

# 12

## Cleanliness: Health and Hygiene

We'll cover the following key points:

- Cleanliness and its Importance
- Diseases caused due to lack of cleanliness
- Importance of Clean Water, Clean Food and Clean Clothes
- Waste Management



Hi, I'm EeeBee

Do you Remember:

Fundamental concept in previous class.

In class 3<sup>rd</sup> we learnt

- How to maintain personal cleanliness
- Cleanliness in the surroundings

Still curious?

Talk to me by scanning the QR code.



### Learning Outcomes

By the end of this chapter, students will be able to:

- Understand the importance of cleanliness in maintaining good health and hygiene.
- Identify and practice basic cleanliness habits such as washing hands, brushing teeth, and bathing regularly.
- Explore how cleanliness helps prevent diseases and promotes overall well-being.
- Learn about the connection between personal hygiene and a clean environment, including proper waste disposal and sanitation.

### Guidelines for Teachers

The teacher can start the chapter by introducing the concept of cleanliness and its role in maintaining health and hygiene. Encourage students to share their daily cleanliness routines and discuss the benefits of good hygiene habits. Discussions can focus on the impact of poor cleanliness on health, such as the spread of diseases. The teacher can also emphasize the importance of keeping the environment clean, helping students understand how personal and environmental hygiene contribute to a healthier community.



Complete the table.

Name of the Disease	Mode of Spread
Diarrhoea	
Malaria	
Dysentery	
Skin Infection	
Tuberclulosis	

### Fun Fact



Good hygiene can prevent 80% of infections simply through handwashing! Brushing your teeth not only keeps cavities away but also helps maintain heart health, as gum diseases are linked to cardiovascular issues. Your skin renews itself every 28 days, shedding millions of dead cells daily. Keeping your environment clean reduces allergens and improves mental well-being—clean spaces, clear minds!

## Cleanliness and its Importance

Cleanliness is a virtue that we should practice in our daily lives. It is the state of being free of germs, dirt, stains, foul odour etc. We should all be aware of how to maintain cleanliness at all levels, whether it is personal cleanliness, surrounding cleanliness, work place cleanliness, environmental cleanliness etc. Clean surroundings help to maintain sound physical and mental health. Cleanliness in our lives should start with our homes which then should extend to our neighborhood, our city, our country. Our honorable Prime Minister Mr. Narendra Modi has started a very strong campaign for cleanliness called “Swatch Bharat Abhiyaan” to keep our country clean.

### Steps taken to maintain cleanliness

It is very important for us to devise ways to maintain cleanliness at all levels. Some of the steps taken to keep ourselves and our surroundings clean are as follows:



## Keeping ourselves clean:

- ✦ We should take a bath everyday.
- ✦ Brushing our teeth twice daily ensures proper oral hygiene.
- ✦ We should wear clean washed clothes every day after taking a bath.
- ✦ Regular washing of our hair is also important as sweat mixed with dirt leads to bad odour and dandruff.
- ✦ Washing our hands with soap and water is important before and after a meal, after handling pets and also after using the toilet as this helps to kill germs and prevent us from falling sick.
- ✦ We should use an anti perspirant that helps us feel fresh for a long time.

## Keeping our environment clean:

- ✦ We should clean our home and our surroundings regularly.
- ✦ Garbage should be disposed of properly in allotted bins.
- ✦ We should reduce the use of chemicals and pesticides.
- ✦ We should not litter in streets and public places.
- ✦ We should try to buy local produce and compost our food waste.
- ✦ We should say no to use and throw items like plastic straws, plates, cups etc. which do not degenerate easily.
- ✦ We should discourage the use of plastic carry bags and carry our own bags for shopping.
- ✦ Planting more trees will go a long way in keeping our environment clean.



## Diseases caused due to lack of cleanliness

In order to be fit and healthy, one must maintain good personal hygiene. These are the behaviors that must be practiced daily to protect our health. They include cleaning of our mouth, teeth, hair and body. Failing to do so will result in the growth of germs in our bodies and will cause illness. Many diseases are caused by lack of cleanliness. Some of these are diarrhea, dysentery, parasites, worms, tooth decay, malaria, skin infections etc. Let's read about them in detail.

**Diarrhoea:** It is a bacterial infection caused by infected food and water. It is characterized by loose, watery stool.

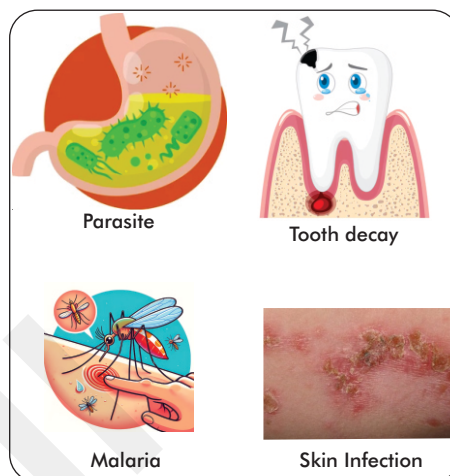


**Dysentery:** It is an intestinal infection caused by contaminated food and water. Careful hand washing and proper sanitation can help prevent the spread of this disease.

**Parasites:** A parasite is a living organism that lives on another organism (called a host) and harms it. Tapeworms, ringworms, roundworms etc. are parasites living on the human body. Proper cleanliness can help to prevent these from entering our body.

**Tooth decay:** It is a most common global disease. A major cause of tooth decay is sugary and sticky food that gets stuck in our teeth is not removed by brushing and flossing. Dental plaque is a yellowish sticky film that covers the tooth and gums. The plaque bacteria produces acids that eat away the tooth enamel thus creating cavities.

Besides brushing, it is important to floss which removes any food particles that remain in between teeth. Food remaining between teeth may result in gum disease, receding gums and bad breath.



A final step in oral hygiene is cleaning our tongue. After eating, the tongue becomes coated with bacteria, decaying food particles, fungi and dead cells. Scraping the tongue or brushing with a toothbrush removes these and prevents bad breath.

**Malaria:** Malaria is a disease caused by the female Anopheles mosquito. These mosquitoes breed where there is stagnant water. The symptoms of malaria are fever, vomiting, tiredness and headaches. This can be prevented by avoiding mosquito bites, by using mosquito nets and repellents and not letting stagnant water accumulate near our households which are the breeding grounds of these mosquitoes.

**Skin infections:** Most of the skin infections are due to poor hygienic conditions such as dirty clothes, dirty living conditions etc.

## Benefits of Good Health

It is important for each one of us to be in a healthy state of being.

- ✦ Healthy eating habits along with proper exercise reduce the risk of heart diseases.
- ✦ It helps us maintain an ideal weight.
- ✦ A fibre rich diet helps us prevent obesity thus reducing the risk of diabetes.
- ✦ A good physical health also ensures a good mental health.

## How to Keep Your Body Clean

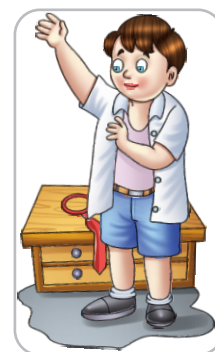
Good personal hygiene is the first step to good health. These steps help us to feel good about ourselves, protect us from ill health and also to save the ones near us from suffering from diseases caused due to poor hygiene practices. Following are a few practices that can help us achieve proper personal hygiene:

✦ **Keeping our body clean:** It should be a practice to take bath daily using soap and water. It is important to ensure that there is no soap leftover in our body after our shower. Thereafter, the body should be towel dried and clean washed clothes should be worn.



✦ **Wearing clean clothes:** Our clothes absorb sweat and dirt when we wear them. It is therefore advisable to wash our clothes after we wear them with detergent. Wearing clean washed and ironed clothes help us boost our confidence also.

✦ **Smelling good:** It is important for us to smell good and fresh at all times. Therefore it is advisable to use talcum powder that absorbs sweat and also a nice smelling deodorant can be used after that.



✦ **Cleaning our teeth:** It is very important to keep our teeth clean to maintain proper dental and oral hygiene. To achieve this, it is highly recommended to brush our teeth twice daily once in the morning and once at night after meals. During the day we can fill our mouth with water and swish it around to get rid of anything that remains stuck to our mouth. A dental floss can also be used in addition to cleaning our teeth.



✦ **Cleaning our hair:** It is also important to keep our hair and scalp clean.

For this, it is important to oil our hair on a regular interval with a good massage. This ensures removal of dead cells, excess oil and dirt followed by hair wash using a good shampoo. A wide mouthed comb may be used to detangle wet hair as it minimize breakage. Comb or hairbrush should be washed at regular intervals to keep it disinfected and clean.



✦ **Cleaning our feet:** It is important to keep our feet clean and odour free. Therefore it is important to wash them at least once a day. Then they have to be dried carefully wiping off water in between the toes. Shoes and socks must be carefully chosen and washed from time to time or wiped and cleaned with a cloth. It is important to change shoes.

## Importance of Clean Water, Clean Food and Clean Clothes

Water is one of the basic needs of all humans .The human body is made of 70% of water. Water assists in many of our life processes. Clean drinking water is known as potable water. The quantity of potable water on earth is limited and it is therefore very important for us to use it wisely. Depleting ground water, contamination of it by the wastes from industries and sewage makes it all the more unavailable and difficult to have access to. Lack of clean and safe





drinking water leads to many diseases such as diarrhea, cholera, typhoid etc.

Selection of the right kind of food is the first step towards healthy living. Contaminated and adulterated food are a major cause for several food-borne diseases. Food items should be purchased from reliable sources with long expiry dates. It is safer to buy reputed



### Did you know ?

#### A few hygiene facts:

Switchboards and TV remotes are among the most contaminated objects with bacteria levels between **2 to 10 times** higher than what's accepted from hospitals.

Your phone probably holds 500 times more germs than your toilet seat.

The term Hygiene comes from **Hygieia -the Greek goddess of health**, cleanliness and moon.

There's no “**five-second rule**” when it comes to dropping food on the ground. Bacteria need no time at all to contaminate food.

The human body is home to some **1,000 species of bacteria**. There are more germs on your body than people in the United States.

### Check 'N' Mate

#### Critical Thinking

Write '**T**' for true and '**F**' for false statements.

1. Clean surroundings help to maintain sound physical and mental health. ☐
2. We should discourage the use of plastic carry bags and carry our own bags for shopping. ☐
3. A major cause of tooth decay is sugary and sticky food that get stuck in our teeth. ☐
4. A fibre rich diet helps us to become obese. ☐
5. We should brush our teeth twice daily. ☐

brands as they have to maintain quality standards. Perishable food items should be stored under refrigeration which checks the growth of microorganisms that can spoil them. Cooked food should be consumed immediately as they are prone to infestation by microbes.

Clothes are the first things that people observe about us when we first meet them. It is therefore important for us to wear clean clothes at all times. Clothes worn once absorb sweat and dirt. These may prove to be breeding ground for microbes and produce foul odour. This can further lead to skin infections as



well. It is therefore important to wash our clothes after wearing them with detergent and water and dry them in the Sun to completely disinfect them.

## Cleaning your surroundings

As concerned and civilized citizens of this country, it is our prime duty to keep our surroundings neat and clean. The advancements in the field of technology and industries have resulted in a lot of pollution of air and water. Many a times we as people are irresponsible enough to litter our surroundings by throwing garbage indiscriminately on footpaths, roads, drains etc. instead of disposing it in proper dustbins. These gradually accumulate into huge heaps of garbage, become breeding grounds of various microbes and start to stink. The following steps can be taken in order to keep our surroundings clean.

✦ **Stop littering:** We as citizens should take a pledge not to litter our surroundings. Garbage should be segregated and disposed in proper bins. Green coloured bins should be used for wet wastes whereas blue coloured bins should be used for disposing dry wastes.



✦ **Say no to plastics:** Plastics especially the disposable ones are very harmful for the environment as they can't be recycled. So avoid using things such as plastic bags. Use a cloth or a jute bag instead. Also we may avoid disposable plastic items such as plates, glasses, bowls, straws etc. these are non-biodegradable and therefore end up polluting the environment.



✦ **Proper sewage:** The drains of our locality carrying dirty water should be well covered and it should be looked into that this dirty water does not go into bigger water bodies or into open areas.



✦ **Recycle E-waste:** Electronic waste or E-waste should be recycled in a proper manner as the technological advancement has resulted in the generation of a lot of it nowadays.

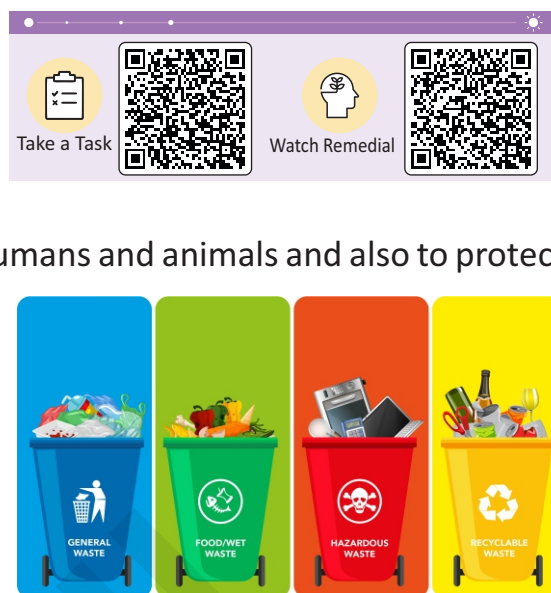
✦ **Afforestation:** Planting of trees on a large scale in our locality results in cleaning the air by absorbing dust and dirt and

preventing pollution.

## Waste Management

Waste management is the effective collection, transportation and disposal of garbage, sewage and other waste products. Therefore their effective management differs depending on the nature of waste that is produced.

Proper waste management is important for the safety of humans and animals and also to protect the environment. To achieve this, the first step is to segregate the wastes at source by disposing it off in separate bins. The next step is to transport the waste which is different for solid, liquid, infectious and organic wastes etc. Finally the disposal method is decided which may be either incineration or burning, burying and composting, recycling or treatment of the waste.



Following are the ways of waste management depending on the type of waste:

- 1. Incineration or burning:** It is a form of waste treatment which involves burning of the waste in huge chambers or furnaces. This process converts the waste into ash, gas and heat. The heat generated by this method is used to produce electricity.
- 2. Burying and composting:** Here, the waste is buried in lands known as landfills. However this method may result in air and water pollution and therefore is not very popular.
- 3. Recycling:** It is the method of converting waste products into new products to prevent the usage of fresh raw materials. This method helps to preserve natural resources for future use.

### The Three R's

The three R's play a major role in saving the environment and is thus the need of the hour. These three R's indicate Reduce, Reuse and Recycle. By following these 3 R's we can save our natural resources and help maintain a healthier planet.

**Reduce:** Reducing waste generation is the key to maintaining a clean environment. A few things that we can do to reduce waste generation are :

- ✦ We can use a cloth bag instead of paper or plastic bag. This reduce the waste generated.
- ✦ We can use cloth napkins instead of paper napkins and also restrict the use of disposable cups, plates , spoons , straws etc. which can help in creating less waste.
- ✦ Paper mail can be replaced by electronic mail.





- ✦ We may avoid the use of aluminium foil and cling wraps.
- ✦ We should buy products with long warranty that are durable so that less waste is created.

**Reuse:** Learning to reuse items or redesign them to use for a different purpose than what they were originally meant for goes a long way in waste management. Following are some of the ideas by which we can reuse items:

- ✦ Old Newspapers can be used to make either newspaper bags, to wrap items, to clean glass, to line shelves etc.
- ✦ Old jars and water bottles can be used in the kitchen to store various items.
- ✦ Rechargeable batteries should be used in place of regular batteries.



**Recycle:** To recycle an item means to change it into a new raw material that can again be made into a new item. For example:

- ✦ We should buy products from the market which are recyclable, i.e. they should be environment friendly.
- ✦ Rewritable CD's and DVD's should be bought so that they can be used many times.
- ✦ It is best to recycle old TV sets instead of disposing off as they contain harmful chemicals and ingredients. Instead we can sell them at a lower price so that they can be reused.

### Check 'N' Mate

#### Critical Thinking

**Fill in the blanks with correct words.**

- Learning to \_\_\_\_\_ (reuse/overuse) items or redesign them to use for a different purpose.
- \_\_\_\_\_ (Reducing/Increasing) waste generation is the key to maintain a clean environment.
- To \_\_\_\_\_ (recycle/made new) mean to change it into a new raw material that can again be made into a new item.



### In a Nutshell

- ✦ Cleanliness is the state of being free of germs, dirt, stains, foul odour etc.
- ✦ We should keep ourselves clean by taking bath daily, brushing our teeth, washing our clothes, washing our hands and hair regularly etc.

- ✦ We can keep our environment clean by disposing wastes at the allotted bins, by reducing the use of chemicals and pesticides, composting our food, by discouraging the use of plastics and planting more trees etc.
- ✦ Diseases like diarrhea, dysentery, parasites, tooth decay, malaria, skin infections etc. occur due to lack of cleanliness.
- ✦ The benefits of good health include less risk of heart diseases, maintenance of ideal weight, less risk of obesity and diabetes and overall good mental health.
- ✦ We should realize the importance of clean water, clean food and clean clothes in our lives.
- ✦ Effective waste management is very important which can be achieved by ways such as incineration, composting, recycling etc.
- ✦ It is important to realize the value of three R's in keeping our environment safe.

### Key Words

### Improving Vocabulary

Devise	: Plan or invent.
Degenerate	: Become worse in quality.
Litter	: Make untidy.
Oral	: Related to the mouth.
Hygiene	: Practices to maintain good health and prevent diseases.
Depleting	: Lessen in number or quantity.
Contamination	: Making impure by polluting.
Adulterated	: To make the quality poor by adding another substance.

### Time to Apply

### Applying and Creating

1. Vijay always has snacks like potato chips, noodles and burgers. Mohan spends his holidays sitting in front of the computer. He does not play any outdoor games or do any other form of exercise. What trouble could both of them be asking for?
2. When you have a cold and cough, your parents ask you not to go to school. Why?

### Time to Discuss

### Pondering and Communicating

1. Which steps would you take to prevent the spread of germs from a sick person?
2. Why should we not share towels and vessels with a patient of flu?
3. Rest and sleep are important for good health. Why?



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# EXERCISE

That turn curiosity into confidence—let's begin!



## A. Objective Type Questions.

1. Dental hygiene is also known as :
  - A. Brushing your teeth
  - B. Cleaning your tongue
  - C. Oral hygiene
  - D. Flossing
2. It is a most common global disease:
  - A. Tooth loss
  - B. Gingivitis
  - C. Bleeding gums
  - D. Tooth decay
3. Water that is fit for drinking is known as:
  - A. Distilled water
  - B. Contaminated water
  - C. Potable water
  - D. Natural water
4. Practices that help us feel good about ourselves and protect us from ill health are categorized under:
  - A. Washing clothes
  - B. Washing hands
  - C. Brushing teeth
  - D. Personal hygiene
5. A yellowish sticky substance that covers the tooth and gums:
  - A. Algae
  - B. Fungi
  - C. Protozoa
  - D. Dental Plaque
6. To reduce waste generation we can:
  - A. Use a cloth bag instead of a plastic bag
  - B. Not use disposable cups, plates, spoons etc.
  - C. Buy durable products.
  - D. All of the above.
7. Which of the following is true about Malaria?
  - A. It is caused by mosquito.
  - B. Mosquitoes breed in stagnant water.
  - c. Its symptoms include fever, tiredness and headache.
  - d. All of the above.

## B. Fill in the blanks :

1. Malaria is caused by \_\_\_\_\_.
2. \_\_\_\_\_ and \_\_\_\_\_ foods are major cause for several food borne diseases.
3. The first step in waste management is \_\_\_\_\_ of waste at source.
4. Our Prime Minister started a very strong campaign for cleanliness called \_\_\_\_\_.
5. \_\_\_\_\_ coloured bins should be used for wet waste and \_\_\_\_\_ coloured bins should be used for dry waste disposal.

## C. Very Short Answer Questions.

**Name the following simple machines :**

1. A form of waste treatment which involves burning of the wastes in huge chambers or furnaces \_\_\_\_\_.
2. Planting of trees on a large scale \_\_\_\_\_.
3. A bacterial infection caused due infected food and water characterized by loose , watery stool \_\_\_\_\_.
4. Huge plot of land where waste is buried \_\_\_\_\_.
5. The three R's of waste management \_\_\_\_\_.

## D. Short Answer Questions.

1. What is waste management? Why is it important?
2. List a few benefits of good health.
3. Name a few diseases that may be caused due to lack of cleanliness.
4. How does our surrounding get dirty? Suggest a few effective ways to clean our surroundings.

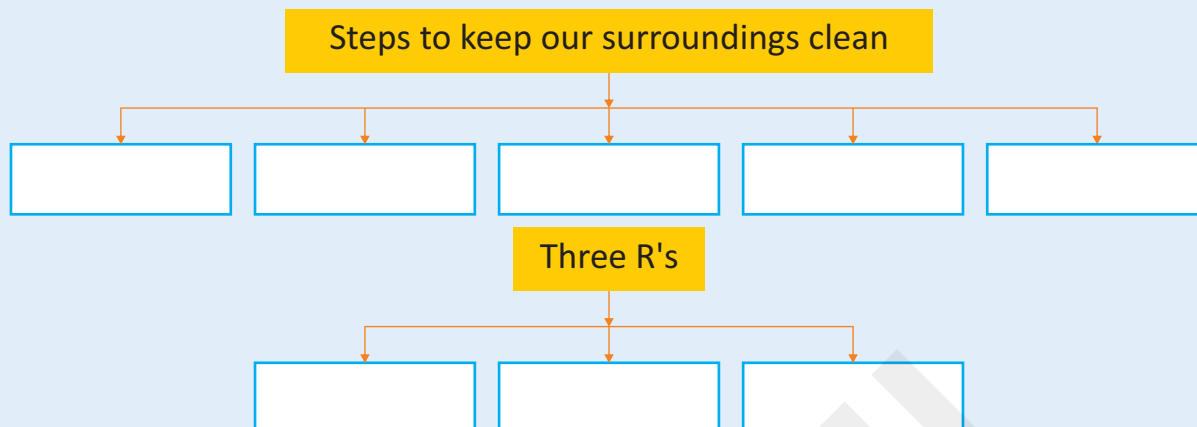
## D. Long Answer Questions.

1. What are the 3R's of the environment? Elaborate.
2. Describe a few ways of waste management depending on the type of waste.
3. What, according to you is the importance of clean water, clean food and clean clothes.
4. Elaborate with examples a few diseases that may be caused due to lack of cleanliness.





Recall and complete the concept map given below.



## Time to Observe

## Observing, Critical Thinking, Analysing

### Organize a cleanliness drive at your school.

- ✦ Plan out your course of action.
- ✦ Divide the class into groups.
- ✦ Assign specific areas of the school to each group (the cleanliness of that particular area is the responsibility of that particular group).
- ✦ Set up bins at appropriate places.
- ✦ Ask teachers and students to sign petition showing their support for the drive.
- ✦ Gather your cleaning supplies like rubber gloves, trash bags, clothes, bleach cleaners, feather dusters, brooms, mops etc.
- ✦ Spread a word about the drive.
- ✦ Word of mouth is a very effective tool in creating awareness so you may try announcing it as "Hey, a few of us are getting together on Saturday to clean up around the school. We might even meet up for pizza afterwards. You should come by and help!" This will help you get on board more people.



- ✦ On the day of the drive, focus on your allocated area as a group. (That will help you achieve perfection in your task).
- ✦ Practice safe cleaning practices. For example: avoid touching tissues while emptying waste paper baskets, wear disposable gloves and wash your hands with soap and water once you are done.



## Time to Create

Creating and Collaborating

Make a list of items that can be recycled or reused at your home in the table below. Share your list in the class and discuss how it can be done.

Paper	
Plastic	
Glass	
Other Things	