Experimental programme

International Baccalaureate · IB Diploma · Environmental Systems and Societies · HL · Vocabulary in context

Word	Example
research question /rɪ'sɜ:tʃ 'kwestʃn/	A good **research question** names what you change and what you measure.
independent variable /ˌɪndɪ'pendənt 'veərɪəbl/	The **independent variable** is the one you change.
dependent variable /dɪ'pendənt 'veərɪəbl/	The **dependent variable** is the one you measure.
controlled variable /kən'trəʊld 'veərɪəbl/	pH is a **controlled variable**: keep it the same. pH
hypothesis /haɪ'pɒθəsɪs/	Our **hypothesis** predicts more growth in brighter light.
null hypothesis /nʌl haɪ'pɒθəsɪs/	The **null hypothesis** says there is no difference between the groups.
informed consent /ɪn'fɔ:md kən'sent/	Get **informed consent** before you interview people.
sample /'sæmpl/	The **sample** contains the people selected for this study.
representative /ˌreprɪ'zentətɪv/	A **representative** sample is like the whole population in small.
random sampling /'rændəm 'sæmplɪŋ/	**Random sampling** gives every spot an equal chance of being chosen.

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systematic sampling /ˌsɪstə'mætɪk 'sæmplɪŋ/	In **systematic sampling**, we choose every tenth name on a list after a random start.
transect /træn'sekt/	We put quadrats along a **transect** from the shore to the woods.
stratified sampling /'strætɪfaɪd 'sæmplɪŋ/	In **stratified sampling**, each group is sampled in proportion to its size.
quadrat /'kwɒdræt/	Count the daisies inside the **quadrat**.
questionnaire	A **questionnaire** asks residents about water use.
uncertainty /ʌn'sɜ:tənti/	The length is 25.0 cm with an **uncertainty** of 0.1 cm. 25.0 cm 0.1 cm
random error /'rændəm 'erə/	Small changes in your reaction time cause a **random error**.
systematic error /ˌsɪstə'mætɪk 'erə/	A scale that reads too high gives a **systematic error**.
reliability /rɪˌlaɪə'bɪlɪti/	Getting similar results again and again shows **reliability**.
validity /væ'lɪdɪti/	Controlling other factors improves the **validity** of the experiment.
kite diagram	A **kite diagram** shows how the number of each species changes along a line.
standard deviation /'stændəd ˌdi:vɪ'eɪʃn/	A larger **standard deviation** means the values are more spread out.
correlation /ˌkɒrɪ'leɪʃn/	A **correlation** links two variables without proving cause.

Word	Example
spearman's rank correlation coefficient /ˈspɪəmənz ræŋk ˌkɒrɪˈleɪʃn ˌkəʊɪˈfɪʃənt/	**Spearman's rank correlation coefficient** shows how strongly two ranked sets are linked.

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