

	Required practical	Apparatus and techniques covered											Examples of possible practical activities	Old ISAs/EMPAs that may be used?	Competencies					Could you make it more investigative? AND/OR Is this an opportunity for researching, referencing and reporting? If so, how?	
4	Investigation into the effect of a named variable on the permeability of cell-surface membranes	1	1	1								1	1								
5	Dissection of animal or plant gas exchange or mass transport system or of organ within such a system					1			1			1									
6	Use of aseptic techniques to investigate the effect of antimicrobial substances on microbial growth			1								1									

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7	Use of chromatography to investigate the pigments isolated from leaves of different plants, eg leaves from shade-tolerant and shade intolerant plants or leaves of different colours	1	1						1											
8	Investigation into the effect of a named factor on the rate of dehydrogenase activity in extracts of chloroplasts	1	1	1																
9	Investigation into the effect of a named variable on the rate of respiration of cultures of single-celled organisms	1	1	1						1										

	Additional possible practical activities	Apparatus and techniques covered	Old ISAs/EMPAs that may be used?	Competencies	Could you make it more investigative? AND/OR Is this an opportunity for researching, referencing and reporting? If so, how?