Year 12 Science: Carrying out an Earth and Space Science investigation

Name: _____ Date: _____

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

Practice

1. Three repeats give crater diameters of 8.2 cm, 8.6 cm and 8.4 cm. Find the mean.

2. Purpose: to find out how the slope angle of a sand tray affects the mass of sand washed off by 500 mL of water. Name the independent and the dependent variable.

3. Repeats at 80 cm are 7.0 cm, 7.2 cm and 9.6 cm, and the third marble hit an old crater. Find the mean you should report.

4. A 20 g marble is dropped from 0.50 m. Calculate its gravitational potential energy (g = 9.8 N/kg).

5. Which change to a method makes the data more reliable?

6. Explain why the crater widths rise by less with each extra 20 cm of drop height.

Fix the mistake

7. Correct this statement: "My results are reliable because I was careful."

8. Correct this statement: "I put every result in the mean, even the one that bounced."

9. Correct this statement: "I joined my points dot to dot and drew the line through zero."

10. Correct this statement: "My science section explains what a crater is."