

FITEDUHUB

Knowledge in Motion

CLASS XI • PHYSICAL EDUCATION (048)

UNIT 10

TRAINING & DOPING IN SPORTS

CBSE 2026-27 | ILLUSTRATED STUDY EDITION



Current CBSE Alignment & Unit Overview

Unit 10 is part of the CBSE Class XI Physical Education (048) curriculum for the 2026–27 academic session. The unit carries 07 marks in the current syllabus. The scope below follows the current CBSE topic list; supporting explanations and examples are added to make the prescribed concepts teachable and exam-ready.

CBSE Prescribed Area	Coverage in this Master
Concept and Principles of Sports Training	Detailed explanation + sports application + visual support + exam practice
Training Load: Over Load, Adaptation and Recovery	Detailed explanation + sports application + visual support + exam practice
Warming-up & Limbering Down - Types, Method & Importance	Detailed explanation + sports application + visual support + exam practice
Concept of Skill, Technique, Tactics & Strategies	Detailed explanation + sports application + visual support + exam practice
Concept of Doping and its disadvantages	Detailed explanation + sports application + visual support + exam practice

Learning Objectives

- Define sports training and explain why planned training is needed for performance and healthy development.
- Explain major principles of training and relate them to progressive, purposeful practice.
- Understand training load, overload, adaptation and recovery as connected concepts.
- Differentiate general and specific warm-up approaches and explain the purpose of limbering down.
- Differentiate skill, technique, tactics and strategies with sport-based examples.
- Explain doping and its disadvantages in terms of health, fairness, ethics and sporting integrity.
- Apply training concepts to simple case studies and identify safer, more effective choices.

Unit Map • Training & Doping



1. Concept and Principles of Sports Training

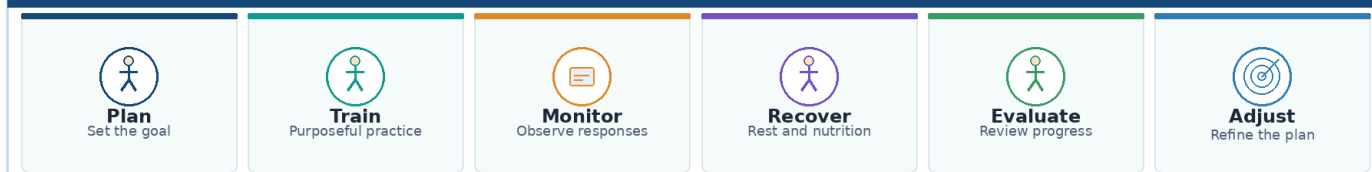
1.1 Meaning of Sports Training

Sports training is a planned, systematic and progressive process of practice and physical preparation designed to improve performance and the capacities required for a particular sport or physical goal. Training includes exercise, skill practice, monitoring, recovery and adjustment.

1.2 Why Training Must Be Planned

- Training goals determine the type and amount of practice required.
- Systematic progression allows the body to adapt without unnecessary extremes.
- Specific practice improves sport-relevant abilities.
- Monitoring and recovery help maintain quality and reduce excessive fatigue.

Sports Training Cycle



1.3 Principles of Training

Principle	Meaning	Example
Specificity	Training should reflect the needs of the target activity or performance quality.	A sprinter needs speed-oriented work in addition to general conditioning.
Progression / overload	Challenge should increase gradually and appropriately as capacity improves.	Increase volume, intensity or complexity step by step rather than abruptly.
Regularity / continuity	Adaptation depends on consistent training rather than isolated sessions.	Follow a realistic weekly routine with planned variation and recovery.
Individualisation	Training should consider the individual's age, training status, goals, constraints and response.	Two teammates may need different loads for the same objective.
Recovery	Restoration is needed between demanding sessions and supports adaptation.	Alternate hard and easier sessions and protect sleep and recovery time.

Principles of Training



2. Training Load: Overload, Adaptation and Recovery

2.1 Training Load

Training load is the overall stress or demand imposed by a training session or programme. It can be considered through variables such as frequency, duration, intensity and exercise volume. In practical training, load should be adjusted according to the athlete's goal and response.

Training Load



2.2 Overload

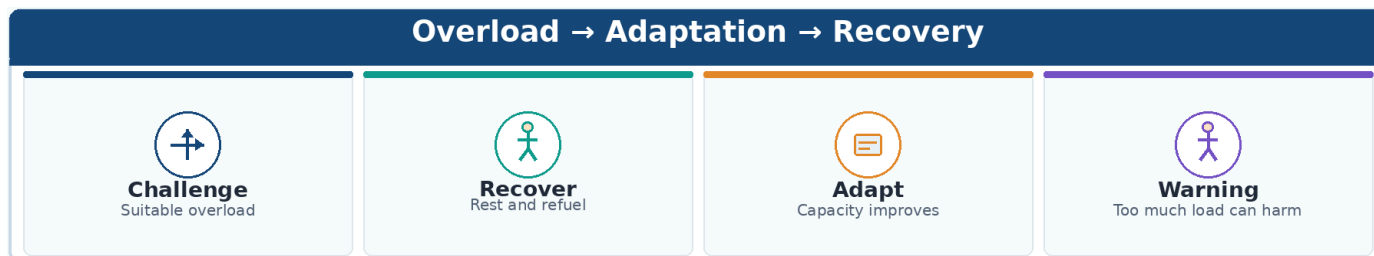
Overload means providing a training stimulus that is greater than the body is accustomed to, within an appropriate and planned range. Overload can involve changes in duration, intensity, frequency, volume, complexity or resistance depending on the goal.

2.3 Adaptation

Adaptation refers to the body's functional response to repeated training exposure. With appropriate training and recovery, systems can become better prepared for the demands imposed on them.

2.4 Recovery

Recovery includes the processes that allow the body and mind to restore and adapt after training. It may include sleep, rest, nutrition, hydration, appropriate low-intensity activity and sensible spacing of demanding sessions.



Warning sign

More training is not automatically better. Persistent fatigue, declining performance, poor sleep, unusual soreness or loss of motivation should prompt review of the training load and recovery plan and, when appropriate, professional assessment.

3. Warming-up and Limbering Down

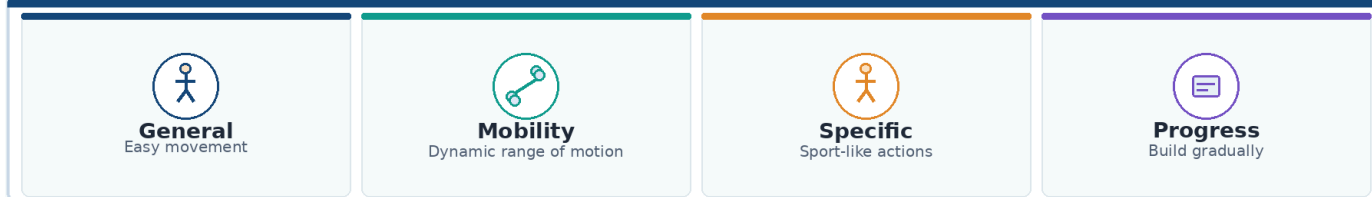
3.1 Warm-up: Meaning and Importance

A warm-up is a planned period of activity before the main exercise or sport session. Its purpose is to prepare the body and mind for the demands of the activity, rehearse movement patterns and gradually increase readiness.

3.2 Types of Warm-up

Type	Description	Example
General warm-up	Whole-body activity that gradually increases physical readiness.	Easy jogging, skipping, mobility movements.
Specific / activity-related warm-up	Movements that resemble the upcoming skill or sport demand.	Progressive passing before football; movement-specific drills before badminton.
Dynamic mobility component	Controlled movements through useful ranges without prolonged static holds.	Leg swings, arm circles, walking lunges in an appropriate sequence.

Warm-up • General to Specific



3.3 Practical Method

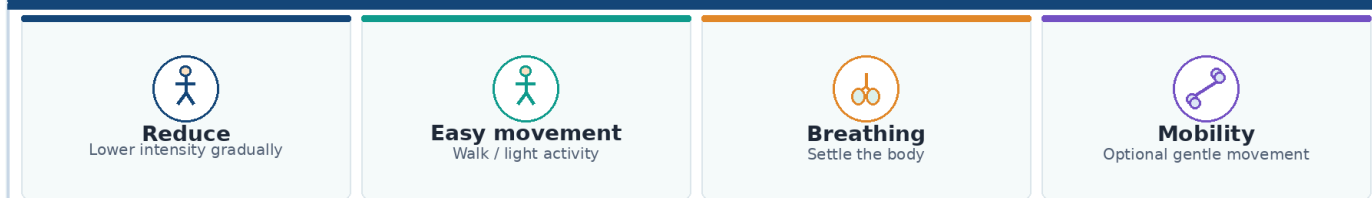
1. Begin at a comfortable intensity.
2. Progressively involve large muscle groups and relevant joints.
3. Add controlled dynamic mobility and movement rehearsal.
4. Progress toward sport-specific actions and competition-like intensity where appropriate.
5. Finish with readiness rather than fatigue.

3.4 Limbering Down

Limbering down is the gradual reduction of activity after the main exercise or sport session. It can help a participant transition from strenuous exercise toward a more relaxed state and provides an opportunity for easy movement, breathing control and reflection.

- Reduce intensity gradually rather than stopping abruptly after strenuous work.
- Use comfortable low-intensity movement for a short period.
- Allow breathing and heart rate to settle progressively.
- Gentle mobility may be included according to the activity and individual needs.
- Use recovery time for hydration, feedback and preparation for the next session.

Limbering Down



4. Skill, Technique, Tactics and Strategies

Term	Meaning	Example in a sport
Skill	An acquired ability to perform a task effectively and consistently.	A player can execute a chest pass accurately under pressure.
Technique	The specific manner or method used to execute a skill.	Hand position, body alignment and follow-through during the pass.
Tactics	Situation-specific actions or decisions used to respond to opponents and game conditions.	Switching play to the open side when pressure is concentrated on one wing.
Strategy	A broader plan that guides how a team or athlete intends to pursue its performance objective.	A match plan that prioritises possession, pressing and controlled transitions.

Skill, Technique, Tactics & Strategy



4.1 How They Connect

Skill is the ability to perform the task; technique is how it is executed; tactics are choices made in changing competitive situations; strategy is the broader plan that organises those choices. The four concepts interact rather than operating as isolated boxes.

5. Doping and its Disadvantages

5.1 Concept of Doping

Doping in sport refers to the use of prohibited substances or methods, including attempts to gain an unfair performance advantage, in violation of anti-doping rules. Anti-doping education emphasises clean sport, athlete responsibility, health and sporting integrity.

5.2 Disadvantages of Doping

Area	Potential disadvantage
Health	Prohibited substances or methods can carry serious health risks, depending on the substance or practice.
Fairness	Doping can create an unfair advantage and undermine equal competition.
Sporting integrity	It violates rules and weakens trust in performances and competition.
Legal / sporting consequences	Anti-doping violations can lead to sanctions under the applicable rules.
Personal and team impact	Violations can affect reputation, eligibility and teammates or support staff.

Doping • Health, Fairness & Integrity



Exam focus

For Class XI, concentrate on the concept of doping and its disadvantages. Do not memorise unsupported lists of substances from random sources; always use the applicable current anti-doping rules when specific prohibited lists are required.

Assessment Practice

MCQs

1. Sports training is best described as:

- A. Random activity only
- B. Planned and systematic exercise/practice to improve performance and physical qualities
- C. Rest alone
- D. Competition without preparation

2. Specificity means training should:

- A. Avoid sport-specific skills
- B. Be identical for everyone
- C. Reflect the demands of the activity or performance goal
- D. Use maximum load daily

3. Progressive overload means:

- A. Ignoring readiness
- B. Doubling training every day
- C. Removing recovery
- D. Gradually increasing a training challenge within appropriate limits

4. Adaptation is:

- A. The body's response to training that can improve capacity
- B. A tactic
- C. A type of warm-up
- D. A rule of fair play

5. Recovery is important because it:

- A. Makes training unnecessary
- B. Allows restoration and adaptation after training stress
- C. Always reduces fitness
- D. Replaces sleep

6. A warm-up is mainly used to:

- A. Replace skill practice
- B. Exhaust the athlete
- C. Prepare the body and mind for activity
- D. Guarantee injury prevention

7. Limbering down occurs:

- A. Instead of warm-up
- B. Before every meal
- C. Only during competition
- D. After the main activity

8. A skill is best understood as:

- A. An ability to perform a task effectively
- B. A single fitness score
- C. A full season plan
- D. A prohibited method

9. Technique refers mainly to:

- A. Team selection
- B. The manner or method used to execute a skill
- C. A training facility
- D. A doping test

10. Tactics are generally:

- A. Recovery exercises
- B. Long-term season structure only
- C. Planned actions used within competition to respond to opponents or situations
- D. Body measurements

11. A strategy is generally:

- A. A warm-up stretch
- B. A single joint movement
- C. A measurement unit
- D. A broader plan guiding how objectives will be pursued

12. Doping in sport is associated with:

- A. Use of prohibited substances or methods to gain an unfair performance advantage
- B. Normal nutrition
- C. Good recovery
- D. Skill learning

13. A warning sign of excessive training load can be:

- A. Consistent recovery
- B. Persistent fatigue and declining performance
- C. Improved readiness only
- D. Stable motivation always

14. General warm-up usually includes:

- A. Only static sitting
- B. Maximum intensity sprints only
- C. Whole-body activity that progressively prepares the participant
- D. No movement

15. Sporting integrity includes:

- A. Ignoring safety
- B. Winning at any cost
- C. Hiding prohibited use
- D. Fairness, health, responsibility and respect for rules

Assertion–Reason

1. Assertion: Sports training should be planned and systematic.

Reason: Training goals, load, progression and recovery need to be organised rather than left entirely to chance.

Answer: Both true and Reason explains Assertion.

2. Assertion: Progressive overload means increasing training challenge within appropriate limits.

Reason: Training stress that is increased gradually can support adaptation when recovery is adequate.

Answer: Both true and Reason explains Assertion.

3. Assertion: Recovery is part of the training process.

Reason: Adaptation and restoration depend on sufficient recovery after training stress.

Answer: Both true and Reason explains Assertion.

4. Assertion: A warm-up prepares a participant for the demands of activity.

Reason: Progressive activity and movement rehearsal can raise readiness before the main session.

Answer: Both true and Reason explains Assertion.

5. Assertion: Skill, technique, tactics and strategy are interchangeable terms.

Reason: They refer to different levels of ability, execution and planning in sport.

Answer: Assertion false; Reason true.

6. Assertion: Doping can undermine sporting integrity.

Reason: Prohibited substances or methods may create an unfair advantage and violate anti-doping rules.

Answer: Both true and Reason explains Assertion.

Match the Following

Column A	Column B
1. Overload	A. Broader competitive plan
2. Adaptation	B. Training challenge
3. Recovery	C. Response to training
4. Tactics	D. Restoration
5. Strategy	E. Situation-specific competitive action

Fill in the Blanks

1. Planned exercise used to improve performance is called sports _____.
2. A gradual increase in training challenge is called progressive _____.
3. The body's response to training stress that can improve capacity is called _____.
4. Time or methods used to restore the body after training are part of _____.
5. Preparatory activity before main exercise is the _____.
6. Gradual reduction of exercise intensity after activity is part of _____ down.
7. Competitive action chosen for a specific situation is a _____.
8. Use of prohibited substances or methods for performance advantage is called _____.

2-Mark Questions

1. Define sports training.
2. State two principles of training.
3. What is overload?
4. What is adaptation?
5. What is recovery?
6. Define warm-up.
7. Define technique.
8. Differentiate tactics and strategy.
9. What is limbering down?
10. Define doping in sport.

3-Mark Questions

1. Explain adaptation, overload and recovery.
2. Differentiate skill and technique.
3. Explain the purpose of warm-up.
4. Explain the purpose of limbering down.
5. State three principles of sports training.
6. Explain training load with two variables.
7. Differentiate tactics and strategy.
8. State three disadvantages of doping.

4-Mark Questions

1. Differentiate skill, technique, tactics and strategy.
2. Explain training load and its major dimensions.

3. Explain warming-up and limbering down with methods and importance.
4. Discuss specificity, progression and individualisation.
5. Explain overload and adaptation.
6. Explain why recovery is essential to training.
7. Describe general and specific warm-up methods.
8. Explain doping from health and sporting integrity perspectives.

5-Mark Questions

1. Discuss the principles of sports training with a practical example.
2. Explain doping and its disadvantages in relation to health, fairness and integrity.
3. Discuss the relationship between training load, overload, adaptation and recovery.
4. Explain how a well-designed warm-up and limbering-down routine fits into training.
5. Discuss skill, technique, tactics and strategy using one sport example.
6. Explain why individualisation and progression are essential in training.
7. Describe how clean sport supports athlete health and sporting integrity.

Case-Based / Competency Questions

Case 1

A runner increases training volume suddenly and then reports persistent fatigue and reduced performance. Use overload, adaptation and recovery to explain what should be considered.

Answer guidance: Expected: overload must be progressive and appropriate; adaptation requires recovery; excessive load with inadequate recovery may impair performance.

Case 2

A football team performs a general warm-up followed by movement-specific drills. Explain why both can be useful.

Answer guidance: Expected: general preparation raises readiness; specific work rehearses movements and demands of the upcoming activity.

Case 3

A coach asks for a player's skill, technique, tactic and strategy using one game situation. Give a clear distinction.

Answer guidance: Expected: skill = ability/task; technique = execution method; tactic = situation-specific competitive action; strategy = broader plan.

Case 4

A student thinks recovery means doing nothing for several days after every session. Correct the idea.

Answer guidance: Expected: recovery is a planned process and may include rest, sleep, nutrition, hydration and appropriate low-intensity activity depending on context; it is individualised.

Case 5

A learner asks why doping is a problem if it improves performance. Explain from health, fairness and integrity perspectives.

Answer guidance: Expected: potential health harms, unfair advantage, violation of rules/values, damage to trust and sporting integrity.

Case 6

A training programme is identical for all team members even though their needs differ. Which principle is being overlooked?
 Answer guidance: Expected: individualisation; also specificity and appropriate progression may need consideration.

Visual / Concept-Based Practice

Visual Question 1 • Training Cycle



Visual Question 2 • Sport Decision



Visual Question 3 • Session Sequence



Quick Revision

Concept	Quick recall
Training	Planned, systematic practice to improve performance/capacity.
Principles	Specificity, progression/overload, regularity, individualisation and recovery.
Load	Training stress/demand that should be monitored.
Adaptation	Response to appropriate training stress.
Recovery	Processes that restore and support adaptation.
Warm-up	Preparatory activity before main exercise.
Skill/Technique/Tactics/Strategy	Ability / execution method / situation action / broader plan.
Doping	Use of prohibited substances or methods for performance advantage; harmful to health/fair play/integrity.