Feeding and weeding the lawn

A differentiated whole-group activity for spring, summer or autumn.

- Tell your learners that your lawn is in need of urgent attention - full of moss in the autumn, or full of weeds in the spring or summer. You would like their help to work out how much moss killer or weed killer you need to buy.
- First, describe the size of your lawn in terms of the room you are in e.g. as wide as the room but half as long again.
- Ask learners to estimate the dimensions of the room and of your lawn.
- Ask two learners to measure the room and work out the dimensions of your lawn in metres.
- Round the dimensions to the nearest whole metre.
- Calculate the area of the lawn in square metres (m^2).
- If you have Level 2 learners in your group, tell them that you have a pond in the middle of the lawn with a diameter of 2.4 metres. Using the formula
  Area = 3 x (radius) ^{2}
  ask them to calculate the area of the pond that needs to be subtracted from the area of the lawn.
- Round the area to the nearest whole square metre.
- Lawn feed with moss / weed killer needs to be applied at the rate of 35g per square metre. How much do you need? The lawn feed is sold in 1.75 kg packs. How many packs do you need?
- If you have Level 2 learners in your group, tell them that you have an old set of scales in your shed that you keep for weighing garden chemicals (to avoid poisoning your family by using your kitchen scales to weigh chemicals).
  The old scales only have an imperial scale i.e. pounds and ounces.
  Given that 1 kg is approximately 2.2 lbs, how much lawn feed will you need?
  (If 1 kg = 2.2lbs = 35oz, then 1000g = 35oz, and10g = 0.35oz so 35g = 3.5 x 0.35oz = 1.225oz or roughly 1¼oz per m^2).

Main curriculum links

N1/E2.6 E3.7 L1.8 rounding numbers.
N1/E3.9 L1.3 L2.2 problem solving, written calculations.
N1/L2.4 evaluate expressions and make substitutions in given formulae.
MSS1/E2.5 E3.5 L1.4 read, estimate, measure and compare length.
MSS1/L1.7 (L2.6) convert measures in same system e.g. m to cm (between systems).
MSS1/L1.9 work out the area of rectangles
MSS1/L2.7 use given formula to work out perimeter and areas of regular shapes (e.g. circles)

This resource kindly contributed by **Judith White, Somerset Adult Learning and Leisure.**