Khel Yatra

Physical Education and Well-being

Grade 8

विद्यया ऽमृतमश्नुते

एन सी ई आर टी
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Textbook for Grade 8

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Foreword

The National Education Policy 2020 envisages a system of education in the country that is rooted in Indian ethos and its civilisational accomplishments in all domains of human endeavour and knowledge, while at the same time preparing students to constructively engage with the prospects and challenges of the twenty-first century. The basis for this aspirational vision has been well laid out by the *National Curriculum Framework for School Education* (NCF-SE) 2023 across curricular areas at all stages. Having nurtured students' inherent abilities, touching upon all the five planes of human existence, the *pañchakośas* in the Foundational and the Preparatory Stages have paved the way for the progression of their learning further at the Middle Stage. Thus, the Middle Stage acts as a bridge between the Preparatory and the Secondary Stages, spanning three years from Grade 6 to Grade 8.

The NCF-SE 2023, at the Middle Stage, aims to equip students with the skills that are needed to grow as they advance in lives. It endeavours to enhance their analytical, descriptive, and narrative capabilities, and to prepare them for the challenges and opportunities that await them. A diverse curriculum, covering nine subjects in three languages—including at least two languages native to India—Science, Mathematics, Social Sciences, Art Education, Physical Education and Well-being, and Vocational Education promotes their holistic development.

Such a transformative learning culture requires certain essential conditions. One of them is to have appropriate textbooks in different curricular areas as these textbooks will play a central role in mediating between content and pedagogy—a role that will strike a judicious balance between direct instruction and opportunities for exploration and inquiry. Among the other conditions, classroom arrangement and teacher preparation are crucial to establish conceptual connections both within and across curricular areas.

The National Council of Educational Research and Training, on its part, is committed in providing students with such high-quality textbooks. Various Curricular Area Groups, which have been constituted for this purpose, comprising notable subject-experts, pedagogues, and practising teachers as their members, have made all possible efforts to develop such textbooks. The book for Physical education and well-being, titled *Khel Yatra* for Grade 8, is meticulously designed to develop motor skills and engage children in the team sports of Athletics, Table Tennis and Volleyball. Age-specific aspects of Yoga are designed to lay the foundation for healthy living. The textbook aligns with the competencies included in the NCF-SE 2023 for this stage.

Khel Yatra emphasises the importance of physical activity and the values and dispositions essential for life. It incorporates cross-cutting themes, such as inclusion, gender equality, and cultural rootedness.

The content and activities are designed to encourage peer group learning, and enrich the educational experience for both students and teachers. While this textbook is valuable, children should also explore interesting local games and play with friends. This book is not only useful for school learning, but is a valuable resource for parents and community.

However, in addition to this textbook, students at this stage should also be encouraged to explore various other learning resources. School libraries play a crucial role in making such resources available. Besides, the role of parents and teachers will also be invaluable in guiding and encouraging students to do so.

With this, I express my gratitude to all those who have been involved in the development of this textbook, and hope that it will meet the expectations of all stakeholders. At the same time, I also invite suggestions and feedback from all its users for further improvement in the coming years.

Dinesh Prasad Saklani

Director

National Council of Educational
Research and Training

New Delhi
May 2025

About the Book

The *National Curriculum Framework for School Education 2023* (NCF-SE 2023) recognises the criticality of the health and wellbeing of individuals as a key factor for success in all aspects of life. Considering the focus on holistic well-being, NCF-SE has mandated Physical Education and Well-being as a core curricular area for all stages of school education. To help the teachers and students achieve curricular goals of Physical Education and Well-being, for the first time a textbook has been designed for Grade 8. This book enables students to experience the joy of playing, explore diverse physical activities, practice fitness skills, learn basic sports skills, and immerse in the world of yoga. Sports and physical activities teach important motor skills, socio-emotional awareness and regulation, associated cognitive abilities, as well as the values of self-discipline, hard work, teamwork, and a gracious acceptance of one's strengths and vulnerabilities.

To achieve the goals of fitness, sports and holistic well-being, the Grade 8 textbook is designed to have the following six units.

1. Foundations of Physical Education and Well-being
2. Physical and Motor Fitness
3. Fundamental Skills of Athletics
4. Fundamental Skills of Table Tennis
5. Fundamental Skills of Volleyball
6. Yoga

In Unit 1, students explore the connection between physical education (PE) and well-being, emphasising its impact on personal and social behaviour. Through playing games and engaging in discussions, students will understand the importance of living a healthy lifestyle;

concepts of Physics and Biology in a playful manner, and how physical activity adds to their overall enjoyment and success. Students will also learn about the safety measures to minimise the risk of injuries and create a healthy environment for the students.

In Unit 2, students learn different fitness components like endurance, strength, flexibility, and balance. The main aim is to understand how each of these components contributes to overall health.

Units 3, 4 and 5 focus on learning new games. Athletics is introduced in Unit 3, Table Tennis in Unit 4 and Volleyball in Unit 5. Through interactive sessions and group exercises, students will discover the excitement of sports and health advantages of physical activities. The emphasis will be on inclusivity, team cohesion, and enjoyment of movement.

In the last unit, that is, Unit 6 students immerse in the holistic nature of yoga. They learn about *Yama* (social discipline) and *Niyama* (Personal discipline) to inculcate healthy habits for positive behavior. Systematic practice of various *yogāsanas* starting with *Sūkṣhma Vyāyāma* (loosening exercises), preparatory breathing practices and step-by-step performance of each *āsana* helps our body to be flexible, strong, balanced and disease free. Various techniques of *Prāṇāyāma* strengthen the lungs, improve functioning of major systems of our body, calm down the mind, improve concentration and help in achieving overall harmony and well-being. To explore the world within us and experience deep sense of peace, tranquility and bliss, students learn different techniques of *Dhāraṇā* (single pointed concentration) and *Dhyāna* (meditation). Learning various yogic practices lays the foundation for a long and healthy life.

In this book, apart from learning the games and physical activities, students will learn to follow rules, understand the importance of safe practices and fair play, work harmoniously in groups, treat each other with courtesy and respect, as well as, help each other, and experience the joy of playing together. Inculcation of these values and dispositions will partly happen while children are engaged in the physical activities or games and partly, they will be reinforced

during circle time after the game. Sufficient time must be given for circle time during the Physical Education and Well-being periods.

Structure and Flow of Classes

Refer to the previous class' textbook for suggestive session plan. As per NCF-SE 2023 recommendations 90 hours are allocated to physical education and well-being. So, 115–120 periods of 40 minutes each for activities and classes along with 15-20 periods for formative and summative assessment have been allocated. Principals and physical education teachers have the liberty to plan classes keeping in mind equal emphasis and distribution of all units. Since assessment depicting progression in the motor fitness, sport-specific skills, yoga and psychosocial domain, session-ending assessment procedure will remain the same as formative assessment. Suggestive timetable assumes at least 5 periods of 40 minute each, per week. NCF-SE recommends allocating block period (2 periods together) for physical education and well-being. If it is not possible to allocate two block periods and one single period every week, it is necessary to design single periods with different focus to ensure sufficient time for activities, game and circle time.

Suggestions are given below for two different scenarios of timetable.

- Scenario 1 – Five single periods per week.
- Scenario 2 – Two block periods for Units 1 to 5 and single period for yoga.

Scenario 1: Three different types of sessions have been visualised to effectively use the limited time in each period and achieve the learning outcomes.

- Type 1: Maximises game practice.
- Type 2: Maximises circle time after play to provide sufficient time for discussing cognitive and socio-emotional aspects.
- Type 3: Maximises gamified drills to focus on one specific skill.

A sample time allocation for a 40-minute duration is given below for all types.

Period/Session Types				
Type 1	Warm-up – Preferably gamified	Game time	Cool-down	Circle time
Time in Minutes	5	25	5	5
Type 2	Warm-up – Preferably gamified	Game time	Cool-down	Circle time
Time in Minutes	5	15	5	15
Type 3	Warm-up – Preferably gamified	Gamified drills/ Mini games	Cool-down	Circle time
Time in Minutes	5	25	5	5

Scenario 2: (Highly recommended) – A block period of 80 minutes can effectively maximize game practice, drills and circle time. Two types of sessions can be planned with block periods.

- Type 4: Maximises game time and drills.
- Type 5: Maximises game time.

Type 4

Block Period	Warm-up – Preferably gamified	Game time	Gamified drills/ Mini games	Cool-down	Circle time
Time in Minutes	5	30	20	5	20

Gamified drill is a mini game played between teams to target specific skills. Pure drills are not recommended at this stage.

Or

Type 5

Block Period	Warm-up – Preferably gamified	Game time Play 2 games	Cool-down	Circle time
Time in Minutes	5	50	5	20

Instructions for Teachers

For joyful experience, safety of children and effective development of competencies, teachers may follow the instructions given below:

- Ensure adequate play area and that there are no obstructions in the play area.
- For group activities, mark the area into smaller blocks to prevent students from running into each other.
- While dividing the teams, make sure that the divison is fair and balanced in terms of bodyweight, height and skills required for the activity.
- Ensure that a first aid kit is available and accessible.
- Ensure that students are treated with respect and they feel emotionally and socially safe.
- Provide regular encouragement and support to all the students.
- Ensure students have access to fair redressal of grievances during the Physical Education period.
- Encourage students to be aware of their surroundings while playing.
- Instruct the students not to aim at the opponent.
- Encourage the students to be careful while pushing or pulling the opponent in the activity.
- Ensure that students do proper warm-up and cool-down exercises.
- Encourage them to create their own routines.
- Provide opportunities to students for interactions before, during and after the class.

- Introduce sports skills gradually. Complexity can be increased by playing mini versions of the sport gradually building individual capacities such as, observation, reflection, emotional regulation, expanding spatial awareness and peripheral vision, and making quick judgements based on gameplay.
- Discuss social capacities such as, effective communication, collective decision making, and working together towards a common goal, during circle time and at relevant moments in the sport.
- Discuss the concepts of Physics such as, conduction, motion, etc. and concepts of Biology such as breathing, muscles, neuro muscular coordination, muscle adaptation in a playful manner through physical activities.
- Encourage students to take more responsibility for building a culture of inclusive sports at school. Help them to play an active role in ensuring all students feel safe, motivated, and encouraged to play.

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- irrespective of religion, race, caste, sex or place of birth;
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- by abolition of untouchability and titles.

Right to Freedom

- of expression, assembly, association, movement, residence and profession;
- of certain protections in respect of conviction for offences;
- of protection of life and personal liberty;
- of free and compulsory education for children between the age of six and fourteen years;
- of protection against arrest and detention in certain cases.

Right against Exploitation

- for prohibition of traffic in human beings and forced labour;
- for prohibition of employment of children in hazardous jobs.

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- freedom of conscience and free profession, practice and propagation of religion;
- freedom to manage religious affairs;
- freedom as to payment of taxes for promotion of any particular religion;
- freedom as to attendance at religious instruction or religious worship in certain educational institutions.

Cultural and Educational Rights

- for protection of interests of minorities;
- for minorities to establish and administer educational institutions;
- saving of certain Laws 31A–31D.

Right to Constitutional Remedies

- by issuance of directions or orders or writs by the Supreme Court and High Courts for enforcement of these Fundamental Rights.

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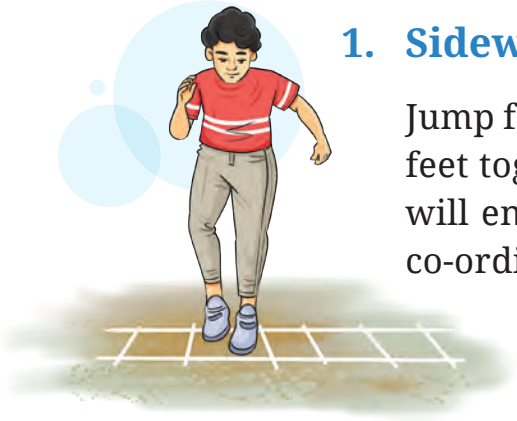
Warm-up and Cool-down

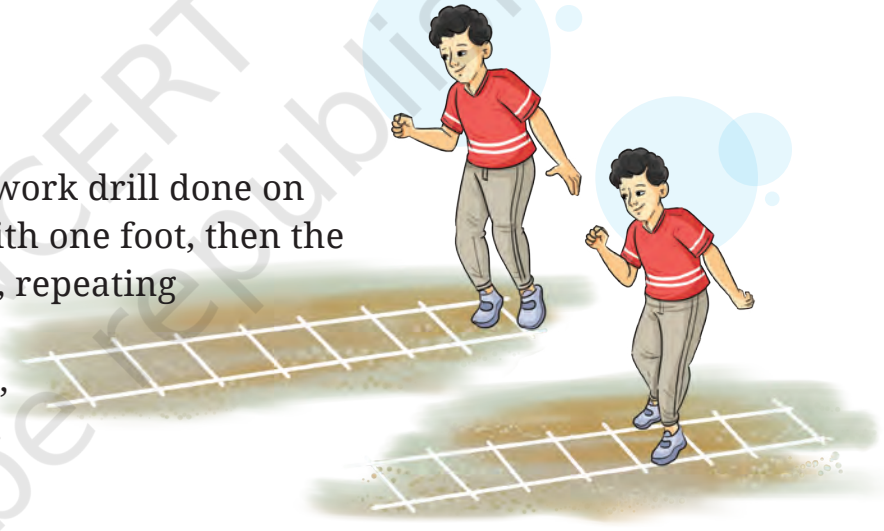


1. Sideways Hopping

Jump from side to side over a line or a cone with both feet together engaging the core and lower body. This will enhance explosive strength and neuromuscular co-ordination.

2. Lateral Shuffle

Lateral shuffle is a fast footwork drill done on an agility ladder. Step in with one foot, then the other, and step out laterally, repeating a shuffle pattern.
This improves coordination, speed, and sense of rhythm.



3. Skiers

With feet together, jump from side to side as if skiing, keeping knees slightly bent. This targets lower body explosiveness and cardiovascular endurance.

4. High Knee Jump with Object

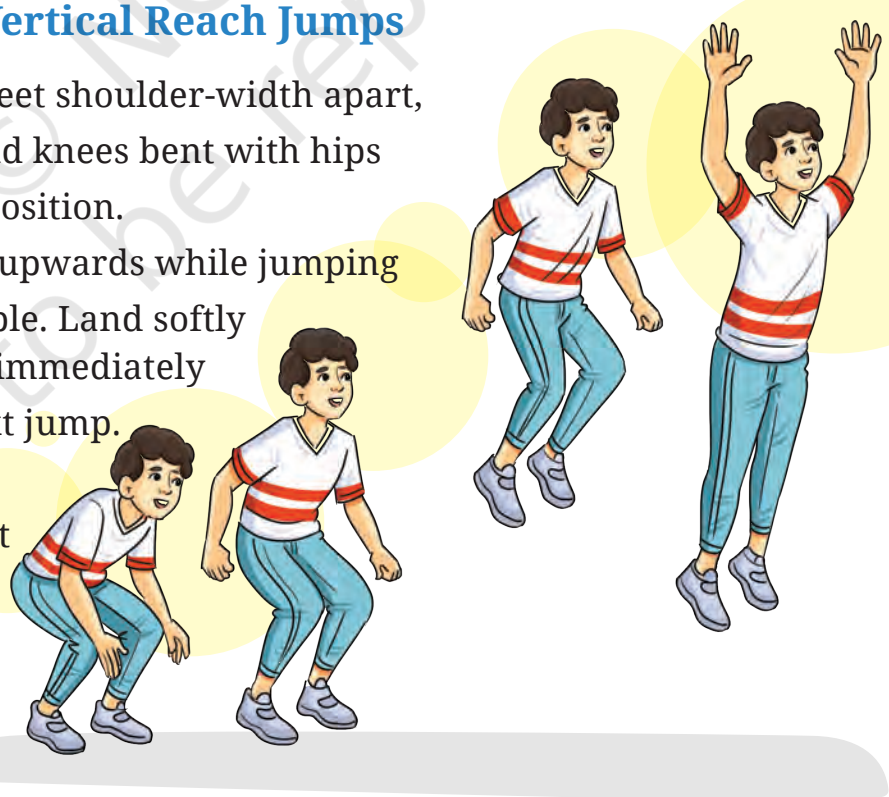
Stand tall with feet hip-width apart. Hold a small object in front of the chest using both hands as shown in the figure. Begin performing high knees, lifting each knee toward the chest. Aim to tap both knees to the object alternatively. This engages the core muscles. Avoid leaning back or swinging the torso.

5. Seated Ball Toss with Partner

Start with both partners seated facing each other with their knees bent in front. The first partner holds a ball with both hands and tosses it over to the second partner. The second partner catches the ball and throws it back to the first partner. They perform alternate tosses.

6. Progressive Vertical Reach Jumps

Stand tall with feet shoulder-width apart, arms relaxed and knees bent with hips in a mid-squat position.
Swing the arms upwards while jumping as high as possible. Land softly on the toes and immediately perform the next jump. This helps in the development of explosive strength.

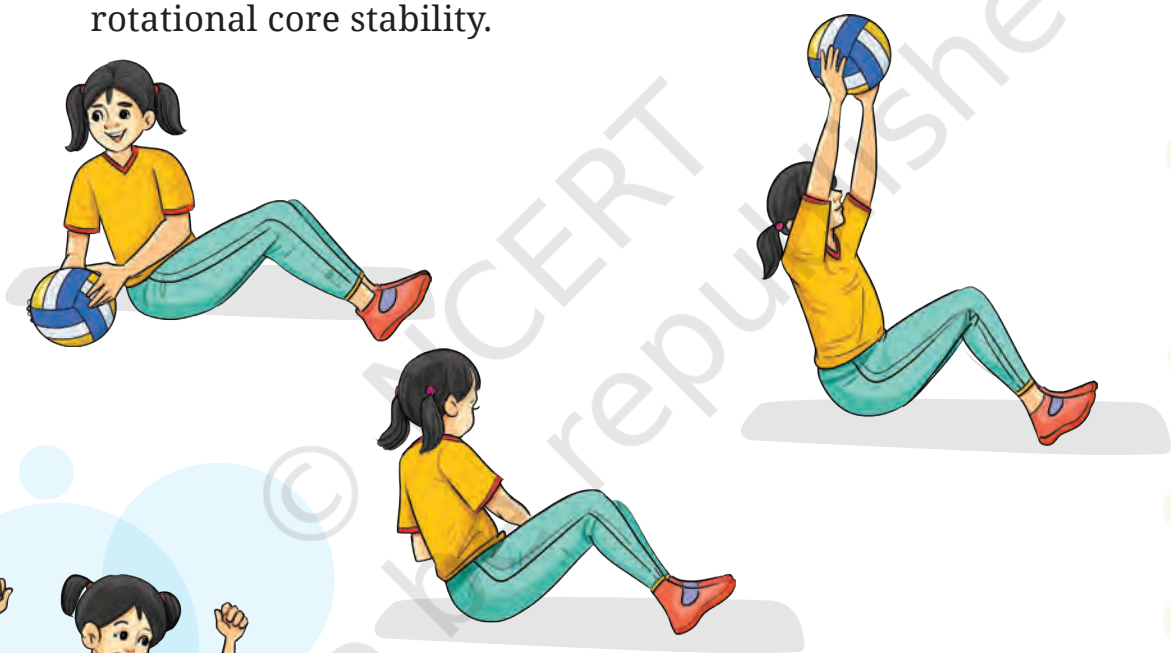


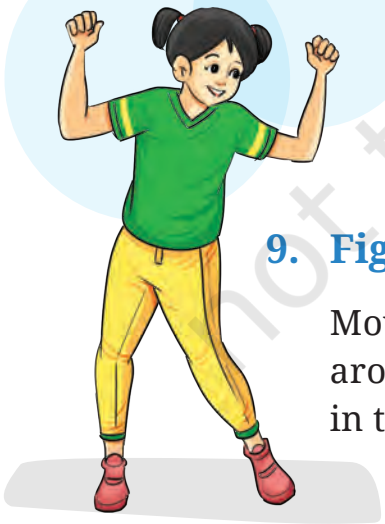
7. Shuttle Run

A shuttle run is a drill in which a person runs to a point, touches or reaches an object, and then returns. This improves cardiovascular fitness, agility, and reaction time.

8. Twist with Ball

In a seated V-position as shown in the figure below, hold a weighted ball and twist the torso to tap the ball on each side. This strengthens abdominal muscles and enhances rotational core stability.



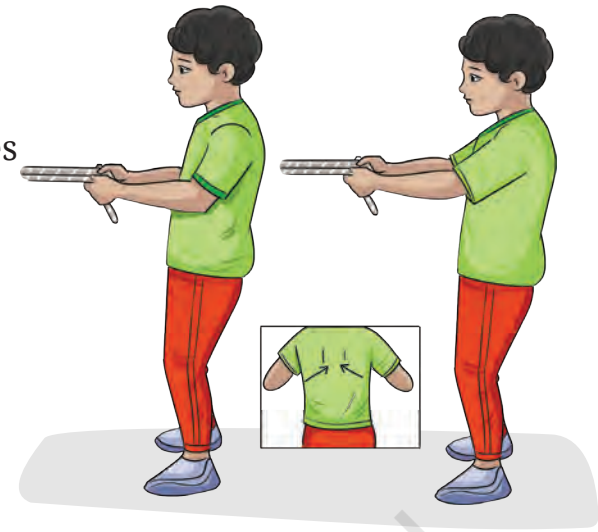


9. Figure-8 Waist Mobility Drill

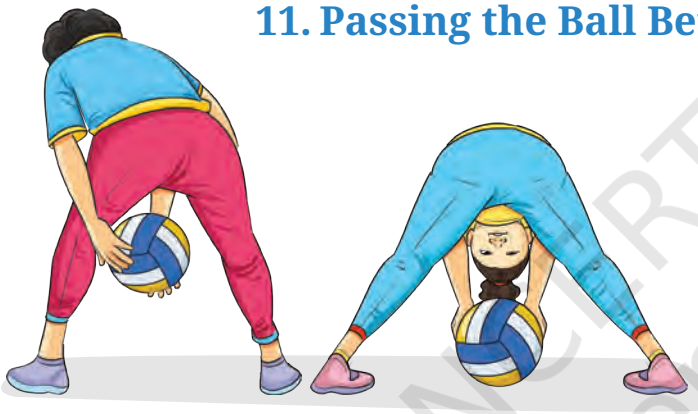
Move a ball or an object in a figure-8 pattern around the waist. This promotes dynamic mobility in the trunk and improves flexibility.

10. Scapular Retraction

Stand and squeeze the shoulder blades together without lifting the shoulders with the use of resistance, such as resistance bands or towels as show in the figure. This strengthens the upper back muscles.



11. Passing the Ball Between the Knees



Stand and pass a ball around and between the knees in a controlled pattern. This improves coordination, core engagement, and hip mobility.

12. Star with Cloth

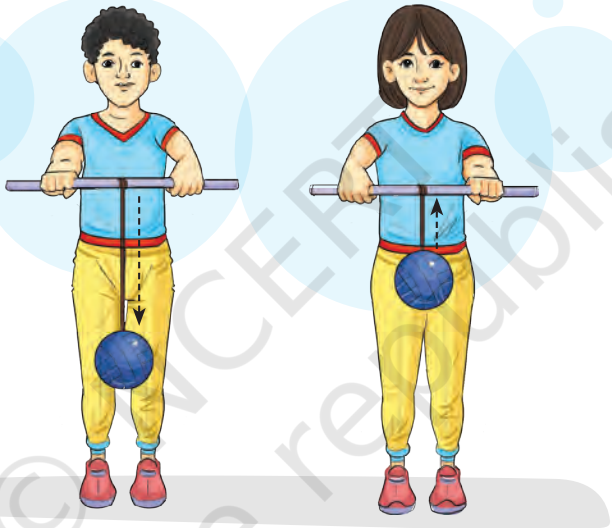
Place a cloth or a marker at each point of an imaginary star on the floor. Step or reach at each point using legs or hands. This enhances balance, and motor control.

13. Neck Exercise with a Cloth

Use a cloth for gentle resistance around the head and perform slow neck movements in various directions. This strengthens the neck muscles.

14. Resistive Wrist Exercises

Use a band or an object to perform wrist flexion and extensions along with radial or ulna deviation against resistance (as shown in the figure). This helps to develop forearm and wrist strength.



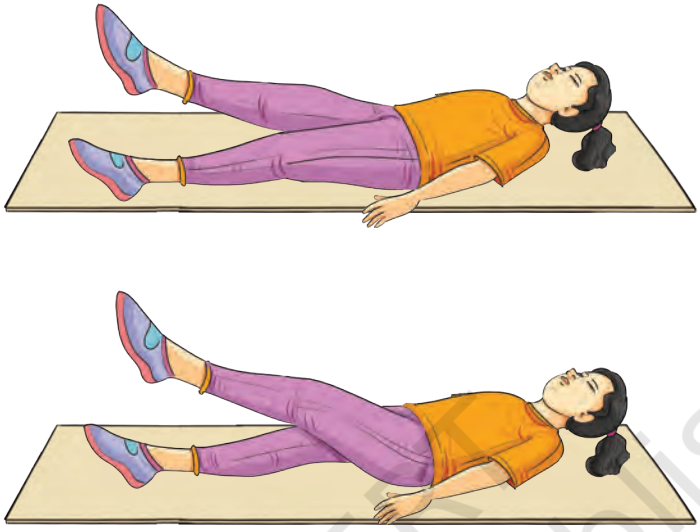
15. Perturbation

This is a partner activity in which a Partner B will stand behind a Partner A, as shown in the figure. Partner B will apply an external force such as a gentle push (a rough push may result in injury) in all the directions, in a step-by-step manner. Partner A will try to hold their position. This enhances proprioception (sense of joint), neuromuscular control and balance.

A B

16. Supine Kicks

Lie on the back, lift legs slightly off the ground, and perform flutter kicks. This activates the lower abdominal muscles and improves musculoskeletal endurance.

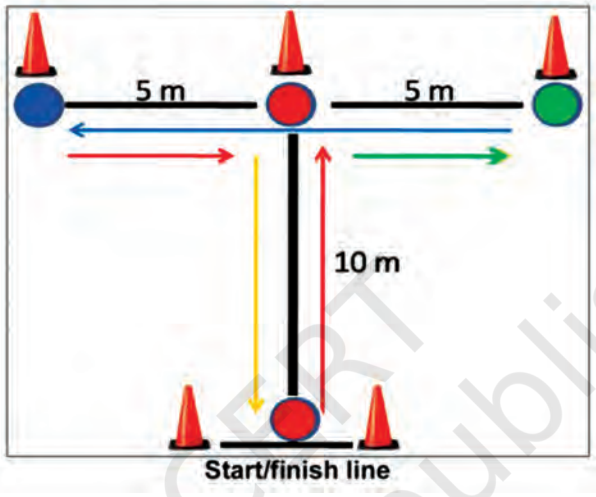


Activity

In the previous classes, you have learned about different forms of exercise. Recall them, and create your own warm-up circuit and cool-down. Also enlist or discuss the benefits and major muscles involved. Also, ponder on when not to do warm-up and cool-down and why?

Annexure

T-Test for Agility (Fitness Test Procedure)



Purpose

The **T-Test** measures **agility**, **speed**, **and body control**, which are important for sports and overall fitness.

Equipment Needed

- Four cones or markers
- A stopwatch
- A flat surface (like a gym floor or open field)

Set-up

1. Place the cones in a T-shape as follows:
   - Cone A (starting point)
   - Cone B (10 meters straight ahead of A)
   - Cone C (5 meters to the left of B)
   - Cone D (5 meters to the right of B)

Procedure

1. Start at Cone A in a ready position.
2. Sprint forward to Cone B and touch it with your right hand.
3. Side-shuffle left to Cone C and touch it with your left hand.
4. Side-shuffle right to Cone D and touch it with your right hand.
5. Side-shuffle back to Cone B and touch it again.
6. Run backward to Cone A as fast as possible.
7. Stop the timer when the participant crosses Cone A.

Scoring

- Record the time (in seconds) taken to complete the test.
- Faster times indicate better agility.

Guidelines for Accuracy

- Keep feet parallel during side shuffles.
- Ensure proper hand touches at each cone.
- Perform 3 trials and take the best time.

Cardiovascular Endurance

Meter Run/Walk Test

The 600- metre Run/Walk Test measures cardiovascular endurance and assesses how well a person can sustain moderate to high-intensity activity over a short distance.

Equipment Needed

- Stopwatch
- Measuring tape (if the track is not pre-marked)
- Flat running surface (track or open field)
- Cones or markers (to indicate start and finish points)

Procedure

1. Warm-up: Perform 5-10 minutes of light jogging and stretching.

2. Starting Position: Stand behind the start line in a ready position.
3. Go! Start running or walking as fast as possible when the instructor gives the signal.
4. Maintain a steady pace and try to complete the 600 meters without stopping.
5. Finish Line: Stop the timer as soon as the participant crosses the finish line.
6. Record the total time taken to complete the 600 meters.

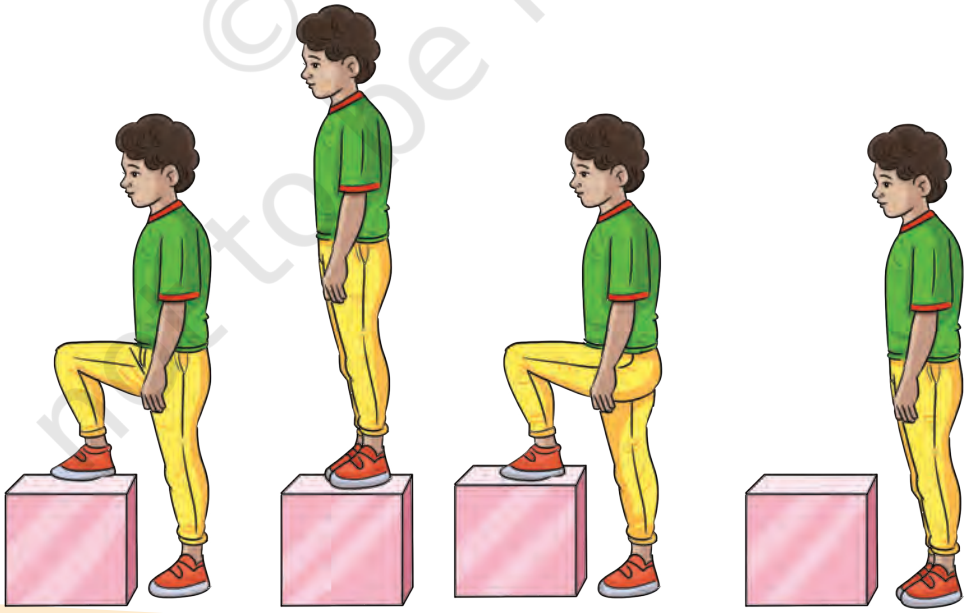
Scoring

- The time is recorded in minutes and seconds.
- Faster times indicate better endurance.
- Compare improvement over time instead of using fixed benchmarks.

Guidelines for Accuracy

- Encourage steady pacing—don't sprint too fast at the start.
- Use the same track and conditions for retests to ensure consistency.

3-Minute Step Test



Purpose

The 3-Minute Step Test measures cardiovascular endurance by evaluating how quickly the heart recovers after exercise.

Equipment Needed

- A 12-inch (30 cm) step or bench
- Stopwatch
- Metronome or music with a 96 beats-per-minute (bpm) rhythm
- Heart rate monitor (optional) or manual pulse counting

Procedure

1. Warm-up: Perform light stretching and jogging for 5 minutes.
2. Step Pattern
   - Step up with one foot.
   - Step up with the other foot.
   - Step down with one foot.
   - Step down with the other foot.
   - Maintain a steady up-up-down-down rhythm.
3. Step to the Beat
   - The pace should be 96 steps per minute (24 complete steps per minute).
   - Continue stepping for 3 minutes without stopping.
4. After 3 Minutes
   - Sit down immediately.
   - Wait 5 seconds, then measure your pulse for 1 full minute.
   - Count beats at the wrist (radial artery) or neck (carotid artery).
5. Record your heart rate (beats per minute).

Scoring

- Lower heart rates indicate better cardiovascular fitness.
- Compare results with previous tests to track improvement.

Guidelines for Accuracy

- Use a consistent stepping speed.
- No extra movements—keep the upper body relaxed.
- Use the same step height for all tests.
- Ensure proper posture and breathing throughout.

Strength & Muscular Endurance

Push-Ups Test (Maximum Reps in 1 Minute)

Purpose

The Push-Up Test measures upper body strength and endurance, focusing on the chest, shoulders, and triceps.

Equipment Needed

- Flat surface (gym floor or mat for comfort)
- Stopwatch
- Partner or instructor to count reps and check form

Procedure

1. Starting Position
   - Place hands shoulder-width apart on the floor.
   - Keep your body straight from head to heels.
   - Feet should be together or slightly apart.
2. Performing the Push-Up
   - Lower your chest until it's about 90 degrees at the elbows or until it nearly touches the ground.

- Push back up to full arm extension.
- Keep a steady pace—no stopping!

3. Counting Reps
   - Only correct form counts.
   - If the body sags or hips rise too much, that rep does not count.
4. Test Duration
   - Perform as many push-ups as possible in 1 minute.

Scoring

- Record the total number of correct push-ups.
- Compare results over time to track improvement.

Guidelines for Accuracy

- No faulty movements—only full push-ups count!
- Keep body straight (avoid sagging or bending knees).
- Use the same testing method for all students (standard push-up or modified knee push-up for those who need it).

Squat Test (Maximum Reps in 1 Minute)

Purpose

The Squat Test measures lower body strength and endurance, targeting the quadriceps, hamstrings, glutes, and core.

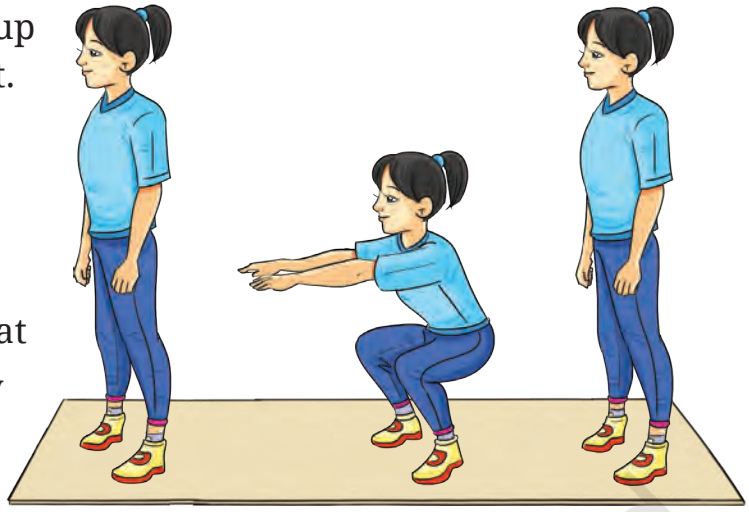
Equipment Needed

- Flat surface (gym floor or mat for comfort)
- Stopwatch
- Partner or instructor to count reps and check form

Procedure

1. Starting Position
   - Stand with feet shoulder-width apart.

- Keep your chest up and back straight.
- Hands can be on hips or extended forward for balance.



2. Performing the Squat
   - Lower your body until thighs are parallel to the ground (90-degree angle at knees).
   - Keep knees aligned with toes (avoid knees collapsing inward).
   - Push back up to the starting position.
   - Maintain a steady rhythm—no pausing!
3. Counting Reps
   - Only correct squats count.
   - If depth is too shallow or form is incorrect, the rep does not count.
4. Test Duration
   - Perform as many squats as possible in 1 minute.

Scoring

- Record the total number of correct squats.
- Compare results over time to track improvement.

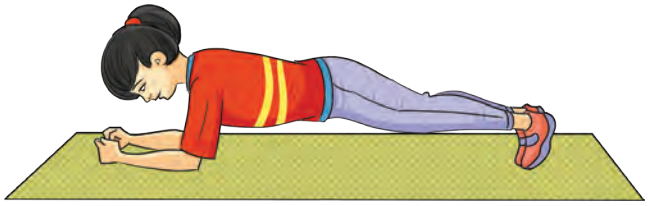
Guidelines for Accuracy

- Keep heels on the ground—no tiptoeing.
- No bouncing or half-squats—thighs must reach parallel.
- Use the same testing conditions for consistent results.

Plank Hold Test (Maximum Time)

Purpose

The Plank Hold Test measures core strength and endurance, engaging the abdominal muscles, lower back, shoulders, and legs.



Equipment Needed

- Flat surface (gym floor or mat for comfort)
- Stopwatch
- Partner or instructor to track time and check form

Procedure

1. Starting Position
   - Get into a forearm plank position:
   - Elbows directly under shoulders.
   - Arms bent at 90 degrees.
   - Keep your body straight from head to heels.
   - Feet should be hip-width apart.
2. Performing the Plank
   - Hold the plank position for as long as possible.
   - Maintain proper form—no sagging hips or raised buttocks.
   - Breathe normally throughout.
3. Ending the Test
   - The test ends when the participant can no longer hold proper form or chooses to stop.
   - Record the total time held (in seconds or minutes).

Scoring

- Record the longest time the plank is held.
- Compare results over time to track improvement.

Guidelines for Accuracy

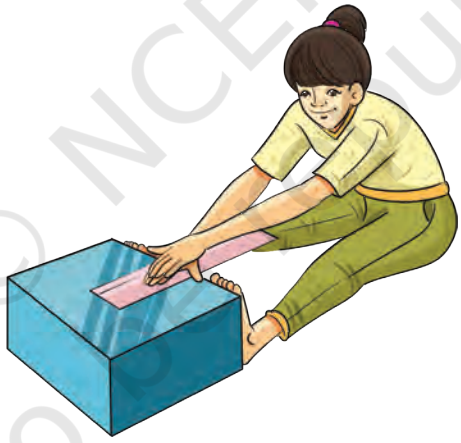
- Keep the body in a straight line—no arching or drooping.
- Ensure elbows remain under shoulders for balance.
- Use the same testing conditions each time for consistency.

Flexibility

Sit-and-Reach Test (Flexibility Measurement)

Purpose

The Sit-and-Reach Test measures hamstring and lower back flexibility. Good flexibility in these areas helps with posture, injury prevention, and overall mobility.



Equipment Needed

- Sit-and-reach box (or a ruler/tape measure placed on the floor)
- Flat, non-slippery surface
- Partner or instructor to measure the reach

Procedure

1. Starting Position
    - Sit on the floor with legs fully extended and feet flat against the box (or with heels 12 inches apart if using a ruler).
    - Keep knees straight and feet flexed (toes pointing upward).
2. Performing the Test
    - Reach forward slowly and steadily with both hands.
    - Keep hands one on top of the other and palms facing downward.
    - Hold the stretch for at least 2 seconds at the farthest point.
    - No bouncing or jerky movements—it must be a smooth reach.
3. Measuring the Reach
    - Measure the distance from the starting point (toes = 0 inches) to the farthest reach.
    - If the fingertips do not reach the toes, record a negative score (e.g., -3 inches).
    - If the fingertips go beyond the toes, record a positive score (e.g., +4 inches).
4. Best of Three Attempts
    - Perform three trials and record the best score.

Guidelines for Accuracy

- No bending knees—they must stay straight throughout.
- Ensure a smooth reach—no bouncing.
- Use the same testing method for accurate comparison over time.

Speed

Purpose

The 50- metre Sprint Test measures speed and acceleration, assessing how quickly a person can cover a short distance.

Equipment Needed

- Flat, non-slippery running surface (track or field)
- Measuring tape (to mark 50 meters)
- Cones or markers (for start and finish lines)
- Stopwatch
- Partner or instructor to time the sprint

Procedure

1. Warm-Up: Perform dynamic stretching and light jogging for 5-10 minutes.
2. Starting Position
    - Stand behind the starting line in a ready sprint stance.
    - One foot should be slightly in front of the other.
    - Arms bent at 90 degrees and body leaning slightly forward.
3. Sprint Execution
    - Run as fast as possible from start to finish.
    - Maintain good sprinting form (knees high, arms pumping).
4. Timing the Sprint
    - Stopwatch starts when the runner begins moving.
    - Stopwatch stops when the runner crosses the finish line.
5. Recording the Time
    - Record the best time from two trials (allowing enough rest between attempts).

Guidelines for Accuracy

- Ensure a standing start (no rolling starts).

- Use the same timing method for all students.
- Run in proper footwear to avoid slipping.

Stork Balance Test

Definition

A test to measure static balance by timing how long a person can maintain a one-legged stance on the ball of the foot.

Purpose

To assess postural stability, balance control, and lower limb strength.

Set-up

- Stopwatch
- Flat, non-slip surface
- Barefoot or flat footwear
- Hands on hips throughout the test

Procedure

- Stand barefoot with hands on hips.
- Lift one leg and place the toes against the inside of the opposite knee.
- Raise the heel of the supporting foot to stand on the ball of the foot.
- Start timing once the heel is lifted.
- Stop the timer if:
  - Hands come off hips
  - Supporting foot moves
  - Raised foot touches the ground
  - Heel drops to the ground
  - Repeat up to 3 times per leg and take the best time.