Movements and perceptual motor learning

Lesson plan and teacher's notes · Form 1 Physical Education and Sport · 1 period of 40 minutes

School	(write school name)	**Teacher**	(write name)
Date	(date)	**Class**	Form 1
Subject	Physical Education and Sport	**Enrolment**	Boys ___ Girls ___ Total ___
Time	40 minutes	**Topic**	Movements and perceptual motor learning

Learners name the four kinds of movement, join movements into patterns, combinations and formations, explain perceptual motor learning and organise a PE session into warm-up, main activity and cool-down. The lesson is practical and uses the school field.

Specific outcomes

By the end of the lesson, learners should be able to:

1. Name and perform locomotor, non-locomotor, balancing and manipulative movements
2. Perform a movement pattern and join patterns into a combination
3. Take part in a line, column or circle formation with correct spacing
4. Explain perceptual motor learning and describe the three parts of a PE session

Prior knowledge

- Simple games played at school or home
- Names of body parts
- Walking, running and jumping

Teaching and learning materials

- a school field or open space
- a ball or a ball made of rolled paper or cloth
- chalk or sticks to mark lines
- a whistle or a voice signal

References

Ministry of Education (CDC) Form 1 Physical Education and Sport syllabus and module; 25Schools learners' note: Movements and perceptual motor learning.

Lesson development

Stage and time	Teacher activities	Learner activities
Introduction and warm-up 8 min	Explain that every session begins with a warm-up. Lead light jogging, skipping and gentle stretches. Ask learners why they feel warmer afterwards.	Jog, skip and stretch and say how their bodies feel.
Development: kinds of movement 10 min	Name and demonstrate locomotor, non-locomotor, balancing and manipulative movements. Call a movement and learners show it. Work the dribbling example.	Perform each movement on a signal and call out which kind it is.
Development: patterns and formations 10 min	Teach the skip as a pattern, then join two patterns into a combination. Arrange the class in a line, a column and a circle, and stress spacing.	Perform the pattern, then the combination, and move between formations without collision.
Development: perceptual motor learning 7 min	Use a ball or a whistle. Learners see or hear the signal and respond. Explain senses, perception and motor response using the goalkeeper example.	Respond to the signal and say which sense they used.
Cool-down and conclusion 5 min	Lead slow walking and gentle stretching. Ask learners why one should not stop suddenly after hard exercise. Set the homework.	Walk slowly and stretch, then answer and copy the homework.

Teacher's content notes

Read these before the lesson. They are what you need to know, not what to copy onto the board.

Four kinds of movement

Locomotor movements take the body from one place to another, such as walking, running, hopping, skipping and galloping. Non-locomotor movements are done in one spot, such as bending, twisting and stretching. Balancing activities hold the body steady, and manipulative movements involve an object, such as throwing, catching and kicking.

Patterns, combinations, formations

A movement pattern is a set way of moving in a repeated order, such as the skip. A combination joins two or more patterns into a sequence that flows. A formation is how a group is arranged: a line, a column, a circle, a square or scattered.

Balance

A small base, such as one foot, makes balance harder than a wide base, such as two feet apart. You can balance while still or while moving, as when walking along a narrow line.

Perceptual motor learning

The senses report what is happening, the brain makes sense of it, and the body responds with movement. The goalkeeper who sees the ball and dives shows the quick link between seeing and moving.

Parts of a PE session

A session has three parts in this order: warm-up, main activity and cool-down. The warm-up prepares the body and reduces the chance of injury, the main activity is the work of the session, and the cool-down lets the heart rate and breathing return slowly to normal.

Questions to ask during the lesson

Question	Expected answer
A girl runs to catch a minibus and then balances on one foot to take off a shoe. (a) Name the kind of movement in the run. (b) Name the kind of movement in the balance. (c) Say why one foot is harder than two feet.	(a) Locomotor. (b) Balancing. (c) A small base makes balance harder.
A boy stands in one spot, bends down to touch his toes and then twists his body to the left. (a) Say whether these are locomotor or non-locomotor. (b) Give the reason. (c) Name another movement of the same kind.	(a) Non-locomotor. (b) The body does not travel from one place to another. (c) Stretching, swinging or turning on the spot.
A teacher asks a class to join a hop on one foot, a step and a hop on the other foot into one smooth sequence. (a) Name the single skip-like movement. (b) Name the joined sequence. (c) Say what a good one is like.	(a) A movement pattern. (b) A combination. (c) It flows, and the end of one movement leads into the next while the body stays in control.
A class stands in a circle facing the centre, then turns into a column behind the leader. (a) Name the first formation. (b) Name the second formation. (c) Say why each person must keep their place.	(a) Circle. (b) Column. (c) To keep spacing so that no one collides.

Worked examples for the board

Example 1: dribbling

A learner dribbles a football while running down the field. Running takes her from one place to another, so it is locomotor. Dribbling controls a ball with her feet, so it is manipulative. The answer is locomotor and manipulative movement together.

Example 2: building a sequence

A learner runs for four steps, jumps, lands and turns on the spot. Running and jumping are locomotor, and the turn is non-locomotor. Joined into one flowing sequence they form a combination.

Example 3: organising a session

A coach plans a session: five to ten minutes of jogging and stretches, then a passing drill and a game, then slow walking and gentle stretches. These are the warm-up, the main activity and the cool-down.

Board plan

Write the title. Left: the four kinds of movement with two examples each. Centre: how a sequence is built from a pattern to a combination. Right: the three parts of a PE session in order with their purpose. Draw a circle, a line and a column for formations.

Part	What is done	Purpose
Warm-up	Light jogging, skipping, gentle stretches	Raise body warmth and reduce chance of injury
Main activity	Skills, games, drills	The work of the session
Cool-down	Slow walking, gentle stretching	Let heart rate return to normal and relax muscles

The three parts of a PE session

Mistakes to expect

Learners often think	Put it right
Any movement that uses the legs is locomotor.	Locomotor movement takes the body from one place to another. Standing on one leg and swinging the other is non-locomotor.
A warm-up is a waste of time.	It raises body temperature and lowers the chance of injury before hard work.
Perception is only seeing.	It is the brain making sense of what all the senses report, including hearing and touch.

Differentiation

Learners who struggle

Give learners who struggle one movement at a time and let them copy a partner before they perform alone. Use clear space marks so they can find their formation place.

Learners who finish early

Ask learners who finish early to design a four-step combination that uses at least three kinds of movement, and teach it to a partner.

Hearing or visual impairment

For learners with hearing impairment, use clear hand signals and a visual cue as well as a whistle. For learners with visual impairment, pair them with a partner who guides and describes each movement, and use a voice or a sound ball.

No projector, no printing

No equipment is needed. Use a ball of rolled paper or cloth, stones or sticks as markers, and the school field or any open space.

If time is short

Teach the four kinds of movement and the three parts of a session, which carry the main idea. Leave movement exploration and perceptual motor learning for the next lesson.

Evaluation

Question or task	A correct answer shows
A learner dribbles a football while running down the field and then stops to stretch her arms above her head. (a) Name the kinds of movement used in the dribbling run. (b) Name the kind of movement used in the stretch. (c) Give a reason for the stretch.	(a) Locomotor and manipulative. (b) Non-locomotor. (c) The body stays in one place while a part moves.
A group of twelve learners must move from the classroom to the field without collision, standing first side by side and then one behind another. (a) Name the first formation. (b) Name the second formation. (c) Say why spacing matters.	(a) Line. (b) Column. (c) So that no one collides.
A goalkeeper sees the ball leave the striker's boot and dives to save it. (a) Name the sense used. (b) Say what the brain does with that information. (c) Name the skill that links seeing and moving.	(a) Sight. (b) Makes sense of it, which is perception. (c) Perceptual motor skill.

Homework

A learner has ten minutes before a netball match and decides to start playing straight away, and after the match she sits down at once. (a) Say what she should have done first. (b) Say what she should have done last. (c) Give a reason for each.

Extra practice with answers

Question	Answer
1. A girl throws a ball against a wall and catches it, then bounces it as she walks. (a) Name the kind of movement. (b) Give two other examples of the same kind. (c) Say which part of the movement is locomotor.	(a) Manipulative. (b) Any two of kicking, dribbling, striking, rolling. (c) The walking.
2. A boy walks along a narrow line drawn on the ground without stepping off. (a) Name the kind of activity. (b) Say whether he is balancing while still or moving. (c) Say how he could make it easier.	(a) Balancing. (b) Moving. (c) Use a wider base or a wider line.

3. A learner hears a whistle and stops at once, then sees a coach point and turns that way. (a) Name the two senses used. (b) Say what perception means. (c) Name the kind of learning shown.	(a) Hearing and sight. (b) The brain making sense of what the senses report. (c) Perceptual motor learning.
4. A learner tries hopping forward, sideways and backwards on one foot to find which works best. (a) Name this way of learning. (b) Say what it helps her find out. (c) Give another movement she could explore.	(a) Movement exploration. (b) What her body can do and which way works best for a task. (c) Skipping, jumping or throwing.
5. A team stops running suddenly after a hard game and several players feel dizzy. (a) Say what part of the session was missed. (b) Give two things it includes. (c) Say what it does for the body.	(a) The cool-down. (b) Slow walking or jogging and gentle stretching. (c) Lets heart rate and breathing return slowly to normal and helps muscles relax.
6. A drill group of twenty learners must keep their own space as they practise throwing. (a) Name the formation. (b) Say why it suits the drill. (c) Name another formation used for drills.	(a) Scattered formation. (b) Everyone has their own space. (c) Line, column or circle.

Answers to the learners' check-yourself questions

1. Name the four kinds of movement activities.
   Locomotor, non-locomotor, balancing and manipulative.
2. Is twisting the trunk while standing in one place locomotor or non-locomotor? Give a reason.
   Non-locomotor, because the body does not travel from one place to another.
3. Give two examples of manipulative movements.
   Any two of: throwing, catching, kicking, dribbling, striking, bouncing, rolling.
4. What is a movement combination?
   Two or more movement patterns joined together in one smooth sequence, such as run, jump, land and turn.
5. Describe how a column formation differs from a line formation.
   In a column, learners stand one behind another. In a line, they stand side by side.
6. Explain perceptual motor learning using a goalkeeper as an example.
   The goalkeeper sees the ball and the brain makes sense of it (perception), then the body dives to stop it (motor response). Perceptual motor learning is learning to link the two quickly and accurately.
7. State two activities that develop perceptual motor skills.
   Any two of: hopscotch, dodging games, catching and throwing, walking along a line, skipping rope, running through cones.
8. State one purpose of a warm-up and one purpose of a cool-down.
   Warm-up: prepares the body and lowers the chance of injury. Cool-down: returns the heart rate and breathing slowly to normal and helps muscles relax.

Teacher's reflection

What went well:

What I will change next time:

Learners who need follow-up: