Year 11 Science: Five investigative approaches and the question each one answers

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Which approach best answers: which of the beetles caught in pitfall traps in the school bush are native?

2. Which approach best answers: do kererū visit gardens more often in the months when more trees are fruiting?

3. A student tests whether the slope of a tray of soil changes how much soil washes off when 500 mL of water is poured over it. Name the independent variable, the dependent variable and one controlled variable.

4. Explain why modelling, not a fair test, is the right approach for predicting how a 1 m rise in sea level would affect a coastal town.

5. A student wrote: 'Exploring and observing was appropriate because we explored and observed the stream.' Say why this is not yet Merit, and what it needs.

Fix the mistake

6. Correct this statement: "Every investigation is a fair test, so each one needs an independent and a dependent variable."

7. Correct this statement: "The graph shows pH falling as CO_2 rises, so this proves CO_2 causes it."

8. Correct this statement: "Pattern seeking was appropriate because we were looking for patterns."

9. Correct this statement: "Surveys and things said at a wānanga are not real science, so I left them out."