

2 Miniproject: Which mathematical models best  
3 fit an empirical dataset?

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Kayleigh Greenwood

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Word Count: 150

## Abstract

8   blah blah blah

## 9 Introduction

10 about population growth curves how population growth curves are typically modelled in the liter-  
11 ature

12 objectives of this study

13 Explain mechanistic vs phenomenological in the context of population growth Explain why i  
14 am comparing a model of each type why i chose the mechanistic model that i did why i chose the  
15 phenomenological model that i did

16 Example of reference [1].

## 17 Methods

18 Describe the mathematical models i fitted and compared to the data, and which methods i used to  
19 do this.

20 Describe how i compared and selected models and why i used the methods i did (AIC/BIC)

## 21 Data

## 22 Computing tools

23 Describe which biological computing tools i used for each section of the workflow and how i chose  
24 those tools

25 states briefly how each of the scripting languages (bash, R, Python) was used and what packages  
26 within them were used and a justification of why.

## 27 Results



Figure 1: apple this is a photo of an apple

## 28 Discussion

## 29 References

- 30 [1] Pierre-François Verhulst. Notice sur la loi que la population suit dans son accroissement. *Cor-*  
31 *resp. Math. Phys.*, 10:113–126, 1838.