

Topic: Living things and their habitats	Year 6 Age 10-11	Title: Flower sampling
Working Scientifically Plan: Plan different types of scientific enquiries to answer their own questions (pattern seeking)		Concept Context Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences
Assessment Focus <ul style="list-style-type: none"> • Can children select and explain their sampling technique? • Can children use a sampling technique to answer a pattern-seeking question? 		
Activity <i>We are going to be environmental scientists.</i> Identify an area in the school grounds or local area which would be suitable for a survey of common flowers (e.g. school field or grass area in the local park, before grass cutting). Generate some questions with the children e.g. I wonder which flowers are on our school field, how many flowers, the best place for flowers to grow (if discussing before visiting the site, have pictures of daisies, buttercups, clover, dandelions etc as appropriate for local area). Discuss sampling techniques which could be used to answer questions e.g. hoop, quadrat or cut out card (cereal box in pic below). 'Throw' rather than place, to be more random and avoid seeking data which matches predictions. Multiple samples (the more samples of the population the better) e.g. 15 throws across field or 5 throws in each place if comparing areas. Each group to decide on pattern-seeking question and appropriate method (could record in labelled diagram before or after sampling). Carry out sampling, recording results as a group. Discuss findings and use of sampling methods.		
Adapting the activity Support: Support decision-making for sampling to answer question. Provide results table structure. Extension: Use sample results to calculate population of flowers across whole field. Other ideas: Survey other plants in area e.g. trees.		
Questions to support discussion <ul style="list-style-type: none"> • Which common flowers grow here? • How many do you think there are? • Where do you think they grow best? • How can we find out? • Which sampling technique will you use? • How many samples/areas will you look at? • What data will you collect? 		
Assessment Indicators Not yet met: Children collect data but are not clear about what or why they are sampling. They may skew their results by seeking out the areas of high population to place their hoop. Meeting: Children meeting the objective would be able to select and apply a sampling technique to collect results to answer a question e.g. <i>we found more daisies in the hoops in the middle of the field than at the edge.</i> Possible ways of going further: Can explain the limitations of their sampling e.g. <i>the hoop landed on the leaves of the dandelion, but the flower was outside the hoop, so does that count? There were lots of daisies but our hoop never fell on them because it's just chance, maybe we need to do it more times.</i>		



Teacher box 4 - gather evidence in a range of ways. See TAPS pyramid for more eggs.