



# UNIT 2

## Motor Fitness

In this unit, we will learn about the importance of fitness. We will also understand that being fit can help us to be healthy and strong. Here are a few things we can do to be fit:

1. **Endurance:** We will do fun activities that will help us to play longer without getting tired.
2. **Building strength:** We will get stronger with regular exercise. It will build our muscles and bones.
3. **Becoming flexible:** When we stretch and move in guided ways, our bodies will become flexible.
4. **Learning balance:** When we practice being steady while playing and exercising, we also learn to balance our body.

Let's get moving and explore fitness with fun!

# Introduction to Motor Fitness

**Motor Fitness** refers to the ability of our body's muscles and nerves to work together effectively and efficiently. It involves skills like coordination, balance, agility, and reaction time. Good motor fitness helps us to perform daily tasks and activities easily and with control. But before we do any activity, we need to understand the concepts and techniques of warm-up, cool-down and stretching. Let us start our journey of fitness with the right first step!

## *Why is warm-up important?*

Warming up prepares the body for an activity, by raising the body temperature and heart rate which improves physical efficiency and performance. Warming up, stretching muscles and moving joints prior to an activity minimises the risk of injury.

### *How to warm-up?*

For approximately 5–10 minutes engage in any progressively light to intense grade exercise related to the sporting activity can be performed. For example, football kick, rugby ball passing, lifting light weights, shadow boxing, etc., followed by general exercises such as jogging, shuttle runs, high knee sprints can be performed. Once you start feeling energised, stretching exercises must be performed prior to commencing the sport or activity.

### *Why should we stretch?*

Stretching exercises are recommended before and after participating in any sport as they prepare the body for the forthcoming physical activity by enabling joints to move through their full range of motion. Pre-stretching reduces the risk of injury and post-stretching helps in recovery.

### *How to stretch?*

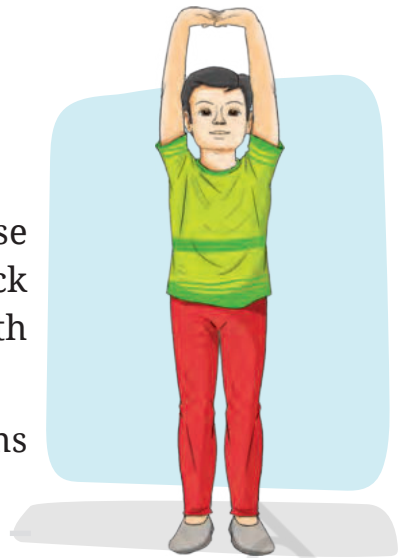
Keep your body relaxed. During stretching, concentrate on taking slow and deep breaths. Flexibility improves when the mind and muscles are relaxed. Everyone's ability to move and flexibility varies as they depend on physical characteristics, fitness levels and age. Always remember to stretch within your limitations and do not try to compete.

## Some Stretching Exercises

### Overhead Arm Stretch

Stand straight with a gap between your feet. Now raise both arms simultaneously upwards and then lock fingers of both hands. Push your arms upwards with palms facing the sky, as shown in the picture.

**Variation:** Lean forward and backward whilst arms outstretched.



### Rear Shoulder Stretch

Stand straight with your feet joined together or closer to each other. Move your arms towards your back and try to join them backwards. Now lock your fingers of both the hands and push your arms backwards as far as possible.

**Variation:** Lean forward whilst pushing hands backwards to increase intensity.



### Overhead Triceps Stretch

Stand straight with gap between your feet. Raise your arms upward. Bend one of your arms from elbow behind the neck. Hold it from elbow with the other hand and pull sideways. Repeat the same with the other arm.

**Variation:** Bend your upper body in the direction of the pull.





## Chest Stretch

Stand straight with a gap between your feet. Now raise both your arms like an open hug posture and then stretch both your arms as much as possible, so that you can feel the stretch of your chest. Swing them backwards as far as possible.

**Variation:** Bend your elbows to form almost 90-degree angle and do the same stretch.

## Hip Circles

Stand straight with a gap between your feet. Then put both hands on the sides of your waist. Now rotate hips forming large circles in both clockwise and anti-clockwise direction keeping the legs straight as shown in the picture.

**Variation:** Place your hands straight on your sides and bend sideways alternately letting your hands slide sliding hand towards your knee one after the other.



## Torso Twist

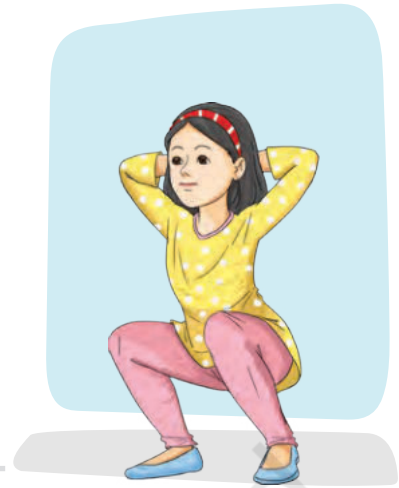
Stand straight with feet shoulder width apart. Raise both the arms parallel to the ground and rotate your upper body using your hands and shoulders while keeping your lower body still. Repeat it in the other direction.

**Variation:** Raise your arms above your head and do the same twist.

## Squat

Stand straight with a gap between your feet. Now raise both the arms up and place them with crossed fingers at the back of your head. After that, slowly lower your body as if you are sitting on an invisible chair while keeping your head straight with the same position as above and keeping your back straight.

**Variation:** Change the position of your arms to increase or decrease the difficulty level.



## Quadriceps Stretch

Stand straight with gap between your feet. Now balance on one leg and move the other leg backwards. Hold the ankle of the leg bent backward and pull it towards your hip as close as possible. Repeat the same with the other leg.

**Variation:** Lean your body forward while doing the same stretch.

## Floor Touch

Stand straight and keep your feet apart. Raise both arms straight upwards, parallel to each other, adjacent to both ears, as if each earlobe is covered by both inner arms. Now, slowly lean forward in the same position and try touching the floor with both palms without bending your knees.

**Variation:** Stay in the stretch and move your palms on the floor forward and backward.





## Calf Stretch

Stand straight in front of a wall at an arm length. Placing both hand on the wall. Now place one foot in front of the other and slightly bend the knee of that leg. You must ensure that the heel of your back leg is touching the floor. Feel upper calf stretch in the back leg.

**Variation:** Move your back leg further backwards to increase the stretch.

## Crossed-leg Toe Touch

Stand straight with both feet joined together. Now cross one of the legs without bending. The leg which is crossed should be slightly ahead of the other leg. Lower your upper body to touch the toe of the crossed leg with both the arms.

**Variation:** You may stand on heels with crossed leg while staying in the stretch.



## Crouch-leg Stretch



First, sit down while balancing the body weight on both your knees and on your feet. Now stretch out one leg such that it is completely straight and the toe is raised towards the top, as shown in the picture.

The balance of the other foot should be on the toes entirely and you can touch the floor with both hands for balance.

## Groin Stretch

Sit down on the floor, one leg crossing over the other. Now gently bring the soles of your feet together. Grab each foot with your hands and place your elbows against the inner thighs. Keep your back straight during this stretch.

**Variation:** Try the same stretch in supine lying position.



## Hip Stretch

Sit down and stretch both the legs straight with the feet joined together. Now bend one leg and cross it over the inner thigh of the other leg.

**Variation:** Try the same stretch in lying position alternately with single and both legs.



## Hamstring Stretch

Lay down on the floor in supine position. Then, lift one leg as shown in the figure. Now provide support to the inner thigh below the knee with both hands and try to pull the bended leg towards the chest.

**Variation:** Sit with your legs straight in front of you. Try to reach your toes without bending your knees.



## Abdomen Stretch

Lay down on your stomach. Place your hands on the floor next to your ears. Now lift your upper body with the support of your arms and straighten the arms completely so that the shoulders are parallel to the earlobes.

**Variation:** Stay in the position and try to lift both legs together.



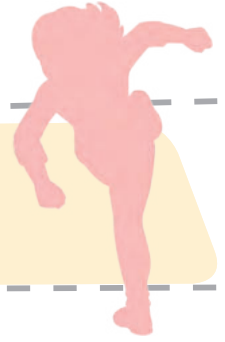
### Why cool-down?

- Cooling down brings the body to the rest systematically by lowering the body temperature and heart rate in a controlled manner. It also presents an opportunity to reflect on your performance, calm down and relax.

### How to cool-down

- After the physical activity gently stretch your body for 5–10 minutes. Perform the exercises as illustrated above focusing on relaxing the muscles from head to toe. Include deep breathing exercises for relaxation.

# Obstacle Race



**Obstacle Race** is a challenging event where participants run through a course filled with various obstacles. It tests their strength, agility and endurance.

Warm-up	Activity	Cool-down	Circle Time
Overhead Arm Stretch Crossed Leg Toe Touch Rear Shoulder Stretch	Obstacle Race	Groin Stretch, Head to Knee Stretch Abdomen Stretch	Identify a physical injury



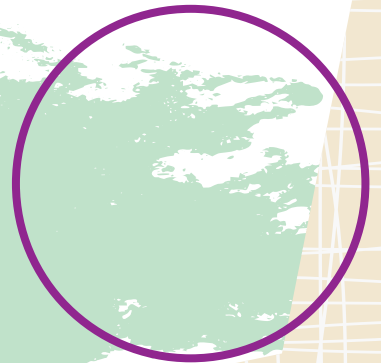
## How to play?

- Make two teams. Arrange cones and hula hoops in a straight line.
- First player in the lane will start the race by running across the cones (zig-zag) followed by hopping inside the hula hoops and then running back to the starting line, and single clapping the next teammate's hand.
- This sequence will continue till the last teammate completes the course.
- The team that finishes first wins the game.

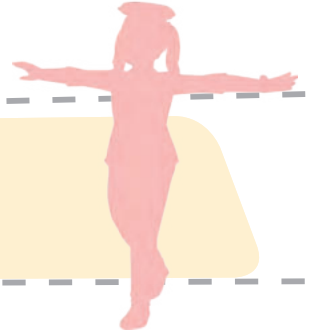


### Circle Time – *Identify a physical injury*

- Identify the distress signals and report physical injury to your teacher such as discomfort in movement, bruises and rashes, blood, intense pain, facial expressions, etc.
- Share a moment when you kept trying to complete a task in a game despite the fact that the game was difficult.



# Balancing Act

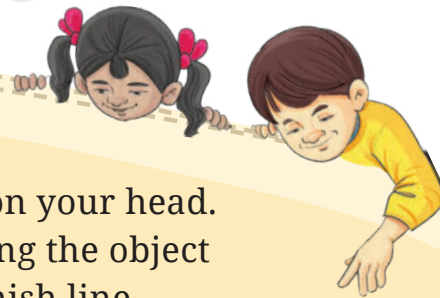


**Balancing Act** involves maintaining stability and control. It requires coordination and concentration to prevent falling. For example Lemon and Spoon Race, Balancing a stick on fingers, etc. Let's try balancing act.

Warm-up	Activity	Cool-down	Circle Time
Chest Stretch Hip Circles Floor Touch	Balancing Act	Calf Stretch, Head to Knee Stretch Hamstring Stretch	Balancing

## How to play?

- Place any soft small object on your head. Walk straight while balancing the object on the head from start to finish line without dropping the object. The one to finish first will be the winner.

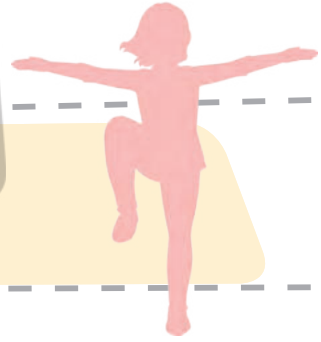




### **Circle Time – Balancing**

Identify the movements of the body parts which helped you in balancing the object on your head.

# Shivam Says



**Shivam Says** is a game that tests listening skills and quick reactions.

Warm-up	Activity	Cool-down	Circle Time
Rear Shoulder Stretch Shoulder Circles	Shivam Says	Overhead Triceps Stretch Side lunges Cross-legged Toe Touch	Feel the muscle stretch

## How to play?

- Stand in a circle at a certain distance from each other.
- Follow the commands of your teacher.
- The command will start with “Shivam says”.
- For example, Teacher commands “Shivam says, - touch your toes”. You have to follow the command and hold that position until the next command is given. Feel the stretch in your muscles.



**Circle Time** – *Feel the muscle stretch*

Do this circle time while performing any activity. Hold the position and feel the muscle stretch involved while performing that specific activity.

# Collaborate and Conquer



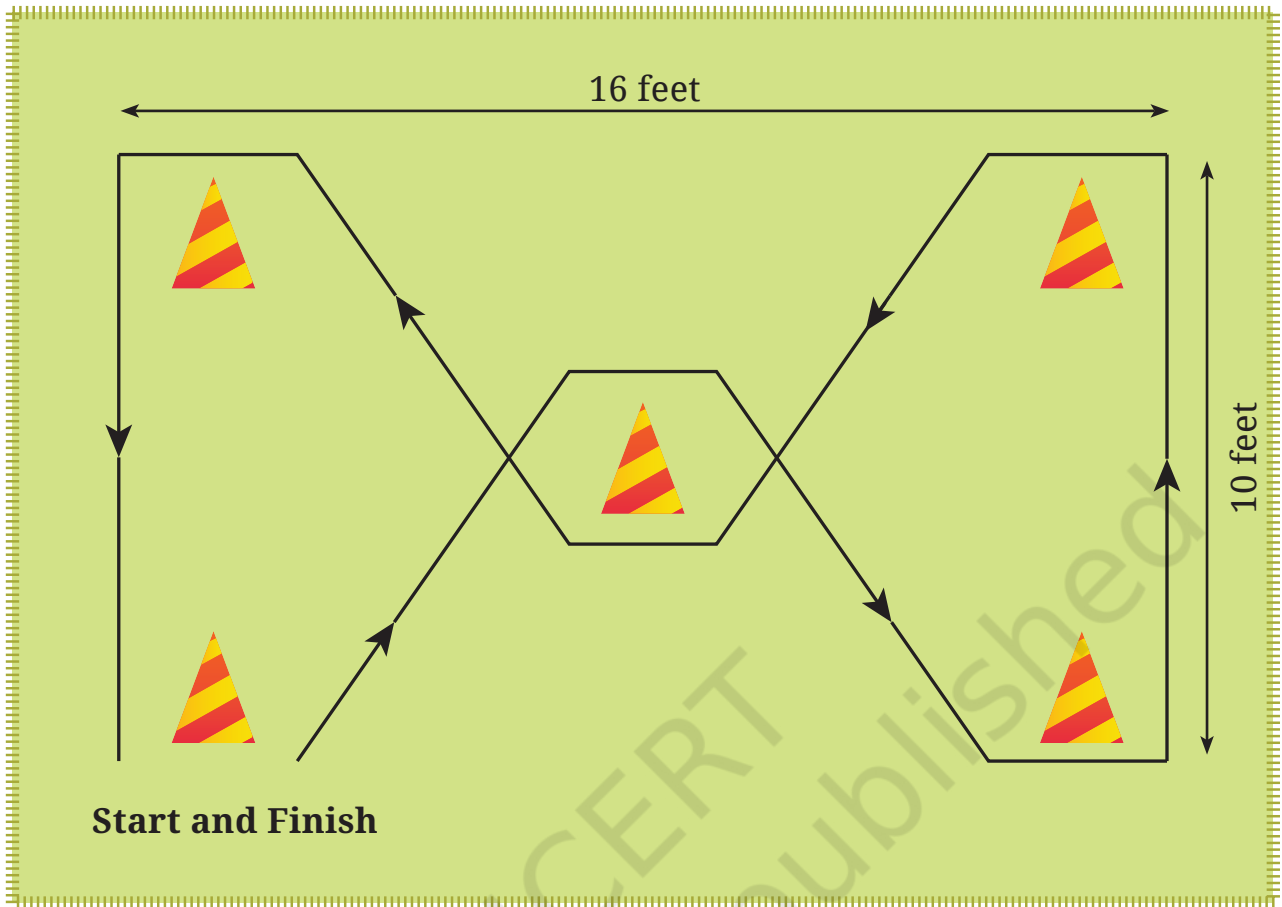
**Collaborate and Conquer** highlights the benefits of teamwork, strategy and helping each other.

Warm-up	Activity	Cool-down	Circle Time
Shoulder Circles Floor Touch Groin Stretch	Running Between the Cones	Hamstring Stretch Calf Stretch Cross-legged Toe Touch	Helping Others

## How to play?

- Form two teams with five players each and a captain.
- Each team captain has to arrange all the cones in a given period of time.
- Remove the cones after recording the time.
- Then all the players from both the teams will arrange the same cones as shown in the picture in a given period of time.
- Before playing, teams should discuss the strategy for 1–2 minutes.
- The team that finishes first wins the game.





### Circle Time – *Helping others*

- Compare the time taken by the captain and the team. What do we learn from that observation?
- How can you use the learning of today's activity in helping your teacher?

# Grab the Ball



**Grab the Ball** is a variation of *Rumaal Jhapatta* wherein we will learn to be agile, attentive, work on our movement time, and spot the opportunities all together.

Warm-up	Activity	Cool-down	Circle Time
Rear Shoulder Stretch Overhead Arm Stretch Squat	Grab the Ball	Floor Touch Hip Circles Abdomen Stretch	Appreciating others

## How to play?

- Form two groups — A and B. Make a large circle. Inside the circle draw a smaller circle and place a ball inside the small circle.
- Numbers will be assigned to each player randomly.
- One player from each team will be assigned the same number.
- All players will start jogging outside the circle.
- When the teacher calls out a number. Both the players assigned that number will run to pick up the ball.
- Player who picked the ball should get out of the larger circle without being touched by the opponent.
- The player who returns with the ball successfully wins one point for the team.
- The team with the maximum points will win the game.





### **Circle Time** – *Appreciating others*

- Share one good quality of the opposing team player.
- Discuss how it felt while appreciating the opposing team player.

# Push-up Position and Pass the Ball



**Push-up Position and Pass the Ball** is an unconventional game which will help to develop physical strength and mental toughness while having fun.

Warm-up	Activity	Cool-down	Circle Time
Overhead Arm Stretch Rear Shoulder Stretch Overhead Triceps Stretch	Push-up Position and Pass the Ball	Chest Stretch Shoulder Circles Cross-body Shoulder Stretch	Mental Toughness

## How to play?

- Make two teams for the game.
- Two players from each team will get down in a standard push-up position, balancing their body weight on their toes and palms facing their partner approximately five metres apart.



- Each player from both the teams will roll the ball towards their partner alternatively.
- The pair which holds the position for longer duration will be the winner.



### **Circle Time** – *Mental Toughness*

Express how you felt when you were on the verge of quitting the game. What motivated you to maintain the position?

# Tic-Tac-Toe Dribble Relay



**Tic-Tac-Toe** is a game generally played on a paper. Have fun and enjoy this along with some physical activity.

Warm-up	Activity	Cool-down	Circle Time
Torso Twist Squat Quadriceps Stretch	Tic-Tac-Toe Dribble Relay	Floor Touch Calf Stretch Side Lunges	Team Spirit

## How to play?

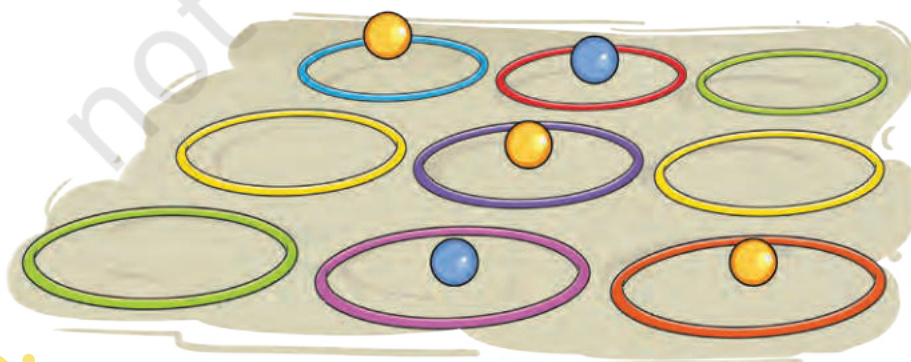
- Make two teams and ask them to stand in a queue. Take one minute to collectively discuss your moves.
- On the first whistle, the first member of each team will dribble (slightly bounce) the ball till it reaches the first ring and place it in the empty ring. Then that player will give the turn to next teammate by giving a single clap on the hand.
- Next player will do the same.
- The first team to get three of their marks in a row horizontally, vertically, or diagonally wins the game.
- If all squares are filled without a winner, the game is a draw.



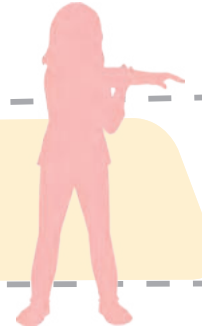


### **Circle Time – Team spirit**

Share your experience of collective thinking that helped your team in blocking the opponent's move and progressing your team's move? What do you think can build team spirit among the players in such activities?



# Crocodile Race



**Crocodile Race** is an interesting game in which we follow the crocodile movement for the development of strength and coordination. Enjoy the game!

Warm-up	Activity	Cool-down	Circle Time
Overhead Arm Stretch Rear Shoulder Stretch Overhead Triceps Stretch	Crocodile Race	Chest Stretch Shoulder Circles Cross Body Shoulder Stretch	Coordination

## How to play?

- Select players in pairs as per their body weight.
- The first member of each pair takes a plank position.
- The second member will grab the ankles of the first member of each team carefully after the first players have established complete body balance on their hands.
- Pairs will start moving forward coordinating with each other's body position.
- Once the pair has reached the end line, switch the role and come back towards the starting line.
- The pair that reaches the starting line first, will be the winner.





 **Circle Time – Coordination**

- Identify the mistakes you did during the game and discuss how to improve them.
- Discuss how you maintained coordination and balance with yourself and with your game partner.

# Head, Shoulder, Knee and Ball



**Head, Shoulder, Knee and Ball** is a local game which aims at developing attentiveness and following instructions at the same time, while enjoying the game.

Warm-up	Activity	Cool-down	Circle Time
Neck Stretch Hip Circles Floor Touch	Head, Shoulder, Knee and Ball	Overhead Arm Stretch Torso Twist Cross-legged Toe Touch	Attentiveness

## How to play?

- Mark a straight line on the playground.
- Place balls on that line at one metre from each other.
- Pair up while facing each other and keep appropriate distance to avoid collision while playing.
- Teacher will call the names of different body parts and players have to give prompt response by touching the called-out body part.



- For example, if the teacher says “head”, you have to touch your head, but when the teacher says “grab” you have to grab the ball.
- One who grabs the ball first will be the winner of that round. In case both players grab the ball at same time it will be a draw.



### **Circle Time** – *Attentiveness*

Share your experience on how you remained focused to give the right response to each call.