

PE AND NUMERACY LINKS - KEY STAGE 1

ASPECTS	GAMES	GYMNASTIC ACTIVITIES	DANCE
Number	<ul style="list-style-type: none"> • Counting games: <i>bounce the ball 5 times, throw the bean bag in the air 3 times, pass the ball to each other 5 times, how many times can you bounce the ball?</i> • Counting off in a sequence, 1,2,1,2,1,2 etc • Simple grouping: <i>Get into 2's, 3's, 4's etc</i> • Grouping in sets: <i>there are four groups of 5, how many children are there?</i> • Develop knowledge and understanding of patterns/sequences: <i>pass the ball between your legs, then over your head and repeat</i> • Use number cards to get into groups: <i>odd numbers below 10 here, even numbers between 10 and 20 here</i> 	<ul style="list-style-type: none"> • Developing sequences: <i>1st do a jump, 2nd do a roll, then repeat</i> • Investigating patterns: <i>run and hop, run and jump</i> 	<ul style="list-style-type: none"> • Grouping in sets: <i>there are four groups of 5, how many children are there?</i> • Sequencing, including pace and speed: <i>first start your movement slowly, then make your movement faster, repeat the pattern</i> • Repeating patterns of footwork: <i>two skips, walk for 4 steps, two hops and repeat.</i>

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ASPECTS	GAMES	GYMNASTIC ACTIVITIES	DANCE
Shape/ Space	<ul style="list-style-type: none"> Reinforcing shape concepts and vocabulary: <i>make a circle, go to the 4 corners of the grid, what shape is it? Make a rectangle.</i> Discuss the mathematical properties of the equipment and reinforce key vocabulary: <i>a ball is a sphere, a cone, a hoop, a quoit, mats, etc. How many edges, faces, sides etc.</i> 	<ul style="list-style-type: none"> Investigating shapes: <i>when doing a forward roll, what shape does the body make? Use of vocabulary, tall, long, small etc.</i> Travelling including direction and speed: <i>direction: up, down, right, left, forwards and backwards. Speed: slow, fast</i> Reinforcing shape concepts and vocabulary: <i>make a circle, go to the 4 corners of the grid, what shape is it? Make a rectangle. Get into threes, make a triangular shape etc.</i> <i>Safe movement of equipment: when putting mats away, 1 person to each corner.</i> Use simple mathematical vocabulary: <i>make a straight shape, curved, make a right angle with your arms</i> 	<ul style="list-style-type: none"> Links to symmetry: <i>mirror the actions of your partner.</i> Reinforcing shape concepts and vocabulary: <i>make a circle, go to the 4 corners of the grid, what shape is it? Make a rectangle.</i> Direction: <i>forward, backward, up, down, right and left</i> Use simple mathematical vocabulary: <i>make a straight/curved shape, make a right angle with your partner</i>
Measures	<ul style="list-style-type: none"> Estimation of distance: <i>stand about 1 metre away from your partner</i> Estimating distances apart and where it is safe to jump, move without interfering with each other Compare measures of length, speed: <i>how far can you jump, how far can you throw the ball, can you run to the end of the playground before the sand runs through the timer?</i> 	<p>Estimate height of apparatus: <i>compare to a metre, how tall is the climbing frame? How high is the big stool? How long is the bench? How could you measure the bench?</i></p>	<p>Estimate distances: <i>place your feet about 20 cm apart, about 30 cm apart, stand about 1 metre away from anyone else in the room</i></p>

PE AND NUMERACY LINKS – KEY STAGE 2

ASPECT	GAMES	GYMNASTIC ACTIVITY	DANCE
Number	<ul style="list-style-type: none"> Simple ordering: <i>Get into 2's, 3's, 4's etc</i> Counting off in a sequence: <i>3, 5, 7, 3, 5, 7, etc</i> Counting games: <i>bounce the ball 25 times, throw the bean bag in the air a multiple of three times, how many times can you pass the ball to each other without dropping it, estimate first.</i> Grouping in sets: <i>there are 29 children here today, what size groups could we make for this activity?</i> Develop further knowledge and understanding of patterns/sequences: <i>if there are 7 people in a row, and we pass the ball over the first person's head and between the second person's legs, where will the last person in the line receive the ball</i> Devise and explain scoring systems. Fractions: <i>halves/quarters/thirds of a pitch/court/game</i> 	<ul style="list-style-type: none"> Grouping in sets: <i>there are 29 children here today, what size groups could we make for this activity?</i> Investigating patterns: <i>when jumping, jump and curl, jump and stretch, etc</i> Developing sequences: <i>1st do a jump, 2nd do a roll and 3rd do a twist, repeat the pattern five times.</i> 	<ul style="list-style-type: none"> Grouping in sets: <i>there are 29 children here today, what size groups could we make for this activity?</i> Sequencing, including pace and speed: <i>first start your movement slowly, then make your movement faster, next make your movement very fast and finally slow your movement down, repeat the sequence three times</i> Rhythms of steps in Country Dancing Repetition of footwork
Shape and Space	<ul style="list-style-type: none"> Reinforcing shape concepts and vocabulary: <i>make a circle, go to the 4 corners of the grid, what shape is it: Make a quadrilateral. How many people do you need to make a hexagonal shape</i> Discuss the mathematical properties of the equipment and reinforce key vocabulary: <i>see above, KS1</i> Pitch/court markings: <i>semi-circles, quadrilaterals etc</i> 	<ul style="list-style-type: none"> Reinforcing shape concepts and vocabulary: <i>make a circle, go to the 4 corners of the grid, what shape is it: Make a triangle etc. Explore patterns of people. Make a straight shape, curved, put your arms at different angles</i> Safe movement of equipment: <i>when putting mats away, 1 person to each corner. Links to angles, right angles</i> Investigating shapes: <i>when doing a forward/backward roll, what shape does the body make? Use of vocabulary, curved, straight, open, closed, regular, irregular</i> Travelling including direction and speed: <i>direction: up, down, right, left, forwards and backwards, diagonally. Speed: slow/slower/slowest, fast/faster/fastest</i> 	<ul style="list-style-type: none"> Reinforcing shape concepts and vocabulary: <i>make a circle, go to the 4 corners of the grid, what shape is it: Make a triangle etc. Explore patterns of people. Make a straight shape, curved, put your arms at different angles</i> Links to symmetry: <i>mirror the actions of your partner, make a symmetrical shape</i> Degrees of rotation/turn Direction: <i>forward, backward, up, down, right and left, clockwise, anticlockwise</i>

PE AND NUMERACY LINKS – KEY STAGE 2

ASPECTS	ATHLETIC ACTIVITIES	OUTDOOR AND ADVENTUROUS ACTIVITIES	SWIMMING
Number	<ul style="list-style-type: none"> Work out combined distances/times for group: which group has thrown the furthest? Which group the quickest combined total for a run over a given distance? 		
Calculations	<ul style="list-style-type: none"> Work out comparisons against previous best and recognise improvement over time: <i>can individual children recognise improvement over time? Can they identify which is the furthest throw, which is the fastest run over 50 metres?</i> Work out combined distances/times for group: <i>which group has thrown the furthest? Which group the quickest combined total for a run over a given distance?</i> Work out speeds using simple formulae 		
Measures	<ul style="list-style-type: none"> Estimate distances of own jumps/throws etc: <i>are estimations realistic</i> Measure and record accurately distances of own jumps, throws etc: <i>are distances measured accurately?</i> Time accurately (with stop watches) own runs in pairs or small groups: <i>are times accurate?</i> Estimation of distance: <i>stand 5 metres away from your partner to throw the ball/ hit the stumps etc.</i> Apply vocabulary: <i>fastest, slowest, highest, shortest, largest, smallest to a range and variety of athletic activities</i> 	<ul style="list-style-type: none"> Estimate height of apparatus: <i>how tall is the climbing frame? What's the difference in height between the small a-frame and the large a-frame? How long is the bench?</i> Estimating distances apart and where it is safe to jump, move without interfering with each other 	<ul style="list-style-type: none"> Water safety: <i>estimate distances needed to throw rope/object to rescue someone in difficulty?</i> Record times taken to complete width/length of pool. <i>How much can you improve?</i> Work out comparisons against previous best and recognise improvement over time: <i>can individual children recognise improvement over time?</i> Estimate distances: <i>place your feet 20 cm apart, about 30 cm apart, stand 1 metre away from anyone else in the room.</i>

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ASPECTS	ATHLETIC ACTIVITIES	OUTDOOR AND ADVENTUROUS ACTIVITIES	SWIMMING
Data Handling	<ul style="list-style-type: none"> Represent, extract and interpret data in tables, graphs, charts and diagrams, e.g. five star awards, ten step awards. Use ICT where appropriate. 		
Solving Problems		<ul style="list-style-type: none"> Use simple maps and diagrams to develop range of orienteering and wide games: <i>need to discuss and practise a range of mathematical skills in class before the children can be expected to interpret maps, for example direction, scales, map orientation</i> Children to set problems for others to solve. Based on activities, debrief on how groups solved problems 	