



ASHA MODERN SCHOOL

**A
BETTER
YOU**

Part-A : Life Skills & Value Education

Part-B : Health & Physical Education

CLASS-VII

(SESSION 2023-2024)

Part-A

LIFE SKILLS

&

VALUE

EDUCATION

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UNIT 1 : Handling Peer Pressure

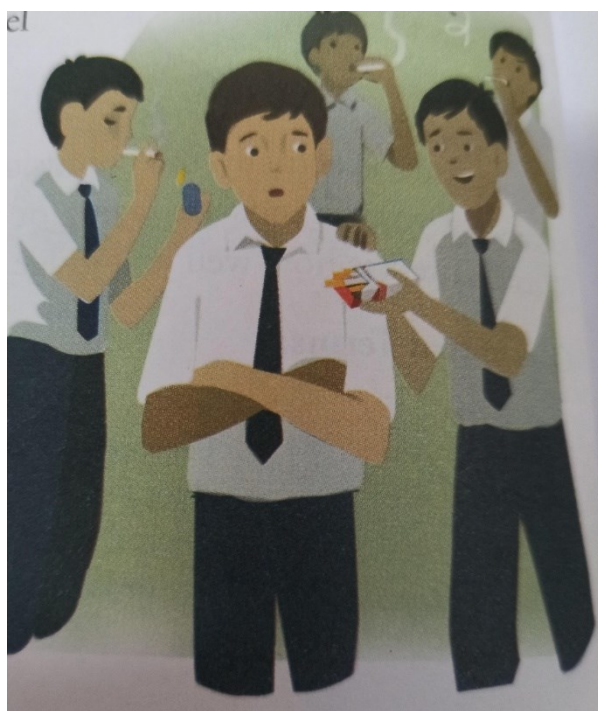
Peer pressure is actually the confusion you feel in your mind whether you should be going along with what your friends are saying or listening to your inner voice. It is normal to feel this confusion. What matters is how well you judge what is good for you and what is not.

It is common to be pressurized by peers: Not just children and teens, even adults may sometimes feel pressurized by a peer to do things they are not comfortable with. We all can learn from each other and empathize with each other.

It may be difficult and impossible to say 'No' : In some situations it may become very difficult to say no, especially if there is danger of physical harm being caused to you. In such cases, it is better to remove yourself from the situation.

Better to avoid such situations than having to take difficult decisions:

The human intuition is very strong. Sometimes we can sense this danger, in becoming friends with somebody or getting involved in a situation. If you sense this danger, it is wise to back off rather than get caught up and regret later.



Building Understanding

The term 'peers' refers to the people who are at a similar level as us, in terms of age and what they are doing in life, such as our classmates, friends from the neighbourhood and maybe siblings. Whether we admit it or not, all of us want to be popular among our peers and want others to look up to us with pride, as this makes us feel worthy, valued, and desired. Sometimes, in order to seem cool and happening to our peers, we may also do things which we do not like, such as going for an outing or claiming to like certain movies

and people, which is not actually true. This pressure to do things which we actually may not want to do, just to be popular among peers, is known as peer pressure.

Is Peer Pressure Real

In reality, there is nothing wrong with wanting to be popular. However, what really matters is the way we choose to become popular and also what we consider 'cool'. Many times, we may give in to the unreasonable demands of our peers who push us to do dangerous things like drinking, smoking, consuming drugs, bunking, etc as a way to establish a 'cool' image and to hang out with the 'right' crowd. This may obviously prove to be very harmful for our health, studies as well as having a long-term negative impact on our entire lives. Often one is required to engage in such behaviours as a way of feeling accepted by our peers and avoiding rejection and ridicule from them.

Peer pressure can be positive or negative. Positive peer pressure pushes us to be our best by motivating us to compete in different curricular and co-curricular activities. It also gives us a sense of belonging and support, introduces us to new hobbies and interests, increases self-confidence and reinforces positive habits and attitudes. Negative peer pressure is when we are pushed to engage in inappropriate behaviours such as bunking, lying, stealing, drug experimentation, driving at a high speed, bullying, shoplifting, etc as a way of being accepted as a part of the 'cool' group. This can make us feel guilty or disappointed as it makes us act in ways that are contrary to our and our family's core belief systems and values.

How to Handle Peer Pressure Well

Avoid judging people and try to accept them as they are.

Be patient as there are no shortcuts to becoming popular and focus on improving your skill set and the person you are.

Learn to appreciate others because a kind word you send out comes back to you.

Be open to learning, criticism and suggestions given by others rather than taking it to your heart and questioning yourself.

Be genuine in your interactions with others as anything fake doesn't last very long.

Suggest alternatives if you do not like what someone has suggested.

How to avoid Negative peer pressure

Never put down or ridicule others as when you make others look bad, it is actually your image that seems to go down more.

Do not follow peers blindly if you are uncomfortable with what they are doing.

Do not give in to bullying and undue pressure from anyone to be a certain way. Talk to your parents or teachers if you are repeatedly forced to do something by another student.

Do not hold grudges and forgive once a difficult situation has been sorted out.

Do not say things you do not actually mean because once others realize the deception, you might lose respect and in turn, friendships.

Do not get into conflicts with others but be firm on your decision.

Think Point

Choosing friends wisely can save you from peer pressure. Before you decide to call someone a friend, ask yourself if this person likes you the way you are or if they make you feel that you are not good enough unless you do certain things.

Individuals of all ages, especially adolescents, suffer from peer pressure. Adolescents suffer the most because they are at a stage of life where they are still trying to figure out their place in the world. They are not yet fully grown adults and neither are they young enough to have no opinions of their own.

They absorb things from their surroundings and one of those things is the pressure to be like everyone else, to do what is considered cool and popular and to be unique at the same time. These confusing ideas can lead them to try rebellious things like going against their parents and teachers and showing undue aggression.

Some of the following strategies can be used to deal with peer pressure:

1. Listen to your heart: Avoid choosing behaviours or actions that peers may want you to do if

these actions do not feel right to you otherwise.

2. Be assertive and work on your self-esteem: Learn to say no and identify different ways of responding to such situations. Also, avoid determining your worth on the basis of others' opinions. Develop your own sense of right and wrong.

3. Hang out with like-minded friends: Remember, there will always be some people who will agree and some who will always disagree with you and you cannot keep everyone happy.

4. Seek help: Sometimes, talking your heart out with your parents, teachers, school counsellor or someone whom you trust really helps.

5. Make an excuse: At times the most effective way to get out of a difficult situation is by making an excuse and escaping.

"It takes courage to grow up and become who you really are"

UNIT 2: Self - Esteem

What Is Self-Esteem?

In psychology, the term self-esteem is used to describe a person's overall subjective sense of personal worth or value. In other words, self-esteem may be defined as how much you appreciate and like yourself regardless of the circumstances. Your self-esteem is defined by many factors including:

1. Self-confidence
2. Feeling of security
3. Identity
4. Sense of belonging
5. Feeling of competence
6. Other terms that are often used interchangeably with self-esteem include self-worth, self-regard, and self-respect.

Self-esteem tends to be lowest in childhood and increases during adolescence, as well as adulthood, eventually reaching a fairly stable and enduring level. This makes self-esteem similar to the stability of personality traits over time.

Why Is Self-Esteem Important ?

Self-esteem impacts your decision-making process, your relationships, your emotional health, and your overall well-being. It also influences motivation, as people with a healthy, positive view of themselves understand their potential and may feel inspired to take on new challenges. People with healthy self-esteem:

1. Have a firm understanding of their skills.
2. Are able to maintain healthy relationships with others because they have a healthy relationship with themselves.
3. Have realistic and appropriate expectations of themselves and their abilities.

4. Understand their needs and are able to express them.

People with low self-esteem tend to feel less sure of their abilities and may doubt their decision-making process. They may not feel motivated to try novel things because they don't believe they're capable of reaching their goals. Those with low self-esteem may have issues with relationships and expressing their needs. They may also experience low levels of confidence and feel unlovable and unworthy.

People with overly high self-esteem may overestimate their skills and may feel entitled to succeed, even without the abilities to back up their belief in themselves. They may struggle with relationship issues and block themselves from self-improvement because they are so fixated on seeing themselves as perfect.



How to Improve Self-Esteem?

Fortunately, there are steps that you can take to address problems with self-esteem. Some actions that you can take to help improve your self-esteem include:

1. Become more aware of negative thoughts.
2. Learn to identify the distorted thoughts that are impacting your self-worth.
3. Challenge negative thinking patterns.
4. When you find yourself engaging in negative thinking, try countering those thoughts with more realistic and/or positive ones.
5. Use positive self-talk.
6. Practice reciting positive affirmations to yourself.

7. Practice self-compassion.

8. Practice forgiving yourself for past mistakes and move forward by accepting all parts of yourself.

Low self-esteem can contribute to or be a symptom of mental health disorders, including anxiety and depression. Consider speaking with a doctor or therapist about available treatment options, which may include psychotherapy (in-person or online), medications, or a combination of both.

UNIT 3 : Bullying



Bullying is when a person keeps doing or saying something on purpose to make someone else feel hurt, sad or embarrassed. One can say that bullying is a form of abuse. Bullies can be boys or girls. Bullies want to trouble and harm the person they are bullying. The bully bullies people for no reason at all. But sometimes people have an argument because they really feel differently about something. So, let's see what bullying is and what it is not.

Bullying someone is cruel. It hurts and is painful to the person being bullied. If others are bullying, you should never join in, even if the bully is your good friend. In fact, if the bully is your friend you should try to make them stop bullying others. If you keep telling them to stop and they still don't listen, you should think about whether you want to be friends with someone who behaves like this. You should be assertive and not submissive to the bully.

Being assertive : It means to express your feelings and views firmly and confidently, without being submissive or aggressive.

Being submissive or passive : Being passive is when you do not express your feelings or views even though you actually want to. This can be out of fear or due to a feeling that your views and feelings are not as important as that of the other person. If you are submissive, it is more likely that you will be bullied.

Being Aggressive: When you harm someone physically, say cruel things, threaten or ridicule them through gestures. This is what a bully does.

There are four kinds of bullying- physical, verbal, social and cyber. Verbal and social bullying can happen in the cyber world also.

Remember:

Strangers exist in the real as well as the virtual world, so rules for safety with strangers are applicable in both worlds.

Whenever you plan to go out with your friends, keep a check on them. Watch out for each other- for instance, while crossing the road, be in a group or at least in pairs. Avoid hanging out in a new place. Keep your eyes open. Observe your surroundings. Be alert. Look out of the window if you are travelling in a vehicle and see where you are going. Keep your ears open! Remove ear plugs.

UNIT 4: Child Rights



About 200 years ago the human population on the planet was 1 billion. At the time India got its independence, the world's population grew to more than 2 billion. By the end of the last century, it was already 6 billion Plus. In 2020 there were 7.8 billion (children 1.9 billion)people and India's population was 1.4 billion (more than 40% were children)

Millions of children in India still living on the streets work as bonded labourers, do not get enough food and lack access to life, to safe drinking water and education. The conclusion is simple .A lot is to be done for children .After all they are the future of the nation. Mid-day meal scheme under Sarv Shiksha Abhiyan is one such effort by the government which provides free hot, cooked and nutritious meals to 130 million children from classes 1 to 8 enrolled in 1 million Government schools and madrasas. Right to Information Act aims to empower citizens, promote transparency and restrict corruption. One can seek necessary information about various government schemes through an application -www.rti.gov.in .

Concerned grown-ups all over the world and in India want children to be healthy, happy and safe. They have formed rules for child safety. These rules are called **child rights**, **something** that a person must have or be provided with, as it is essential for their survival, protection and development.

Every child should have access to their rights. All children have these rights and have the same right irrespective of who they are, where they live, what their parents do, what language they speak or the religion they practice. It doesn't matter what gender they belong to, what their culture is, whether they have a disability, or whether they are rich or poor. No child should be treated unfairly. Even governments cannot treat children in an unfair way. As recently as three decades ago in 1989, governments of various countries came together for the first time in history, at a convention under the **UN-United Nations** Organization- to discuss what children need and what is good for them. Eventually, almost

all the countries agreed to the mandate/ ruling that was laid down in the convention, for example, any person below 18 years is a child. They also agreed on four basic child rights.

1. Right to Survival: Children have the right to food, clothing, a safe place to live and to have their basic needs met.

2.Right to Protection: Children have the right to be protected from being hurt, mistreated and exploited in Body or mind.

3.Right to Participation: Children have the right to find out things and share what they think with others by talking, drawing, writing or in any other way, unless it harms or offends people.

4.Right to Development: Children have the right to good quality education as well as rest and play. All the rights that one has are not independent of each other. They are to be carefully and continuously balanced out with the rights of others.

Some other child rights based on the four basic rights guaranteed by the constitution are :

1.Right to free and compulsory elementary education for all children till the age of 14 years

2.Right to be protected from any hazardous employment till the age of 14 years.

3.Right to be protected from being abused and forced by economic necessity to enter occupations unsuited to their age or strength.

4.Right to equal opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and guaranteed protection of childhood and youth against exploitation and against moral and material abandonment.

5.Right to early childhood care and education to all children until they complete the age of six years.



UNIT 5 : Overcoming Negative Thinking

You Become What You Think

The biggest obstacle you will ever have to overcome is your mind. If you can overcome that, you can overcome anything".

-Anonymous

The mind of human beings is always active, even when we are asleep. Many different thoughts run through our minds as we go daily tasks right from the moment we wake up in the morning. If you think about it, your thoughts range from planning the rest of the day, looking forward to certain aspects and dreading certain others. Besides this, you form opinions and judgments, which in turn, shape your behaviours. One more important realisation would be that most of our thoughts tend to be negative. Sometimes we ignore them, sometimes we are deeply affected by them and sometimes we try to convert them into positive thoughts, depending on our personality and mood at the time.

OVERCOMING NEGATIVE THINKING Negative thought patterns are repetitive, unhelpful thoughts about ourselves, situations and the people we encounter they directly cause what we could describe as 'negative' (unwanted or unpleasant) emotions like stress, fear, shame, etc. Having negative thoughts is not a problem and in the people fact, it is normal. However, these negative feelings, if not controlled, eventually turn into anxiety and may lead to serious consequences for our lives.

SOME COMMON NEGATIVE THOUGHT PATTERNS

Related to self-esteem: 'I am not good/smart/intelligent enough', 'I will not be able to achieve this' and so on.

Related to others: 'Nobody understands/ likes/loves me', 'People can see my flaws, so I should not be too close to anyone' and so on.

Related to situations: 'I am so unlucky; someone always does better than me', 'If I don't agree with my friends, they will stop talking to me' and so on.

ALTERNATE POSITIVE THOUGHTS

'I can do whatever I set my mind to', 'things may seem hard but it doesn't mean my capabilities can't match up'.

'Everybody has a different perspective, and that's alright', 'I am what I am, and I need not pretend otherwise to please someone else'.

'I will work hard and always put in my best efforts even through luck may not favour me sometimes'.

Related to body image: 'I am not slim enough', 'My hair is too curly/straight/short' and so on.

Related to self-esteem: 'I am not good/smart/intelligent enough', 'I will not be able to achieve this' and so on.

Related to others: 'Nobody understands/ likes/loves me', 'People can see my flaws, so I should not be too close to anyone' and so on.

Related to situations: 'I am so unlucky; someone always does better than me', 'If I don't agree with my friends, they will stop talking to me' and so on.

Related to body image: 'I am not slim enough', 'My hair is too curly/straight/short' and so on.

'If I don't feel comfortable with something, I need not do it'.

'My body is precious, and I appreciate it', 'I strive to be the best I can be since there is no such thing as perfect'.



The human brain relies on habit to function. If we form a habit to think negatively, we start looking at most things in a negative way. So, it's important to teach the brain the habit of thinking positive thoughts.

To overcome negative thinking, the common techniques we use are: Try to distract ourselves, divert our mind, push our negative thoughts away, not to drown in sorrow and cry or even make negative stories around it. But none of these ways are effective in the long term. The only long-term solution is to change the thought patterns by understanding ourselves better and understanding where the negative thoughts originate from.

Some of the more effective ways of overcoming negative thinking are as follows:

- 1. Dwell deeper:** Try to find out what is causing you to think negatively.
- 2. Face your underlying fears and insecurities:** Our fears and insecurities tend to distort the way we look at and think about things.
- 3. Recognise your negative thought patterns:** Try and learn to distinguish between thoughts and facts. The real problem is believing all the negative thoughts to be the truth.
- 4. Avoid apprehensions:** Instead of focusing on our present, we tend to worry about all the terrible things that could happen to us in the future, even when there is no way of knowing whether the things will actually happen or not.
- 5. Look for solutions:** Repeatedly thinking about problems and worrying doesn't help. It is better to learn from our past mistakes and alter our current behaviour for good by adopting a solution focused approach.
- 6. Stop paying too much attention to negative thoughts:** The more you focus on a negative thought and discuss it with others, the longer it will stay with you.
- 7. Spend more time with positive people:** The company we keep is a big influence on our thinking.
- 8. Reality check:** Overthinking and worrying makes us interpret reality inaccurately. It is better to keep asking yourself if what you are thinking is indeed correct or is it just your mind making up things because of negativity.

UNIT 6 : Abuses



What is abuse? Abuse is treating someone badly or hurting them. The person who does the abuse is called an abuser. Abuse can make us feel hurt, confused, ashamed, sad, scared and guilty. Abusers indulge in many types of abuse like:

Physical: It is when a person physically hurts or causes harm to another person. Whether or not the person being harmed has been injured, it is still counted as physical abuse. So, someone may not be injured by a pinch or a slap, but it is still physical abuse. Physical abuse crosses a person's physical boundaries.

Verbal: Screaming, saying bad

words, swearing or saying hurtful things to someone is called verbal abuse. Many people swear, but it is a kind of verbal abuse, and it should not become a habit. It is wrong to hurt someone with words. We should not do it.

Emotional: It hurts our feelings. Some examples of emotional abuse are:

- Name-calling or saying things to hurt someone's feelings on purpose.
- Telling someone that they're bad and deserve to be punished.
- Locking someone in a room, closet, or other place.
- Scaring someone by saying that bad things will happen to them or their loved ones if they don't listen to or do what the abuser wants.

Family: It is when a parent, family member or caregiver abuses or neglects a child. This can happen in different ways, like when a family member fails to care properly for their child. For example, when parents do not give their children enough

warm clothes for winter or when they do not look after their child when they are sick. This is **physical neglect**. Just like this, there can be emotional neglect. For example, when a family member does not care when their child is going through a difficult time or does not make them feel loved and supported.

Sexual: Sometimes, we may not be sure if what has happened to us is sexual abuse. That's why it is important to pay attention to our feelings. If we feel uncomfortable, dirty, helpless, scared, angry, ashamed, guilty, or upset, it may be sexual abuse. It is wrong of the abuser to abuse us. Whenever an abuse happens, it is always the fault of the abuser and the abuser alone. If we feel we have been abused, we should tell someone we trust as soon as possible so that we can get help, be safe, and feel safe.

We should always try to protect ourselves from abuse. Maybe the abuse happened, or is still happening, and we are too scared, worried or confused to tell anyone about it. Still, it is important that we stay safe. Here are some tips:

1. Make and follow safety plans like 'The Seven Safety Rules'
2. Try not to be alone with the person who abused you. If you know the person is going to be somewhere, either try to have someone with you, or try to avoid being there at the same time as the abuser.
3. Make excuses: It's alright to make excuses and to be safe. For example, you could say: "I have to go because my grandmother is waiting for me."
4. Plan where you can go or hide where your abuser won't find you. If you are forced to be with the abuser alone, you can lock yourself in the bathroom or in a room till someone else comes, or till the abuser goes away.
5. Ask a friend to be with you at the time the abuser usually tries to be abusive.

The best way to protect yourself is to tell someone you trust, as soon as possible!

How to tell a trusted adult?

It is good that you have adults you love and trust, but it is still hard to tell them about abuse. You need to be brave and talk about it because that is the only way to stop the abuse and help you be safe and feel safe. Here are some ways you can tell a trusted grown-up:

1. Go to the trusted adult when no one else is around. Say, "I need to talk to you."
2. Go where you will not be disturbed and say, "Something has happened. I need your help."
3. Say, "Someone has hurt me / touched me / abused me, and I want it to stop."

The person you tell might be surprised, upset or sad or shocked to hear what has happened to you. They may become angry or may say that they don't believe you. This does not mean that the adult thinks you are lying . It is just that they are shocked and will take some time to get used to the fact that someone has tried to do something unsafe to you. It may also be because they may feel that the abuser could not

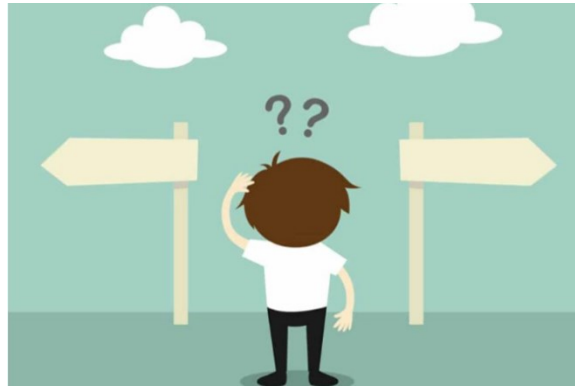
have done this type of abuse to you. Don't be scared if the person you tell becomes very angry. They are not angry with you, they are not blaming you. They are angry that the abuse happened, and they may be extremely angry with the abuser. This does not mean that their anger is meant for you. It's not your fault that you were abused. If the person you tell doesn't help you right away, tell someone else. Keep telling till someone believes you, even if the person you tell believes you, you can always tell another person also. If you are not ready to speak to someone you can try telling them in a letter. Give the letter to a grown up you trust even if you are not ready to give the letter to someone, writing it all down will help. And when you feel ready, you can give the letter to a trusted adult who can help you .



If you have been brave enough to tell about the abuse and the person you told believed you, you may think that everything will be alright, immediately. You may think that the abuser will be caught and punished and will never be able to come near you again. But in reality, it might take some time before you feel safe again. This is because responsible people need to meet to decide what action to take. Then they will have to take that action. You will also need some time to get used to the changes that take place. As these changes take place, you can help yourself feel better and safe by:

1. Talking to someone - It is important to be able to share your feelings with an adult you trust. It's okay to ask for help because you will need help. In fact, it is good to ask for help.
2. Keep busy- Do things you like to do.
3. Spend time with your friends.
4. Watch funny, superhuman movies and TV shows. Laughing is good and will always help you feel better.
5. Join a team. Playing sports is a great way to make new friends and stay busy, and exercise makes you feel happy.
6. Journal: Write a diary every day. Feelings are private. You don't have to share them if you don't want to. Your journal is a safe place to write down what you feel.

UNIT 7: Decision Making



Decisions usually require us to balance our thoughts and emotions. There is often an interplay of what we desire, our feelings and what is logically appropriate. When you are involved in a decision-making process,

- List the consequences of your decisions and how you feel about them, and
- Consider how your decisions might affect other people involved in the situation and how they might feel

A decision is likely to be good when the consequences of our actions are more positive than negative for everyone involved. In the digital world, our decision-making skills impact how we interact with people. When we go online, what we post influences others' opinions about us. By filling out personal details on an e-form, or using email services, creating personal profiles online, posting pictures and videos online, adding personal comments on social media, and so on, a great deal of our personal information gets stored on the internet and shared in the public domain. This information can be traced anywhere and at any time and is called digital footprint. For instance, if we write a post on someone's Facebook wall it can be traced even years later. Information that includes history of Internet search, documents created and downloaded, and passwords saved can be found from every digital device we use, be it a smartphone, tablet, laptop, or a personal computer. Hence, it is important to carefully consider the kind of information we create, view, and share digitally.

Key to Better Decisions

Before making any decision, it is important to pause for a while and ponder. The sooner we develop this habit, the better we become because this prevents snap decisions. It can prove to be our strength especially in difficult situations. For instance, instead of

immediately agreeing to accompany friends to a party, we may take a while to reflect and weigh the consequences of this decision for ourselves as well as for our parents. This gap in time allows us to recall the impact of such decisions that we may have taken in the past. We may notice that staying up late at night makes us less attentive in school and therefore leads to the realization that it is better to sleep on time on a school night rather than go partying.

Thus, when we take a moment to arrive at a decision, we can use that time to

- Look at our choices and their consequences
- Assess our short-term benefits (feel good factor, fitting in) against harmful outcomes (adverse effect on health, feeling of regret) for ourselves or others
- Evaluate whether peer pressure is influencing a decision that we would otherwise not take
- Seek advice if needed

Remember to pause before taking decisions that need to be 'thought through'.

UNIT 8: Emergencies

Water Conservation

There was a time when we used to drink water directly from freshwater sources like rivers and ponds as other animals do. But that was a long time ago. In the last 400 years, our population has grown manifold, and the water demand has also gone up significantly. To make the matter worse, industrialisation (setting up of factories) and sewages have led to pollution of not only our air but also most of our freshwater bodies like rivers, ponds, lakes, wells (groundwater). The water is contaminated and no longer safe for drinking, and at some places not fit even for plants and animals. Nowadays, safe drinking water is a commodity. There are three main causes of water contamination: wastes from sewage (toilet), industry (factory) and farming (fertilizer). All these three wastes, directly indirectly, end up in our freshwater sources. Contaminated water can have oil, bacteria like coliform, harmful chemicals and toxic metals like lead and other harmful contaminants. Water that may look or smell clean to our eyes and nose may not be clean at all because our eyes and nose cannot detect all kinds of contamination. Therefore, the health authorities have come up with the Water Quality Index - WQI. Based on the status of water quality data, the WQI value ranges from 0 to 100. WQI has five categories: heavily polluted (0-24), poor (25-49), fair (50-74), good (75-94) and excellent (95- 100). The suitable drinking water falls in good and excellent categories.



Water can be purified in many ways. The process of purification, generally, depends upon the type of contamination: Boiling kills germs; Iodine - kills germs; Chlorine - kills bacteria (but too many drops can be poisonous); Filters - removes bacteria, chemicals and other harmful particles; Ultraviolet Light - kills germs; Distillation - kills germs, remove salts, metals such as lead. Here is how distillation works - water has a lower boiling point than contaminants. It is heated until it attains its boiling point. Then the temperature is maintained until it evaporates, completely. The vapours get collected into a condenser. Upon cooling, the vapours become clean liquid water. Distillation is useful but not practical when it comes to purifying large amounts of water.

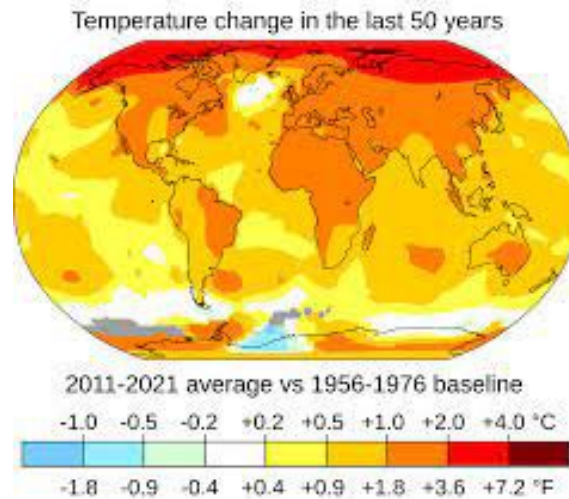
Fresh drinking water has become an acute problem for the world. If we do not change our lifestyles and save water, it will have catastrophic effects on all living beings, and that includes us too. We have to harvest water. Water harvesting means capturing rain where it falls or capturing the runoff at a place like a house, school, field and others.

Climate Change

Depletion of Ozone layer

Where there is a will, there is a way: Harmful UV light of the sun is blocked by ozone, a sister gas of oxygen found mostly in the upper atmosphere. Scientists discovered in the 1970s that the ozone layer was being depleted and big gaps or holes so to speak were formed in the upper layer of the atmosphere. They found scientific evidence that the cause was a wide range of human activities related to refrigerators, air conditioners and fire extinguishers. Most of the ozone-depleting substances emitted remained in the upper layer of the atmosphere for decades, meaning that the ozone layer recovery was a slow process. All the countries in the late 1980s joined hands under the UN's Montreal Protocol to curb and ban the use of ozone-depleting substances. By the end of the last century, ozone levels in the atmosphere began to look normal.

Time is running out! The problem of enhanced global warming began with the industrial revolution when we started using or burning non-renewable fossil fuels excessively. Scientists came to know about it only some 50 years ago. In today's modern world, almost all of our energy requirement comes from burning fossil fuels that release high amounts of CO₂ in our atmosphere. The release disturbs nature's delicate balance. Coal, oil and natural gases are non-renewable energy resources. They formed millions of years ago from the remains of living things. Once we have used them all up, they will take millions of years to replenish, if they can be replaced at all. It is estimated that we will run out of fossil fuels by the end of this century. We have to find an alternative, so why not now?



Now or never: The average temperature of the Earth which is 15 degrees centigrade is rising and so is the amount of Co₂. The overall temperature of the earth has risen and fallen earlier also. However, the process was quite slow and the delicate balance of nature was not disturbed. The rise happened over a period of thousands of years, so most life forms got enough time to adapt to the changes or migrate to suitable places. The last ice age lasted for 10,000 years. When it finally ended the average temperature of the earth had gradually risen by 5 degrees. Still, it was the end of the road for some animals like elephant's cousins Mammoth and Saber tooth of the cat's family who became extinct. They could not make it and are no longer with us. Imagine what would happen in a situation when the average temperature of the earth rises by 5 degrees in one lifetime rather than in thousands of years. There will be catastrophic effects like rise in sea levels leading to submergence of many places (cities and countries); increased desertification; all life forms including billions of humans despite being at the top of the food chain will not get a chance to adapt to these sudden changes let alone migrate.

A variety of activities that we do, and our lifestyles are responsible for the enhanced global warming. It is we who are heating the earth at a breakneck pace. We have to mend our ways no matter what and hope that it is not too late. It is now or never.

Mending our ways: We produce more CO₂ than what plants and oceans can absorb. In the last 100 years, the world's human population has quadrupled from two to eight million. Population control is the need of the hour. It is estimated that the human population will reach its peak by 2065 and then start to decline. Every day on average, we each exhale around 1 kg of CO₂ into the air. We keep ourselves warm in cold places by burning vast amounts of fossil fuel. Constructing brick and mortar infrastructure like roads, bridges and houses requires materials that can only be made by consuming massive amounts of fossil fuel. Our sources of transportation like buses, cars, ships and aeroplanes again are huge

consumers of Fossil fuel. Producing electricity also involves burning massive amounts of fossil fuel. Almost all the things in our life from clothes and cell phones to toothbrushes are made by using fossil energy. Thus, each one of us has a carbon footprint (CF).

CF is the amount of CO₂ released into the atmosphere as a result of the activities of a particular person, organisation, community, trade or country. We need to shift our energy requirements to alternative sources of energy like nuclear, solar and wind. We have to plant more trees which are the natural consumers of CO₂.

Prevention is better than cure: Many countries in the world including India have taken steps to increase green cover and cut down on CO₂ thus reducing CF by introducing alternative sources of power like nuclear and solar. Only the collective effort of all the people across borders can solve the problem of enhanced global warming.

Part-B

HEALTH

&

PHYSICAL

EDUCATION

COMPILED BY: MANOJ SHARMA

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TERM – 1
UNIT 1: SOME SIMPLE AEROBIC EXERCISES

Aerobics

Aerobic exercises strengthen heart and lungs and train the cardiovascular system to manage and deliver oxygen more quickly and efficiently throughout the body. Aerobic exercises use large muscle groups, are rhythmic in nature, and can be maintained continuously for at least 10 minutes.



Following are the set of some aerobic exercises and their benefits:

1. Stair Training

Primary Muscles Targeted: Quads, Glutes, Hamstrings and Calves

How to perform:

- ❖ With a steady pace, go up and come down on the stairs for at least 10-15 minutes. It is your warm- up exercise.

2. Skipping

Primary Muscles Targeted: Shoulders, Quads, Glutes and Calves.

How to perform:

- ❖ Stand with your feet at shoulder width apart. Grasp the jump rope handles with both hands.
- ❖ Use your wrists to swing the rope over your head.
- ❖ Quickly hop over the rope as it comes towards the front of your feet. And repeat.

3. Squat Jumps

Primary Muscles Targeted: Quads, Glutes and Hip Flexors

How to perform:

- ❖ Begin with a standing position with your feet shoulder width apart.
- ❖ Perform a normal squat.
- ❖ As you complete the downward motion, jump in the air.
- ❖ As you land, lower the body back to normal squat position to finish rep one.
- ❖ Do four sets of 10-15 reps and take no more than 30-60 seconds of rest between each set.

- ❖ You should also keep in mind to keep a steady pace throughout the exercise.

4. Burpees

Primary Muscles Targeted: Chest, Triceps, Delts, Quads and Hamstring

How to perform:

- ❖ Start off with a standing position with hands on the side.
- ❖ Drop down to a squat position but with your palms on the ground. Kick your legs back while keeping your arms extended.
- ❖ You will be now in a high plank position.
- ❖ From high plank position, immediately return to squat position.
- ❖ Jump from this position to finish the first rep.

5. Jumping Jacks

Primary Muscles Targeted: Calves, Glutes, Deltoids and Lats

How to perform:

- ❖ Start with feet together and hands down by the side
- ❖ Jump your feet out to the side and raise your both arms above your head simultaneously.
- ❖ Immediately jump back to starting position. And repeat.
- ❖ It's a little warm-up exercise before you get into real hard aerobic training.

6. Bear Crawls

Primary Muscles Targeted: Triceps and Deltoids

How to perform:

- ❖ Start with a plank position keeping your arms and legs extended on the floor.
- ❖ Keeping the same posture, crawl forward at steady pace.
- ❖ Bear in mind to put more weight on your arms and less on our legs.
- ❖ Do it for at least 60 seconds.

7. Inchworm

Primary Muscles Targeted: Hamstring

How to perform:

- ❖ Begin with your feet shoulder-width apart and tight core.
- ❖ Place your hands on the floor as you bend from the waist.

- ❖ Now keeping your legs straight, walk hands forward till you reach a high plank position.
- ❖ When you reach high plank position, quickly walk your feet towards your hand and stand. That's rep one.

8. Mountain Climber

Primary Muscles Targeted: Abs and Hamstring

How to perform:

- ❖ Get into a high plank position with core tight.
- ❖ Bring right foot forward just near to your right hand so that you are in a low lunge position.
- ❖ Now step right foot back and quickly step left foot forward.
- ❖ Do this in quick progression.

9. High Knees

Primary Muscles Targeted: Quads and Glutes

How to perform:

- ❖ Stand with your feet hip-width apart and run in place at a steady pace by pulling both the knees alternatively to chest.
- ❖ Do as quickly as you can.

10. Plank Jacks

Primary Muscles Targeted: Glutes, Hamstring, and Hips

How to Perform:

- ❖ Start with a high plank position, keeping your core tight, jump your feet apart and jump them back together.
- ❖ Remember not to jump your feet either too broad or too narrow.
- ❖ Also, maintain the hips at the same level throughout the exercise.

11. Flutter Kick

Primary Muscles Targeted: Lower abs

How to perform:

- ❖ Lie on your back with your face facing the ceiling and your abs drawn inside.
- ❖ Slide your hands beneath your lower back curve for additional support.

- ❖ Now using core lift your both legs so that they make an approximate right angle to the upper body.
- ❖ Kick your feet up and down several inches just above the ground. Rep speedily as you can.

12. Donkey Kick

Primary Muscles Targeted: Glutes and Hips

How to perform:

- ❖ Get into a high plank position and keep your core tight.
- ❖ Now jump your feet into the air and kick your butt with heels.
- ❖ Return back lightly on your toes.
- ❖ Make sure that you keep your shoulders in line with your wrists.

13. Jumping Lunges

Primary Muscles Targeted: Quads and Hamstrings

How to perform:

- ❖ First of all, you need to master the basic lunge version before you move on to this variation.
- ❖ Start by dropping off into a low lunge position.
- ❖ Switch the feet mid-air as you jump up.
- ❖ Land with opposite feet as you get into a lunge position a second time.

14. Skaters

Primary Muscles Targeted: Quads, Hamstring, and Glutes

How to perform:

- ❖ Stand with your feet hip-width apart and slightly bend knees.
- ❖ Now jump toward the right with your right foot, landing slowly on your right leg ankle and your left leg behind.
- ❖ Quickly, jump towards the left with left foot with right leg behind.

15. Butt Kicks

Primary Muscles Targeted: Glutes and Hamstring

How to perform:

- ❖ Stand with your feet shoulder-width apart.

- ❖ Keep your arms bent towards the side.
- ❖ Now flex your right knee and kick your right heel to your glutes. Bring the right foot down.
- ❖ Now repeat the same with left leg.

16. Corkscrew

Primary Muscles Targeted: Abs and Obliques

How to perform:

- ❖ Lie on your back with your hands just below your lower back for extra support.
- ❖ Keep your navel sucked and legs straight.
- ❖ Lift off the legs from the ground till it is at a right angle to your upper body.
- ❖ Keeping your core tight and legs together, make a complete rotation with your legs.
- ❖ Focus on keeping your abs tight throughout the exercise.

17. Invisible Jump Rope

Primary Muscles Targeted: Calves, Hamstrings and Glutes

How to perform:

- ❖ Jump over an invisible rope by landing lightly on your toes and pushing the ground with the balls of your feet.
- ❖ Make quick, small movements with your wrists alongside.
- ❖ With this exercise, you don't need to jump way too up.
- ❖ Hop no more than 2 inches above the ground.

18. Sprinters Sit Ups

Primary Muscles Targeted: Rectus abdominal and Obliques

How to perform:

- ❖ Begin with a seated position with you arms bent at right and angle and your legs extended in front of you.
- ❖ Now engaging your obliques lift your left leg with left knee and bring right elbow towards the left knee.
- ❖ Get back to starting position and repeat it on the other side.

19. Box Jumps

Primary Muscles Targeted: Hamstring and Glutes

How to perform:

- ❖ Fetch yourself a sturdy box or bench to do this exercise.
- ❖ For the beginners, start off with a box that's mid- calf height and make your way towards higher height boxes from there.
- ❖ Face the box with your feet shoulder width apart.
- ❖ Now bend the knees, send your hips back, swing your arms back, and swing them forward as you land lightly on the box.
- ❖ To return to starting position, step down one foot at a time.

20. Jump Forward Jog Back

Primary Muscles Targeted: Quads, Hamstring, Glutes

How to perform:

- ❖ Stand with your knees slightly bent and your feet hip-width apart.
- ❖ Now swinging both arms back and then forward, jump forward landing lightly on your toes.
- ❖ Now jog backwards to the starting position.

UNIT 2: YOGA FOR HEALTHY LIFE

Principles of Yoga

- ❖ The place for practising yoga should be very neat and clean.
- ❖ Yoga should not be performed after having meals. Morning time is the best for yoga.
- ❖ It is very important that the mind should be in a state of complete concentration.
- ❖ Proper rest should be taken to make body and fresh and alert.
- ❖ Yoga should be performed according to one's own capacity.
- ❖ In case of any ailment the proper advise of the doctor should be taken before performing any asana.

Yoga for Calmness

While our body is at rest, our mind is ever working. We can train our mind and body to stay calm.

Effect of Yoga on Mind

Human mind keeps on wandering. While resting on a bodily plane we are always wandering on the mental plane. Human beings are always apprehensive of the events related to the past, present and the future. However, yoga is the best way to calm down the mind. Even we are doing some static activity like studying a book, working on a computer, etc., our mind is not with us. It keeps on wandering. The result is low productivity and efficiency. It leads to the non-achievement of deadlines. We can't turn off our mind, however yoga postures and yogic breathing exercises (pranayama) help the mind to come to present and restore clarity and alertness.

These are the following ways to calm the mind in Yoga:

- ❖ **Deep breathing:** Sit in a comfortable and meditative pose. Inhale deeply, fully and slowly and then exhale slowly and completely.
- ❖ **Abdominal breathing:** Lie down on your back and then fold legs and knees. Bring them close to the hips, fold the arms around head and start inhalation and exhalation.
- ❖ **Ujjayi breath:** Sit comfortably and then create hiss sound in the throat, while inhaling and exhaling. This is called Ujjayi breath. Try listen to the sound carefully.
- ❖ **Kapalbhati:** Sit in a meditative pose. Now exhale fast and then inhale fast. Repeat this exercise 3 times.

- ❖ **Meditation on Naval and Throat:** Sit in a meditative pose. Close your eyes. Relax the body, focus on breath awareness. Maintain the awareness of throat and naval focusing on each and every breath.

TERM – 2

UNIT 3: ATHLETICS

Track and Field

The history of athletics is very old. The primitive form was practised in Egypt more than 4000 years ago. In Greece it was arranged systematically around 1500 BC. The first recorded organised athletics events at sports festivals are the Ancient Olympic Games in 776 BC in Greece.

Modern track and field events began by the beginning of the 18th century, mostly in the form of running, walking, hurdles, races, jumps and throws. The first professional meet was held at Oxford in 1860. The Modern Olympic Games in Athens in the year 1896 marked a new era for track and field.

I. Track Events

Rules of Track

1. An athlete for track events should report to warming area according to schedule of the event.
2. An athlete should wear proper athletic shoes and spikes.
3. In sprint and middle distance races the athlete is allotted specific lane and is not allowed to change lane during the event.
4. The athlete is not supposed to touch the starting line.
5. The first foul is considered as warning to all athletes by showing a yellow card. Afterwards if an athlete makes a foul he/she is disqualified.

Marking of the Track: Track is an oval place where an athlete competes against time. It consists of two straight lines and one circle (straight lines are joined by two semi circles). A standard track is of 400 m distance with eight to ten lanes. Track can be laid on various types of surfaces like clay, grass, cinder and synthetic, etc.

$$400 \text{ m} = 2 \text{ stright} + \text{circumference of circle } (2\pi r)$$

A. Sprints Races: 100 m, 200m, 400m

Sprints are short distance races which are run with full speed and with maximum strength. Sprint races require fast reaction time, high speed and maximum strength.

B. Middle Distance Races

Middle distance races include the races between 800 m and 1500 m. In such races speed and endurance are required. In these races mostly uniform speed is maintained and the race is won in the end by pulling in full vigour.

C. Long Distance Races

As the name signifies, long distance races cover very long distance. Generally, the distance covered is more than a mile. The races of 3000 m, 5000 m, cross country (20 km) and Marathon (42km 195 m, now fixed as 50 km) are considered as long distance races. In these races endurance counts most. The athlete has to put his energy and endurance to the right use.

D. Hurdle Races

It consists of 100 m (women), 110 m (men) and 400 m (men and women). In hurdle races, the athlete runs in his lane and there are 10 hurdles in each lane. In these races, athletes constantly alternate between sprinting and jumping obstacles. There is a special type of obstacle race which is known as steeplechase. (in this race there are 35 obstacles including 7 water jumps).

In such races, the strides should be uniform. The body should be relaxed throughout the race.

II. Field Events

It consists of jumps and throws: long jump, high jump, triple jump, pole vault, shot put, discus throw, javelin throw and hammer throw.

A. Long Jump

Each competitor makes 3 jumps in an order determined by a draw. Athletes have 1½ minutes to make each jump. The valid jump is counted from the nearest imprint/mark towards scratch line.

B. Triple Jump

Athletes have three attempts for qualifying. The athlete must attempt within 1½ minutes. It is a foul if the athlete begins the attempt after having passed the take-off board or not reaches the landing area at the end of the attempt.

C. High Jump

It is a jumping event in which the athlete tries to clear maximum height with one leg take-off. Athletes have 1% minutes for each attempt. An athlete is eliminated from the competition after three successive failures.

D. Shot put

Shot put is a throwing event. In this a metallic ball is pushed from a throwing circle. The weight for the men is 7.26 kg and for women is 4 kg. Though it is a part of throwing events but it is a push as hand is not taken behind the shoulder.

E. Discus Throw

Discus throw, sport in athletics (track and field) in which a disk-shaped object, known as a discus, is thrown for distance. In modern competition the discus must be thrown from a circle 2.5 metres (8.2 feet) in diameter and fall within a 40° sector marked on the ground from the centre of the circle.

F. Javelin Throw

Javelin throw, athletics (track-and-field) sport of throwing a spear for distance, included in the ancient Greek Olympic Games as one of five events of the pentathlon competition.

The javelin that is used in modern international men's competition is a spear of wood or metal with a sharp metal point. It is constructed in accordance with a detailed set of specifications published by the International Association of Federations (IAAF). Its overall length must be at least 260 cm (102.4 inches) and its weight at least 800 grams (1.8 pounds). The women's javelin is somewhat shorter and lighter-a minimum 220 cm (86.6 inches) long and 600 grams (1.3 pounds) in weight.

UNIT 4: ASANAS TO CONTROL BLOOD PRESSURE

Yoga to Control Blood Pressure

Blood pressure is the force of the blood in the arteries. Blood pumps around the body when our heart beats. It gives us energy and oxygen. However the blood pressure should be proper. Blood pressure more than higher or lower level leads to many health problems. To control blood pressure we can perform the following asanas:

1. Baddha Konasana

Steps:

- ❖ Breathe normally and start flapping like a butterfly by bringing thighs up and down slowly. Sit straight on the floor with erect spine and bend your knees by bringing feet as close as possible. Try to touch the soles of your feet each other.
- ❖ Hold your feet tightly with your hands. Inhale deeply. While exhaling press the thighs and knees down toward the floor by pressing your elbows on thighs or on the knees.
- ❖ Keep breathing normally and start flapping like a butterfly by bringing thighs up and down slowly.

Benefits:

- ❖ Improves blood circulation.
- ❖ It helps to stimulate the abdominal organs, prostate glands, bladder, and kidneys.
- ❖ It acts as a stress reliever.
- ❖ Improves flexibility in the groin and in the hip region and gives a good stretch for inner thighs, groins, and knees.

2. Virasana

Steps:

- ❖ Keep your knees together as you separate your feet to either side until they are about 18 inches apart. This will vary somewhat depending on your size, but basically, you are spreading the feet apart to make room for your butt to come down to the floor between them. Do note that the feet are separating but the knees are staying together.
- ❖ Exhale and lower your butt to sit on the floor between your feet. You may need to manually move your calf muscles out of the way to make this happen.

- ❖ Make sure that you are not sitting on your feet, but rather between them with the tops of your feet on the floor (meaning the toes are not tucked under).
- ❖ Your feet should point straight back, turning neither inward nor outward.
- ❖ Slide your shoulders away from your ears. Rest your hands in your lap.
- ❖ Remain in the pose for one minute or more.
- ❖ Release by pressing your palms into the floor and lifting your butt. Cross your ankles beneath your body and extend your legs into Staff Pose (Dandasana)

Benefits:

- ❖ One of the main benefits of practising Virasana or Hero pose is that it helps in strengthening the Digestive system as its regular practice helps in relieving constipation and other stomach disorders. While practising Virasana or Hero pose, the blood flow is obstructed to the lower part of the body and the blood flow is increased in the stomach and pelvic area which promotes the bowel movement and hence improves digestion.
- ❖ Virasana or The Hero Pose stretches and strengthens the knees, thighs, and ankles on regular practice.
- ❖ Virasana massages the abdominal organs and stimulates the digestive system which in return improves digestion.
- ❖ Virasana or The Hero Pose also helps in getting rid of High Blood Pressure. Virasana helps in getting rid of respiratory ailments like Asthma.
- ❖ On regular practice, Virasana or The Hero Pose helps in improving blood flow in the feet and legs.
- ❖ Virasana or The Hero Pose helps in balancing the mind, increases the power of concentration, allows more awareness of the unconscious realms and induces physical and mental relaxation quickly. The thinking process becomes very clear and precise with regular practice of Virasana.

3. Setu Bandhasana

Steps:

- ❖ Begin the asana by lying flat on your back.
- ❖ Bend your knees and place your feet on the floor hip-width apart. Make sure that your ankles and knees are placed in a straight line.
- ❖ Let your arms rest beside your body, with your palms facing downwards.

- ❖ Inhale, and lift your back (lower, upper, and middle) off the floor. Roll in your shoulders, and make sure your chin touches your chest without you having to move it. Let your shoulders, feet, and arms support your weight.
- ❖ Firm up your buttocks as you tighten them. Make sure your thighs are parallel to each other and the floor.
- ❖ Interlace your fingers and push your hands harder to the ground to lift your torso higher.
- ❖ Hold the posture for at least a minute. Breathe slowly and deeply.
- ❖ Exhale and release the pose.

Benefits:

- ❖ This asana helps to strengthen the muscles of the back. It also helps to relieve the stress trapped in the back.
- ❖ This asana stretches and tones the neck, spine, and chest.
- ❖ Practising this asana reduces depression, stress, and anxiety and calms the brain.
- ❖ The lungs are opened up, and thyroid problems are reduced.
- ❖ This asana also massages the digestive organs, in this way this asana helps to improve digestion.
- ❖ It also aids high blood pressure, sinusitis, asthma, insomnia, and osteoporosis.
- ❖ With regular practice of this asana, blood circulation is improved too.