

## Extended notes for mathematical activities.

Number - children love to hunt, especially if what they are searching for is of interest to them. Use dinosaurs or eggs labelled with numbers and hide them around a marked area. This is a lovely activity if you have woodland to hunt in! To further challenge the children you could insist that numbers must be found in the correct order, therefore any out of sequence number must be left where it is found and returned to at the correct time. The numbers you use will reflect the stage of the children, more developed children can search for multiples of numbers or they could even search for the answer to a problem you have set them. This skill can be enhanced in the classroom by burying the eggs/dinosaurs in the sand tray and following the same rules. A timer can also be introduced to add to the challenge.

Teaching the correct formation of numbers can be difficult but children are more likely to engage in this activity if there is a purpose to it. Using number templates mark the starting point of the number with a dinosaur picture and the end point with a treat/goal for the dinosaur. The child then has to 'walk' a small model dinosaur along the correct formation to reach its treat/goal. The dinosaur's feet could be dipped in paint to mark its footsteps along the number.

Various number games could also be played using a dinosaur as a prop. A challenge of a set of number cards relative to the child's stage could be displayed on the board. A treat/goal for the dinosaur could be placed at the end of this line of cards. In order for the dinosaur to reach its treat/goal they must recognise each number correctly in order to move on to the next. The children can use a big dinosaur voice to answer these questions to make it more fun and to put the onus on the dinosaur not the child! Again, the numbers used will be relevant to the stage of the children. This can also be played by the children solving problems written on each card. Estimating numbers could be developed by placing a number of small dinosaurs in a jar and challenging children to record how many dinosaurs they think there are. This could be an on-going weekly challenge using various sized jars.

Measures and Money -marking the length of a dinosaur is a great opportunity to use the outdoors. Chalk can be used if working on a playground or if working on a playing field sticks can be used. More developed children could be responsible for researching and measuring the length as part of a small

group and less developed children could work with adult support to measure. Various dinosaur lengths could be marked to allow comparison and challenging the children to estimate the length by forming a human chain is also possible. When the length is marked the children could explore further by lying alongside it to discover how many children long the dinosaur would have been. The children could also design or decorate 'dinosaur feet' templates and use these to measure various objects. This will allow the children to experience both standard and non-standard units.

To demonstrate the height of various dinosaurs measure the correct length in a piece of string. Attach a weight to one end (a model of the relevant dinosaur would be great) and a helium balloon to the other. The height of the balloon will then roughly represent that of the dinosaur. Again, various data can be used and comparisons can be made between dinosaurs.

Weight can also be explored through 'dinosaur eggs'. A variety of fruits (such as oranges and melons) and hen's eggs can be painted cream and ordered by the children in accordance to weight and size.

To incorporate money into your dinosaur topic a 'Dinosaur Shop' could be set up as a role play area. Each dinosaur could be given a price tag (written by the children) and sold in the shop. The variety of coins provided will reflect the ability of the children.

Shape Position and Movement - shape dinosaurs can be made as 2D pictures or 3D models and the variety of shapes made available will reflect the ability of the child. Children could describe their dinosaur by naming the number of each shape used.

Children can experience position and movement by following or giving instructions to a blindfolded friend to find a hidden dinosaur. Depending on the stage of the child the instructions could vary. More able children can use more complex instructions involving whole, half and quarter turns.

Data - pictograms and graphs using model dinosaurs can be compiled representing the children's favourite dinosaurs prior to progressing to simple charts and graphs.

Depending on the stage of the children, they could be responsible for collecting the data required for the measure activities outlined above.

Various sources can be used to retrieve this information. It can then be used to order, compare etc.