Woodwork IN early years

# Mathmatical concepts and Mathmatical thinking

**Numbers**

Woodwork will encourage much use of number names and number language spontaneously

Being able to represent numbers with objects - number of nails, screws etc

Matching numeral and quantity

Counting – nails, number of sections of wood used. (working towards 1-20, one more/less)

Sorting types into numerical number

Estimating and then checking with counting

Associating numbers with length with use of tape measure

Adding/ subtracting; combine/ separate concepts

Halfling/ doubling –cutting wood in two – joining two equal sections

Represent with mathematical graphic making

Numerical problem solving – sharing,

Practitioner:

Use lots of number language, count in a variety of situations

Provide a real reasons to count – distributing resources - sharing

Encourage speculation/ estimation –

Expand mathematical numeracy vocabulary – more/ less/ fewer

Practitioner: Encourage children w/ EAL by using basic mathematical terms regularly
 give opportunities to work in their home language to ensure accurate understanding

Provide: Fabric tape measures, rulers, tree rings, paper/ pencil, children’s camera to document

**Shape, space and measure:**

Woodwork encourages three dimensional thinking, shape/ arrangement; understanding properties of shapes and spatial relationships.

Developing mathematical concepts:

Developing knowledge and noticing shapes: sides, round, square, oblong/ rectangle, circle, triangle…
 identify, name, describe

Develops knowledge of 3-dimensional shapes

Size: big / small/ little/large; short/long; thin/wide; thick/narrow; - combine with tape measure

Weight: heavy/ light; Height: Tall/short; low/high;

Line: straight/curved; corner; angle; side/ edge

Orientation/ position: upright/ vertical/ horizontal /sloping; under/above; behind/next to; balance

Categorize/ sort according to size, shape…

Comparing/ order/ arrange– size/ shape etc

Estimating – correct length of nail

Time – How long to saw section? how long have we been working (you will be surprised!), tidy up time.

Movement: rotation; push/pull; twist; levering; turn;

Measure – using variety of units

Practitioner:

Encourage the vocabulary and understanding associated with shapes, position and measurement

Encourage mathematical problem solving by the child

Measure for a purpose – keep it real

Provide:

Scales, set square, include circles in wood resources, cloth tape measure, rulers
Variety of sizes/ lengths of nails/ screws/ wood etc