

	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?