns help readers understand the relationships between ideas and follow the author's argument or narrative.



Activity

Make a mind map of the text according to the organizational pattern given above and summarize the article 'Clean water & sanitation'.



Oral Communication

Extended Discussions

Extended discussions refer to in-depth conversations or dialogues that explore a specific topic, issue, or subject matter in detail. These discussions often involve the exchange of ideas, arguments, and information among individuals or groups.

Activity

Make some groups in the class engage in extended discussions and critique taking into account other speakers' viewpoints and presenting one's own with clarity on basic priorities of spending a healthy life. Each group may discuss the given topics and note the important points. The presentation of peers may be in front of the class. Effective speaking style may be followed to present on health issues.



Vocabulary and Grammar

Kinds of verb:

Transitive Verb: A transitive verb always has a noun that receives the action of the verb. For example:

Ali gave Osama the pencil.

Laiba raises her hand.

Intransitive Verb: An intransitive verb never has a direct or indirect object. For example:

The girls sleep.

He died in an accident.

Finite Verb

Finite verbs mean those verbs which can change their form in accordance with the subject. It defines the time (past or present) and the subject. For example:

I eat rice. / He eats rice. / They eat rice.

I am a student. / He is a student. / They are students.

Infinite Verb

An infinite is a verb which has "to" before it. It shows infinite action when it is used at the beginning of the sentence. For example:

To see is to believe.

To be weak is miserable.

a) Decide whether the verbs in bold are transitive or intransitive

1. The girl **was crying** all day long. _____
2. We **showed** her the photo album. _____
3. It **was raining** at that time. _____
4. Mother **gave** a cookie to the child. _____
5. The doctor **advised** me to exercise regularly. _____
6. I **ate** the cherries. _____

b) Choose which verb is finite or infinite.

1. My little brother 'wants' to be an actor.
a- finite b- infinite
2. She worked hard 'to pass' the test.
a- finite b- infinite
3. I couldn't solve the problem.
a- finite b- infinite
4. To error is human.
a- finite b- infinite

c) Denotation and Connotation**Denotation**

Denotation refers to the literal, dictionary definition of a word. It is the explicit, objective meaning that a word carries. It is the most basic and straightforward meaning of a word, devoid of any emotional or cultural associations.

For example, the denotation of the word "snake" is a long, legless reptile.

Connotation:

Connotation, on the other hand, involves the emotional, cultural, or social associations and implications that a word carries beyond its literal definition.

Connotations can be positive, negative, or neutral, and they often depend on individual or societal experiences and perceptions.

For example, the word "snake" may have connotations of deceit or danger due to cultural and symbolic associations.

Examples:

"Home"

- Denotation: A place where one lives; a residence.
- Connotation: Warmth, comfort, safety, and a sense of belonging. It often carries positive emotions and attachments.

"Snake"

- Denotation: A long, legless reptile that slithers and often has a venomous bite.
- Connotation: Negative connotations are often associated with "snake" due to its use as a metaphor for deceit or betrayal. However, in some cultures, snakes may also symbolize healing or transformation.

Activity

For each word or phrase, identify its denotation (literal meaning) and then provide its connotation (emotional, cultural, or subjective associations). Use the context and your own understanding to determine the connotation.

Word/Phrase:	Denotation	Connotation
patriot		
curious		
storm		
old		
innocent		
aggressive		
skinny		
house		
smile		

e) Use the following phrasal verbs in sentences.

cut out _____

dress up _____

drop back _____

drop off _____

drop out _____

end up _____



Writing

Précis writing

Précis writing is a valuable skill that involves summarizing a longer text while retaining its essential meaning and main points. It requires concise and precise writing, eliminating unnecessary details and maintaining clarity. Here are some steps and tips for improving your précis writing skills:

- 1. Read Actively:** Carefully read the original text, paying close attention to its main ideas, arguments, and supporting details.
- 2. Understand the Text:** Ensure that you have a thorough understanding of the text's central message and key points.
- 3. Highlight Key Points:** Identify the most important ideas, arguments, examples, and evidence presented in the text. These will form the basis of your précis.
- 4. Create an Outline:** Organize your thoughts by creating a brief outline. This outline should include the main headings or topics that you plan to cover in your précis.
- 5. Write a Thesis Statement:** Craft a clear and concise thesis statement that summarizes the main message or argument of the text. This statement will guide your précis.
- 6. Start Writing:** Begin writing your précis by paraphrasing the thesis statement in your own words. This will serve as your opening sentence.
- 7. Focus on Clarity:** Write clearly and concisely, using your own words to convey the text's main ideas. Avoid jargon or overly complex language.

- 8. Eliminate Unnecessary Details:** Omit any minor or less relevant details that do not contribute to the core message of the text.
- 9. Maintain Proper Structure:** Follow a logical structure, typically starting with an introductory sentence, followed by the main points, and concluding with a summary of the text's conclusion or final thoughts.
- 10. Check for Accuracy:** Ensure that your précis accurately represents the original text's meaning and intent.
- 11. Edit and Revise:** Review your précis for clarity, grammar, and punctuation errors. Make any necessary revisions to improve its overall quality.
- 12. Keep it Within the Word Limit:** If there is a specified word limit for your précis, ensure that you stay within that limit while still conveying the text's key information.
- 13. Practice Regularly:** Like any skill, précis writing improves with practice. Regularly practice summarizing different types of texts to sharpen your skills.
- 14. Seek Feedback:** Share your précis with others for feedback and constructive criticism. This can help you identify areas for improvement.
- 15. Compare with the Original Text:** After writing your précis, compare it with the original text to ensure that you have captured its essence accurately.

Example:

Text	Précis
"Technology has revolutionized the way we communicate. In the past, people relied on letters and face-to-face conversations as the primary means of interaction. However, the advent of the internet and smart phones has changed everything. Now, we can instantly connect with anyone, anywhere in the world, through emails, social media, and video calls. This transformation has made our lives more convenient and efficient, but it also comes with challenges. Digital communication lacks the personal touch of in-person conversations, leading to misunderstandings and misinterpretations. Moreover, the constant connectivity can be overwhelming, affecting our mental well-being. In conclusion, while technology has brought incredible advancements in communication, we must also be mindful of its drawbacks."	Technology has transformed communication, replacing traditional methods with digital means like emails and video calls. While this offers convenience, it lacks the personal touch of face-to-face interactions, leading to misunderstandings. Furthermore, constant connectivity poses mental health challenges. In summary, while tech advances enhance communication, we must address its drawbacks.

Activity

Précis the given passage effectively using précis writing skill.

In a rapidly changing world, adaptability has become a crucial skill. Whether in one's career, personal life, or even survival, the ability to adapt to new circumstances and challenges is paramount. Adaptable individuals are not just resilient; they thrive in uncertainty. They can adjust their strategies, learn new skills, and embrace change with enthusiasm.

Adaptability is not about mere survival; it's about growth. Those who embrace change as an opportunity to learn and improve are the ones who succeed in the long run. They are like bamboo, bending with the wind but never breaking.

In essence, adaptability is the key to innovation and progress. It fosters creativity and encourages exploration. It allows us to break free from the constraints of the familiar and discover new horizons. In a world that is constantly evolving, adaptability is the secret to staying relevant and achieving lasting success.

Writing Mechanics

In writing, mechanics and conventions are rules and systems for how things should be written down in order to ensure that what ends up on the page is what one means to express. Areas that are governed by mechanics and conventions include grammar, punctuation, spelling, and capitalization.)

Activity

Write an essay using mechanics of correct writing on "Global Warming and its effects on Earth".



Teacher's Point



- For oral activity give topics to the students for discussion. Help them in preparation.
- Encourage students to distinguish between the connotative and denotative meanings of words, both similar and dissimilar denotations and their appropriate use in a variety of writing and texts.
- Motivate them to develop précis writing skills and to write précis effectively.
- Ask them to write multiple paragraphs essays/stories; multi-stanza poems or play script using mechanics of correct writing. Encourage them to use transitional devices as well to enhance the topic's details.

Email Writing

Writing professional emails in the workplace

What is email communication?

Electronic mail (e-mail) is a computer-based application for the exchange of messages between users. A worldwide e-mail network allows people to exchange e-mail messages very quickly.

Essential email components

Subject line

The subject line of your email should offer your reader the purpose of the email, but it should also be brief. If your subject line is vague, people may ignore your email, or it may be sent to the junk/spam folder.

Greeting

Choosing a greeting may appear to be an easy task, but you have to select the appropriate level of formality. Emailing a coworker with whom you are friends to ask a brief question is different from emailing your supervisor with a work-related request. Below are some greetings that straddle different levels of formality:

More formal:

Dear [Name],

Hello [Name],

Good morning/afternoon [Name],

Less formal:

Hi [Name],

Hey [Name],

Body

Depending on how your audience will react to the information in your email, you will need to decide whether to structure your email body using the direct or indirect method of communication. Either way, paragraphs in an email, when there is more than one, should be clear and concise. They are generally much shorter than paragraphs in an academic essay, for example.

Closing paragraph - summary, action items, polite closing

Sign-off

As with the greeting, you need to choose an appropriate sign-off for your audience:

More formal:

- Sincerely,
- Thanks/Thank you,
- Best,
- All the best,
- Best regards,
- Kind regards

Less formal:

- Talk soon,
- Cheers,
- See you,
- The Direct Method of Communication

Diagram illustrating the structure of a professional email template with labels pointing to corresponding fields:

- Your professional email address → From: _____
- Recipient's email address → To: _____
- Subject line → Subject: _____
- Greeting phrase → Dear _____
- Open line → | _____
- Body paragraphs → | _____
| _____
| _____
| _____
- Closing line → | _____
- Sign-off → _____
- Signature (Full Name, job Title, Company, Contact Details) → | _____
| _____

Diagram illustrating the structure of an email composition interface with labels pointing to corresponding fields:

To : johndoe@companyname.com

Subject : Your exclusive Premium subscription discount

Subject Line →

Email Body →

Email Signature →

Introduction →

Hi, John,
Thank you for being our loyal customer for over five years. We at (Company Name) really appreciate your commitment to our product, so to celebrate this, we've granted you a 70% discount on your yearly Premium subscription.

Use code JOHNDOE at checkout. →

Closing →

(Company Name) team

Remind me Save as Draft

Write an email to your bank manager and inform him that your cheque book's leaves have been finished . You have to request him to issue your 50 leaves cheque book immediately.

Teacher's Point

- Encourage them to write formal letters and emails to people in extended academic (professional) environments for various purposes.