Mathematics Audit

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| Maths Monitoring Statements | | | |
| Planning and Assessment | | | |
| Adults are: | | | |
| * Planning number experiences based upon children's developmental stages |  | | |
| * Planning shape, space and measure experiences based upon children's developmental stages |  | | |
| * Planning maths experiences that are practical and play based |  | | |
| * Planning for the use of specific mathematical vocabulary and language to support number use |  | | |
| * Planning for the use of specific mathematical vocabulary and language to support shape, space and measures |  | | |
| * Planning mathematical experiences that introduce & develop concepts in practical and concrete ways |  | | |
| * Introducing abstract mathematical concepts after children have explored these in both concrete and pictorial ways first |  | | |
| * Planning experiences that use stories as a stimulus for mathematical learning |  | | |
| * Long-term planning addresses all aspects and concepts required for attainment of the ELG's |  | | |
| * Children's learning & attainment is assessed according to the intended learning |  | | |
| * There is observational assessment of children's independent learning as evidence of children's attainment |  | | |
| Action Points: |  | | |
| Teaching and Adult Interaction | | | |
| Adults are: | | | |
| * Making maths fun and purposeful |  | | |
| * Modelling and encouraging developmentally appropriate but challenging mathematical language & vocabulary |  | | |
| * Using specific and accurate mathematical terminology |  | | |
| * Exploring real-life problems and relating mathematical concepts to every-day life |  | | |
| * Asking relevant mathematical questions |  | | |
| * Modelling and valuing children’s graphic representations of their maths ideas & thinking |  | | |
| * Drawing out mathematical concepts from everyday routines, i.e. snack-time, lining up, lunch time, sharing toys & equipment etc. |  | | |
| * Helping children to draw out conclusions and solve problems |  | | |
| * Engaging as equal playmates with children in mathematical experiences |  | | |
| * Recognising and exploiting the mathematical potential of the indoor and outdoor environment within their interactions with children |  | | |
| Action Points: | | |
| Providing a Mathematical Environment | | |
| The Mathematical workshop / Classroom environment | | |
| * Is there a number line to at least 20, displayed at child height? | |  |
| * Are there story and information texts which support numbers for labels and for counting, calculating and shapes, space and measures? | |  |
| * Is there a height chart showing standard and/or non-standard measures? | |  |
| * Is there a range of mathematical resources available for children to independently select that are clearly labelled & easily accessible? | |  |
| * Is there a wide range of commercially produced resources to support exploration of number and calculating as well as natural resources such as pebbles, shells, fir cones & conkers that can be counted, sorted, combined etc? | |  |
| * Is there a wide range of commercially produced resources to support exploration of shape, space and measures as well as natural resources such as twigs, feathers, shells, conkers that can be ordered by size, weighed or used to make patterns etc? | |  |
| * Can children access a range of mathematical games independently e.g. lotto, snap, dominoes, track games? | |  |
| * Are there ‘collections’ of things for children to investigate, sort and sequence e.g. boxes, buttons, socks, coins, beads, keys? | |  |
| * Are there opportunities for children to develop their ability to subitise numbers up to 6 e.g. dice games, dominos? | |  |
| * Children's mathematical recordings are displayed at child height | |  |
| * Opportunities for children to interact with numbers are available eg. washing line, velcro line, puzzles, ordering, patterns etc. | |  |
| * Maths challenge/s are set for children, with a clear learning intention and opportunities provided to record their thinking / ideas | | |
| Mathematical opportunities within the continuous provision / classroom environment | | |
| * Are resources that support maths high profile in at least 2 other areas of provision / learning zones? |  | |
| * Do role play opportunities exploit the maths available - e.g. purses and coins, scales and clocks, calendars, a telephone etc. |  | |
| * Are there resources available to explore shape and space independently e.g. in sand, water, play dough, clay etc? |  | |
| * Are there resources available to explore measures independently e.g. in sand, water, play dough, clay etc? |  | |
| * Does the construction area have visual images of things children can construct, photos of children’s constructions and opportunities for children to explore: shape? space? measures? numbers & calculation? |  | |
| * Maths activities / experiences offered have a learning intention / objective that is clear to the children |  | |
| * Maths activities / experiences promote and encourage the use of new, specific and targeted mathematical vocabulary |  | |
| * There are clear opportunities for children to practise, apply & consolidate newly taught mathematical ideas / concepts, independently in the classroom (through play-based and practical ways) |  | |

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| Observations of children learning in the classroom  Where and how are the children using maths?  Types of maths opportunities children were engaging in: | | | | |
| Counting  Combining groups  Doubling | Halving  Sharing  Size | Weight  Capacity  Position | Distance  Time  Money | Other:  Pattern Estimating  Shape (2d / 3d) Calculating |

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| Action Points: | |
| Mathematical opportunities within the outdoor learning environment | |
| * Does the outdoor environment complement the maths learning opportunities indoors in a way that is unique to outdoor learning indoor environment? |  |
| * Are there opportunities for children to explore maths through movement e.g. obstacle courses, den making, travelling games, tracks, construction on a large-scale? |  |
| * Can children access mathematical resources and return them independently? |  |
| * Are resources at child height so that children can peg numerals in the correct order or socks/T-shirts to make repeating patterns? |  |
| * Are there opportunities to explore drawing shapes, patterns or numerals on a large-scale e.g. chalking on floors, large scale chalk boards, easels, ‘painting’ with water and decorators’ brushes? |  |
| * Are there playground markings or chalked markings or displays which support maths e.g. shapes, numerals, tracks? |  |
| * Is there a number line and height chart? |  |
| * Are there small resources and ‘targets’ to support scoring e.g. basketball hoop, beanbags, quoits, skittles, knock–down cans? |  |
| * Are there resources to support the use of tallies or scoring? |  |
| Action Points: |  |