**Year 12 ATAR Human Biology ATHBY**

**Task 8: Science Inquiry**

**In-class validation quiz 2021**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answer all questions on lined paper provided.**

1. Propose a hypothesis for this experiment. (2 marks)
2. Define ‘placebo’. (2 marks)
3. What was the placebo treatment administered during this research? (2 marks)
4. Explain the term ‘double-blind’ and why researchers would use this approach. (3 marks)
5. With reference to the data provided, state two conclusions that   
   can be drawn from the experiment. (4 marks)
6. Error bars are graphical representations of the variability of data and are used on graphs to indicate the [error](https://en.wikipedia.org/wiki/Errors_and_residuals_in_statistics) or uncertainty in a reported measurement.

What is the benefit of using error bars? (2 marks)

1. Explain why scientists would include a post-treatment measurement. (2 marks)

8 After considering the data and your conclusions, what treatment advice would you provide to a patient with less severe lung function (Baseline FEV1 70–90%)?

Explain your response, referring to data provided. (2 marks)