Year 11 Science: Science language, graphs and judging a claim

Name: _____ Date: _____

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

Practice

1. A graph's axis starts at 20. Brand X scored 30 and brand Y scored 25. How many times taller does X's bar look, and what is the real percentage difference compared with Y?

2. Towns with more libraries have more crime. Give the most likely reason.

3. 50 people took a cold remedy and most felt better within 5 days. What convention is missing?

4. Which is more honest about a single study: "proves" or "suggests"? Why?

Exam-style question: phones and sleep

Resource: SleepRight NZ, which sells blue-light-blocking glasses, posts "Late-night phone use wrecks teen sleep and grades! Blue light suppresses melatonin, disrupting the circadian rhythm." A bar graph shows phone users after 10 pm sleep 7.0 and others 8.0, with the axis starting at 6.5 and no units. A footnote says 40 students at one Auckland school filled in an online survey; it was not peer reviewed.

5. (a) Who published this information, and why?

6. (b) State one science-related claim in the post.

7. (c) Identify the science language used.

8. (d) Identify the science conventions used, or missing.

9. (e) How well do the language and conventions support the claim? Use evidence from the resource.

Fix the mistake

10. Correct this statement: "The resource uses words like germinate and polymer, so the claim is supported."

11. Correct this statement: "The graph matches the claim, so the claim is true."

12. Correct this statement: "Ice cream sales and drownings rise together, so ice cream causes drowning."

13. Correct this statement: "There is no peer review, so the claim is wrong."