

Advanced Higher Biology Project: Possible Investigation Topics

These examples come from projects completed by previous candidates. As examples, they offer ideas but don't form a complete list, and candidates don't have to follow them. Choosing one of these examples doesn't guarantee a high mark.

Possible investigation topic	Possible independent variable	Possible dependent variable
Music on cognitive performance or Music on physiological performance	Music genre Music volume Music tempo Presence or absence Musical instrument Lyrics or no lyrics	Serial position effect Short-term memory Manual dexterity Reaction speed Chunking Perception Distance travelled Heart rate variability

Possible investigation topic	Possible independent variable	Possible dependent variable
Germination	Saltwater concentration Pine needle concentration or pine needle age Tomato concentration Competition UV radiation Age of seeds Temperature Pre-treatment of seeds Biofertilizer Depth of planting or depth of soil Type of soil or type of substrate Chitting time or chitting conditions	Number germinated Percentage germinated Length of shoot Length of root Germination time Dry mass
Mitotic Index	Different tissues Different species Times of reproductive cycle Temperature Inhibition by chemicals Age of plants UV radiation	Percentage in mitosis Percentage per stage of mitosis

Possible investigation topic	Possible independent variable	Possible dependent variable
Biodiversity	Invertebrates Native species versus introduced species Distribution within areas Water speed or water flow Pollutant levels North facing versus south facing Trampling effect Height of leaf from ground versus leaf morphology Flower quality versus pollinator visitation rate	Derived possibilities Percentage abundance Percentage coverage Simpson's Index Trent biotic index