**Ideas with sticks Part 1**

**You will need:**

A selection of sticks cut to different lengths (multiples of 5 or 10cm, suggest from 20 – 60cm long, enough for at least 1 per class member) and a longer reference stick (the ‘teacher’s staff!) – suggest 160cm.

Tip: 30-40mins in woodland with a large bag (ikea type) tape measure/metre stick and a pair of secateurs should allow for a class set + spares to be gathered (for free!).

**Some suggested activities:**

Ask pupils to get into order by stick length (discussion on wiggly sticks)

Reorder by stick thickness (discussion on where this is measured, vocab; circumference, diameter)

What about stick type? Colour, bark type, no bark.. Any other categories we can think of? Buds/knots..

Get into groups by stick length

Create a human bar-chart of sticks of different length

Using only the known-length teacher’s staff, deduce the length of all other sticks.

e.g.  teacher’s staff is 160cm.  4 x same length sticks that equal it must be 160/4 = 40cm each.  With a 40cm stick laid down, ‘exposed’ staff length is 160 – 40 = 120cm.   2 x same length sticks that match this are 120/2 = 60cm.

How many different ways can pupils find to work out the length of their stick?

What factors are equal?

e.g. how many 40cm sticks are equal to 2 x 60cm sticks?

Can they then use their ‘known length’ sticks to estimate their own height (lying down)?

Make a wiggly path of all sticks laid end to end; first pupil lays down their stick and calls out the length, second pupils adds their stick and calls out the new length of the path, third pupil adds on their stick and calls out the new length…

[could make this more complex by each pupil stating the length of their stick in cm then stating the new length of the path in metres]

Once the end of the path is reached, first pupil can remove their stick and subtract its length from the total, then the next..

Can pupils stack their sticks to make a pyramid (like a laid fire structure), or build any other shapes?

Area – write down different areas (cm²); challenge pupils to self-assemble into groups of 4 (or 3 if doing triangles) to make a shape that has each particular area.

In groups – can pupils use different length sticks to make a drawing of.. house / car / giraffe / human outline..  can other groups guess what it is?

As a big group, can they write a word with roughly proportional letters (schools name etc..)

If you have access to soft ground (and can push sticks in a little); can pupils make 3D shapes?  Can they calculate the surface area?  Volume?

Make a grid and play noughts and crosses.

What else could your stick be? A wand? A sword? A stickman? An alien creature?

With clay, what can sticks be made into?

**Don’t forget to share what you do on The Outdoor Learning Map**

[www.outdoorlearningmap.com](http://www.outdoorlearningmap.com)

See <https://www.outdoorlearningmap.com/listings/i-m-stickman-i-m-stickman-i-m-stickman-that-s-me-4262>

For some other stick ideas 😊

**Ideas with sticks Part 2**

**You will need:**

A selection of sticks cut to different lengths (multiples of 5 or 10cm, suggest from 20 – 60cm long, enough for at least 1 per class member) and a longer reference stick (the ‘teacher’s staff!) – suggest 160cm.

**How to get your sticks:**

You could go to woods on your weekend and collect them, or..

Can you take your class to woodland? Set them the task of collecting sticks (set your criteria; max/min thickness, must be collected from the ground only – nothing broken off living trees! Straight-ish or wiggle..). Ask them to bring the sticks to you. Cut them to size and either retain these or return them to the pupils. Don’t tell them what length they’ve been cut to. Or, ask them to cut them to a specific size (if you want to develop tool use skills – RA & training required) then place their sticks in a bag/bucket.

Dead wood sticks (if nice and dried out) should snap cleanly and with a satisfying break. You can make one or multiple breaks in sticks and issue sections to pupils.

Challenge pupils - can they find their partner sticks that join together perfectly? Can they give their bit a fraction name? (Freddy the fifth, Sally the sixth..)? Vocabulary – complementary, corresponding, fit-together, matching, align, inverse,

Pick-up-sticks on a big scale.