# Lab 03: ggplot2 David Gerard 2019-09-06

## Chick Weight

The ChickWeight data frame contains information on the effect of diet on the weight of chicks in an experiment from 1990. Load it into R and read about it with:

```
data("ChickWeight")
help("ChickWeight")
```

Reproduce the following plots exploring the effect of diet on weight.



### **Insect Sprays**

Read about the InsectSprays data frame by typing into R:

data("InsectSprays")
help("InsectSprays")

These data contain one categorical and one quantitative variable. We can explore their association through a boxplot. Reproduce the plot below:



Since there are few observations, you decide to just plot the points, but you want to account for overlapping points. Try to approximate this plot (you won't be able to get it *exactly* the same):



#### Michelson Speed of Light

Load in and read about the morley data frame in R:

```
data("morley")
help("morley")
```



Do the different experiments predict different speeds of light? Reproduce the following plot:

Is there a trend in the experimental runs? Reproduce this plot in R:



### Rock

Read about the rock data frame by:

data("rock")
help("rock")

Does area seem to be associated with permeability? Justify with a plot.