



Substantive and Disciplinary Knowledge in PE

Substantive knowledge (**declarative knowledge - knowing what**) is the carefully sequenced, factual knowledge that our pupils learn through our curriculum; our life-long learning and other information that we learn alongside this. Substantive knowledge cannot be learnt in isolation but requires prior knowledge that enables our pupils to make sense of what they have learnt. Our pupils learn this through the sequencing of our lessons. Prior knowledge must be revisited and misconceptions actively diagnosed through timely interventions.

Disciplinary knowledge (**procedural knowledge - knowing how/when/why to perform each action/movement**) in PE is the way in which our pupils learn: through applying and experimenting with actions, balances, movements and skills. It comes through opportunities for our pupils to choose and apply their own actions, balances, movements and skills (when and how to apply the substantive knowledge). Once they have mastered the specific skills in isolation, they have opportunities to apply these within small-sided games. Consequently, making informed decisions based on their substantive knowledge dependent on the scenario/learning environment (opponents' positioning, tactics and/or strategies) through application of specific actions, balances, movements and skills. As their substantive and disciplinary knowledge around tactics become more complex, they will have to work collaboratively to make decisions.



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Area of PE	Substantive Knowledge (KNOWLEDGE) <i>Declarative knowledge - (knowing what)</i>	Disciplinary Knowledge (SKILLS) <i>Procedural knowledge - (knowing how)</i>	Assessment Opportunities
<p>Dance - KS2 Curriculum Guidelines</p> <p>Develop flexibility, strength, technique, control and balance.</p> <p>Perform dances using a range of movement patterns.</p> <p>Compare their performances with previous ones and demonstrate improvement to achieve their personal best.</p>	<p>Children will develop their understanding and knowledge of the 6 principles of dance: travelling, turning/rotating, jumping/leaping, balance/stillness and levels.</p> <p>Children will develop their understanding of dance specific vocabulary e.g. unison, cannon, motif and mirroring.</p> <p>Children will build schemas linked to specific dance moves e.g. the grapevine and specific dance genres.</p> <p>Compose motifs and plan dances collaboratively.</p> <p>How to peer and self-assess, identifying strengths and weaknesses in their own and peer performances.</p>	<p>Children will create rhythmic patterns using bodily movements exploring each principle of dance within a range of dance genres.</p> <p>Children will combine movements into a motif: individually and with a partner. Whilst doing so, specific vocabulary will be explored through bodily movements.</p> <p>Children will build accurate replication of shown moves through video/pupil demonstrations through refining and repeating shown moves/motifs.</p> <p>Children will combine motifs/movements into sequences with a partner or in small groups.</p> <p>Children will watch and evaluate the dance sequences of others and provide feedback. Teachers will model how this looks and show effective examples.</p>	<p>Peer-assessment</p> <p>Self-assessment</p> <p>Teacher assessment</p> <p>Video analysis</p>
<p>Gymnastics - KS2 Curriculum Guidelines</p> <p>Develop flexibility, strength, technique, control and balance.</p>	<p>Children will develop their understanding and knowledge of the compositional concepts in gymnastics: levels, speeds, relationships, directions, body shapes and linkage (fluidity).</p>	<p>Children will create fluid sequences using bodily movements exploring each compositional concept in gymnastics individually, with a partner and in small groups.</p>	<p>Peer-assessment</p> <p>Self-assessment</p>

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<p>Compare their performances with previous ones and demonstrate improvement to achieve their personal best.</p>	<p>Children will develop their understanding of gymnastics specific vocabulary e.g. unison, cannon, mirroring, tension, extension and stillness.</p> <p>Children will build schemas linked to specific gymnastics moves e.g. travels (forward roll) and balances (arabesque).</p> <p>Children will explore transitions between travels and balances and ensure they understand how to make their sequences fluid.</p> <p>Children will develop their understanding of peer and self-assessment - identifying strengths and weaknesses in their own and peer sequences.</p>	<p>Children will combine isolated travelling movements and balances into a sequence: individually, with a partner and in small groups. Whilst doing so, specific vocabulary will be explored through bodily movements.</p> <p>Children will build accurate replication of shown moves through video/pupil demonstrations through refining and repeating shown moves/balances.</p> <p>Children will combine travelling movements and balances into sequences individually, with a partner or in small groups: they will focus on movements/balances at various levels to ensure the transition is fluid.</p> <p>Children will watch and evaluate the dance sequences of others and provide feedback. Teachers will model how this looks and show effective examples.</p>	<p>Teacher assessment</p> <p>Video analysis</p>
<p>Athletics - KS2 Curriculum Guidelines</p> <p>Use running, jumping, throwing and catching in isolation and in combination.</p> <p>Compare their performances with previous ones and</p>	<p>Children will build schemas in a range of athletics activities: throwing, jumping, running (sprint and distance).</p> <p>Children will develop their understanding of running for speed/endurance.</p>	<p>Children will practice and refine accurate replication of shown techniques when throwing, jumping and running (sprint and distance). This will be explored through the long jump; javelin throw and a range of running races including a baton relay.</p> <p>Children will participate and explore activities which focus on stride length, acceleration, importance of pumping arms and body position through a range of running activities. Teachers will demonstrate good examples and/or use pupils to portray correct techniques</p>	<p>Peer-assessment</p> <p>Self-assessment</p> <p>Teacher assessment</p> <p>Video analysis</p>

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<p>demonstrate improvement to achieve their personal best.</p>	<p>Children will build knowledge related to the baton change over and running as a team in relay races.</p> <p>Children will build knowledge on how to start and end each race.</p> <p>Children will develop their understanding of the correct technique when throwing a javelin.</p>	<p>before the children apply their substantive knowledge into each activity.</p> <p>Children will participate in activities whereby they are shown the correct technique of the 'pass over' and work effectively in groups to complete the exchange and provide feedback. Children will apply their substantive knowledge as and when they see fit to ensure the changeover takes place in the correct area and remains a fluid exchange.</p> <p>Children will be shown the correct body position for the start of the race and develop their reaction times through partner activities. They will practice various race distances (100m, 200m and 400m) in small groups and apply their substantive knowledge of knowing to accelerate through the finish line.</p> <p>Teachers will model and give opportunities for children to practice and refine their technique when throwing a javelin through sequenced activities that break the throw down (grip, arm position, transfer of weight, position of javelin and follow through). Children will rehearse the techniques in isolation and in pairs to provide peer feedback.</p>	<p>Personal best recording e.g. timings and distances</p>
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	<p>Children will develop their understanding of the correct technique when performing the long jump.</p> <p>Children will develop their understanding of peer and self-assessment - identifying strengths and weaknesses in their own and peer performances.</p>	<p>Teachers will model and give opportunities for children to practice and refine their technique when performing a long jump through sequenced activities that break the jump (take-off, flight and landing). Children will rehearse the techniques in isolation and in pairs to provide peer feedback.</p> <p>Children will watch and evaluate peer performances and provide feedback linked specifically to teacher break down of techniques e.g. running strides, body position and arm movement. Teachers will model how this looks and show effective examples.</p>	
<p>Invasion games – KS2 Curriculum Guidelines</p> <p>Play competitive games, modified where appropriate [for example, basketball, cricket, football, hockey and netball] and apply basic principles suitable for attacking and defending.</p> <p>Use running, jumping, throwing and catching in</p>	<p>Children will develop their understanding and knowledge of specific invasion games through sport-specific units of work: football, basketball, hockey, tag-rugby, netball, dodgeball and handball.</p> <p>Children will develop their understanding of different types of passes, shots, hits and</p>	<p>Teachers will deliver units of work linked specifically to various invasion games which will be sequenced one after another to ensure opportunity to transfer both substantive and disciplinary knowledge between them. Pupils will practice/rehearse applying the substantive knowledge in isolation and in groups both in and out of game situations e.g., passing the ball in tag-rugby.</p> <p>Children will practice each pass, shot, hit or catch in isolation/small-sided games and apply their fundamental movement skills to game situations. These will be explored in several scenarios linked to game situations</p>	<p>Peer-assessment</p> <p>Self-assessment</p> <p>Teacher assessment</p> <p>Video analysis</p>



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<p>isolation and in combination.</p> <p>Compare their performances with previous ones and demonstrate improvement to achieve their personal best.</p>	<p>catches with their hands, feet and when holding a stick (hockey).</p> <p>Children will develop their knowledge of how, when and why to outwit an opponent across the range of invasion games. This will be linked to their build up on knowledge regarding special awareness.</p> <p>Children will develop their understanding of what attacking and defending (individually and as a team) consists of. They will develop their knowledge of the different on and off the ball responsibilities, decision making and skills needed to participate in invasion games.</p> <p>Children will develop their knowledge of the rules, strategies and tactics linked to the range of invasion games covered across Y3-6.</p> <p>Children will develop their understanding of peer and self-assessment - identifying strengths and weaknesses in their own and peer performances.</p>	<p>whereby the children will have to decide the type of pass, hit, shot or catch they want to perform.</p> <p>Pupils will practice given situations/scenarios across the range of invasion games and explore advantages and disadvantages of specific strategies used to outwit opponents. These will be demonstrated by teachers/pupil demonstrations and rehearsed by pupils. E.g. dribbling/running into space to beat an opponent.</p> <p>Children will participate in small-sided conditioned games (2v2, 3v2, 4v2 etc) whereby the overload of attackers or defenders will be used to create ample opportunities for children to apply their substantive knowledge linked to attacking and defending. Teachers will use timely intervention to explicitly show children of the correct time to effectively attack/defend e.g. running into space with/without the ball or covering and area/markings a player.</p> <p>Children will partake in activities whereby they apply the rules/strategies and tactics individually and as a team as well as taking the role of a referee/umpire to facilitate the rules. These will further develop their understanding of how to outwit an opponent.</p> <p>Children will watch and evaluate peer performances and provide feedback linked specifically to teacher break</p>	
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		<p>down of passes, shots, hits and passes. Teachers will model how this looks and show effective examples.</p>	
<p>Net and Wall Games - KS2 Curriculum Guidelines</p> <p>Play competitive games, modified where appropriate [for example, tennis] and apply basic principles suitable for attacking and defending.</p> <p>Use running, jumping, throwing and catching in isolation and in combination.</p> <p>Compare their performances with previous ones and demonstrate improvement to achieve their personal best.</p>	<p>Children will develop their understanding and knowledge of specific net and wall games through sport-specific units of work: tennis and table tennis (if raining).</p> <p>Children will develop their understanding of different types of hits: forehand, backhand, basic serves and return. They will explore what the correct grip looks like for each along with the aligning arm/feet and body movement.</p> <p>Children will develop their knowledge of how, when and why to outwit an opponent (placing the ball away from their opponent). Children will develop their knowledge of the different on and off the ball responsibilities, decision making and responsibilities needed to participate in net and wall games.</p>	<p>Teachers will deliver units of work linked specifically to various net wall games which will be sequenced one after another to ensure opportunity to transfer both substantive and disciplinary knowledge between them. Pupils will practice/rehearse applying the substantive knowledge in isolation and in groups both in and out of game situations e.g. returning a hit from an opponent.</p> <p>Children will practice each type of hit in isolation/small-sided games and apply their fundamental movement skills to game situations. These will be explored in several scenarios linked to game situations whereby the children will have to decide the type of hit. Children will be shown how to grip the racket for each type of hit and have ample opportunities to apply them within various activities/game-situation.</p> <p>Pupils will practice given situations/scenarios within tennis and explore advantages and disadvantages of specific strategies used to outwit opponents. These will be demonstrated by teachers/pupil demonstrations and rehearsed by pupils. E.g. hitting into specific spaces on the court (accuracy) and deciding which type of shot to take (forehand, backhand or smash). Children will develop their understanding of when to apply the shot linked closely to their opponent's positioning on the court.</p>	<p>Peer-assessment</p> <p>Self-assessment</p> <p>Teacher assessment</p> <p>Video analysis</p>

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	<p>Children will develop their knowledge of the rules, strategies and tactics linked to net and wall games (tennis).</p> <p>Children will develop their understanding of peer and self-assessment - identifying strengths and weaknesses in their own and peer performances.</p>	<p>Children will partake in activities whereby they apply the rules/strategies and tactics individually as well as taking the role of a referee/umpire to facilitate the rules. These will further develop their understanding of how to outwit an opponent e.g. hitting into space and returning to the centre of the court).</p> <p>Children will watch and evaluate peer performances and provide feedback linked specifically to teacher break down of shots/hits. Teachers will model how this looks and show effective examples.</p>	
<p>Outdoor Adventurous Activities – KS2 Curriculum Guidelines</p> <p>Take part in outdoor and adventurous activity challenges both individually and within a team.</p> <p>Compare their performances with previous ones and demonstrate improvement</p>	<p>Children will develop their understanding and knowledge of how to orientate maps.</p> <p>Children will build schemas linked to how to read maps e.g. locate specific locations and move between set locations.</p> <p>Children will develop their knowledge related to problem solving explicitly linked to orienteering.</p>	<p>Teachers will model how to orientate the map and explicitly refer to which direction north points towards in relation to the school grounds. Children will participate in various orienteering routes whereby they will need to regularly orientate their map from different locations on the school grounds.</p> <p>Teachers will model how to read a map and refer to each symbol and the key. Children will work individually, in pairs and small groups to find specific locations on the map to retrieve symbols/numbers/letters from various routes. Children will have to decide how to orientate the map and which order they will visit each location.</p> <p>Children will be given various routes/courses to complete working individually, in pairs and in small groups.</p>	<p>Peer-assessment</p> <p>Self-assessment</p> <p>Teacher assessment</p> <p>Personal best recording e.g. timings and distances</p>

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<p>to achieve their personal best.</p>			
<p>Swimming (Y5 ONLY) - KS2 Curriculum Guidelines</p> <p>Swim competently, confidently and proficiently over a distance of at least 25 metres.</p> <p>Use a range of strokes effectively [for example, front crawl, backstroke and breaststroke].</p> <p>Perform safe self-rescue in different water-based situation.</p> <p>Compare their performances with previous ones and demonstrate improvement to achieve their personal best.</p>	<p>Children will develop their understanding and knowledge of specific swimming strokes: front crawl, breaststroke, back stroke.</p> <p>Children will develop their knowledge of water safety and build water confidence.</p> <p>Children will develop their knowledge of endurance whilst swimming.</p>	<p>Children will practice each swimming stroke in isolation. Each stroke will be broken down and demonstrated/explained by a qualified swimming instructor e.g. arm/leg action, breathing and body position. Groups will be formed and give the children opportunity to practice elements of swimming linked to their ability.</p> <p>Children will practice a range of elements linked to water safety/confidence:</p> <ul style="list-style-type: none"> • putting their faces in the water • effective use of strokes to achieve different outcomes of travel • a range of floating shapes • a range of push and glides • H.E.L.P (heat escape lessening position) • entering and exiting the pool unaided • breathing • movement around the pool <p>Children will practice a range of strokes over larger distances. This will build up from 5m to 25m unaided.</p>	<p>Swimming instructor assessment at Meadowside Leisure Centre</p>



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<p>Striking and Fielding – KS2 Curriculum Guidelines</p> <p>Play competitive games, modified where appropriate [for example, cricket and rounders] and apply basic principles suitable for attacking and defending.</p> <p>Use running, jumping, throwing and catching in isolation and in combination.</p> <p>Compare their performances with previous ones and demonstrate improvement to achieve their personal best.</p>	<p>Children will develop their understanding and knowledge of specific striking and fielding games through sport-specific units of work: cricket and rounders.</p> <p>Children will develop their understanding of different types of hits, bowls, throws, runs (in pairs for cricket or in isolation for rounders) and retrieval of the ball.</p> <p>Children will develop their knowledge of how, when and why to outwit an opponent across cricket and rounders. This will be linked to their build up on knowledge regarding special awareness when fielding and batting.</p> <p>Children will develop their knowledge of the different on and off the ball responsibilities, decision making and responsibilities needed to participate in striking and fielding games.</p>	<p>Teachers will deliver units of work linked specifically to cricket and rounders which will be sequenced one after another to ensure opportunity to transfer both substantive and disciplinary knowledge between them. Pupils will practice/rehearse applying the substantive knowledge in isolation and in groups both in and out of game situations e.g. hitting into space, throwing for accuracy and running to score runs.</p> <p>Children will practice each type of hit, bowl, throw, run and retrieval of the ball in isolation/small-sided games and apply their fundamental movement skills to game situations. These will be explored in several scenarios linked to game situations whereby the children will have to decide the type hit, bowl, throw, run and retrieval of the ball they want to perform.</p> <p>Pupils will practice given situations/scenarios across cricket and rounders. They will explore advantages and disadvantages of specific strategies used to outwit opponents. These will be demonstrated by teachers/pupil demonstrations and rehearsed by pupils. E.g. hitting into an open space/using a specific type of hit (backhand) and knowing when to use it.</p> <p>Children will participate in small-sided conditioned games (2v2, 3v2, 4v2 etc) whereby the overload of attackers or defenders will be used to create ample opportunities for children to apply their substantive knowledge linked to</p>	
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	<p>Children will develop their knowledge of the rules, strategies and tactics linked to the range of invasion games covered across Y3-6.</p> <p>Children will develop their understanding of peer and self-assessment - identifying strengths and weaknesses in their own and peer performances.</p>	<p>attacking and defending. Teachers will use timely intervention to explicitly show children of the correct time to effectively attack/defend e.g. running into space with/without the ball or covering and area/mark a player.</p> <p>Children will partake in activities whereby they apply the rules/strategies and tactics individually and as a team as well as taking the role of a referee/umpire to facilitate the rules. These will further develop their understanding of how to outwit an opponent.</p> <p>Children will watch and evaluate peer performances and provide feedback linked specifically to teacher break down of passes, shots, hits and passes. Teachers will model how this looks and show effective examples.</p>	
<p>Healthy Participation - KS2 Curriculum Guidelines</p> <p>PE should provide opportunities for pupils to become physically confident in a way which supports their health and fitness.</p>	<p>Children will develop their knowledge of the importance of a healthy lifestyle e.g. being active for 60 minutes a day and measuring heart rate pre, during and post exercise.</p>	<p>Children will have 2, 1 hour, lessons of PE a week whereby they will discuss benefits of being physically active and apply the relevant substantive knowledge to each domain of PE. This is supported by active breaktimes through Skip2Bfit: children will challenge themselves each day to beat previous personal bests. Children will be given the opportunity to measure their heart rate (pre, during and post) and link it to various types of activities.</p>	<p>Personal best recording e.g. timings and distances</p>

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