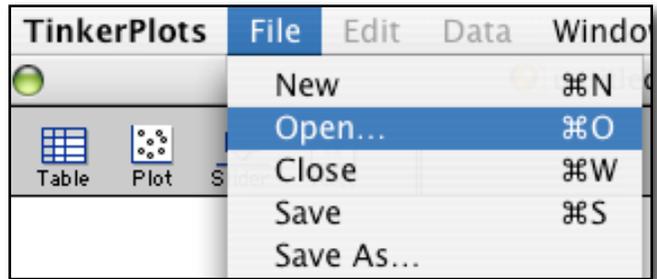# Using Backpack Data in Tinker Plots

1. Go to **File.**
2. Click **Open.**

You need to navigate to the directory (folder) where the program files (applications) are stored. You will find the working files stored in…
TinkerPlots Ontario English
Data and Demos
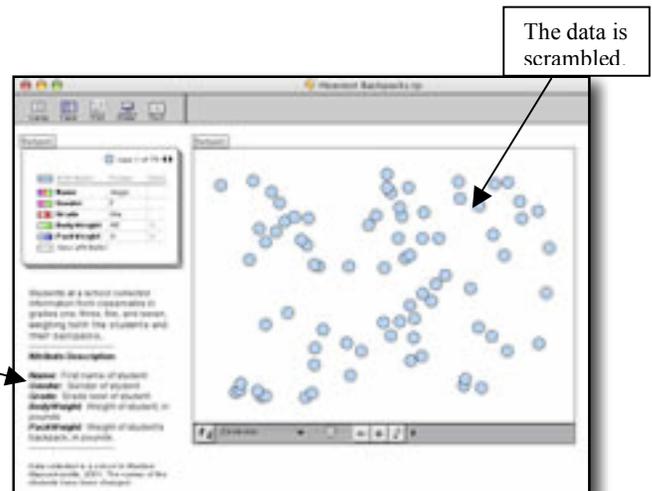Exploring Data Starters

We will look at
Heaviest Backpacks.tp

NOTE:
You will find the explanation files stored in…
TinkerPlots Ontario English
Data and Demos
Demos
Backpack Report.tp

3. Open **Heaviest Backpacks.tp**
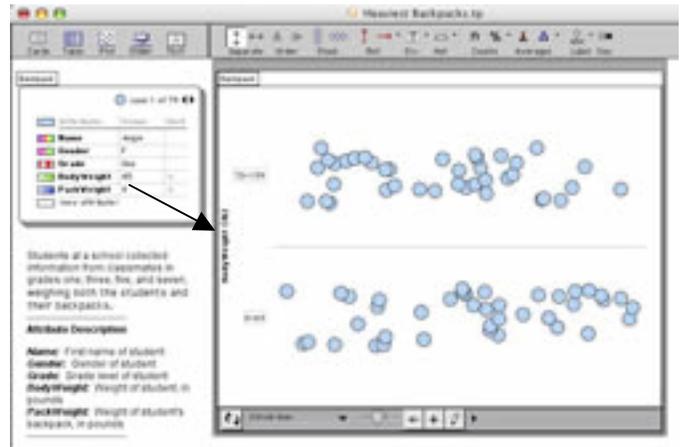
4. Look at the descriptions of the attributes.

The data is scrambled.

5. Think about the question that you want to answer… Are students carrying backpacks that are too heavy?

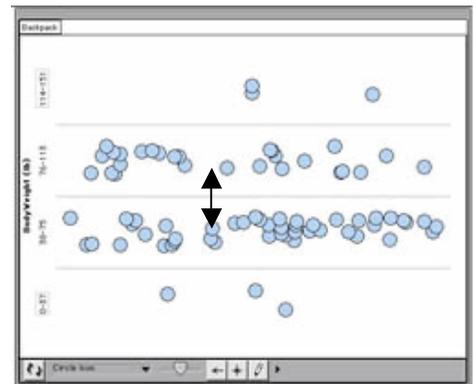6. Think about the following… "Experts say that for every 20 lbs. of body weight, you should only carry 3 lbs in your backpack. This equals 15%. Other recommendations go as low as 6% of your body weight. Doctors say that heavy loads can cause shoulder pain or lower-back pain."

7. Brainstorm for what kind of information you might want to gather… e.g. weights of backpacks, weights of students.
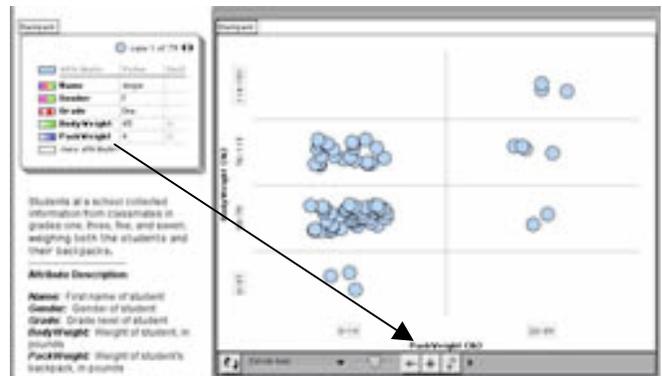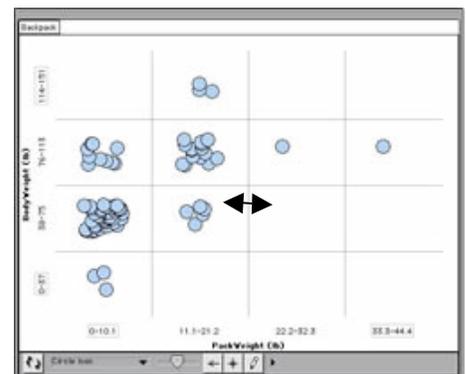
8. Move one of the attributes to the y axis.

9. Put the cursor over a horizontal line, press the mouse button and move up and down to further define the attributes.
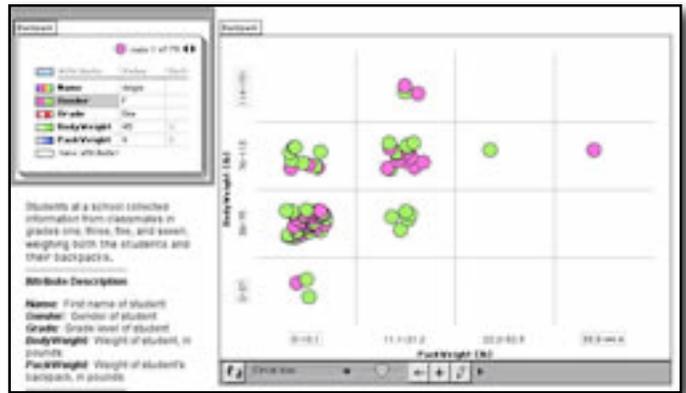

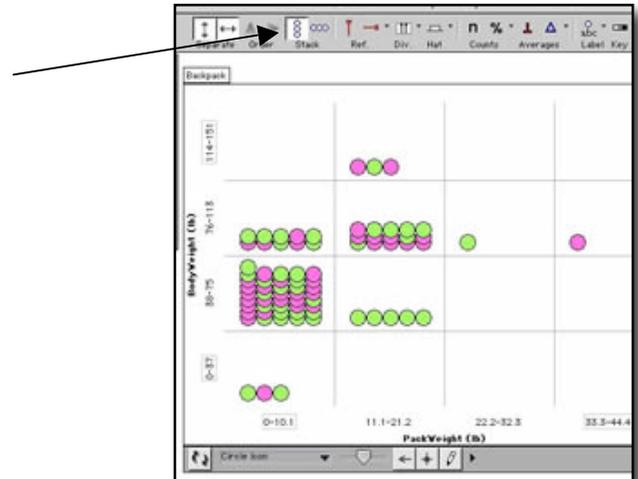10. Add an attribute to the x axis.

11. Put the cursor over the vertical line, press the mouse button and move left (and then right if you need to) to futher define the attributes.
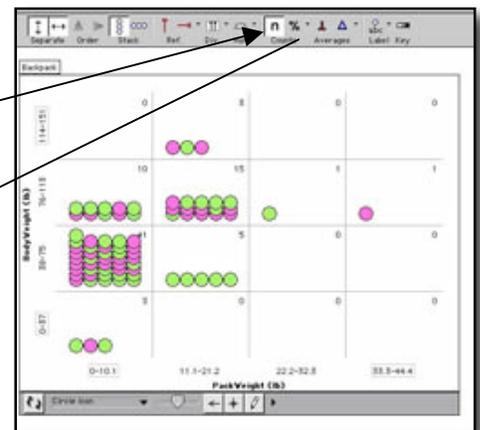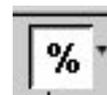
12. Click on gender to identify the males and females in the study.

13. Organize the data by clicking on stack. You can organize vertically or horizontally.

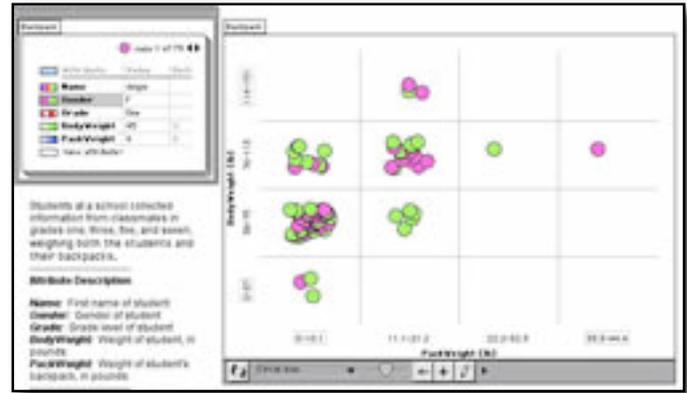14. Find out how many cases are in each section. Click on **n** for number. You can also use percent.

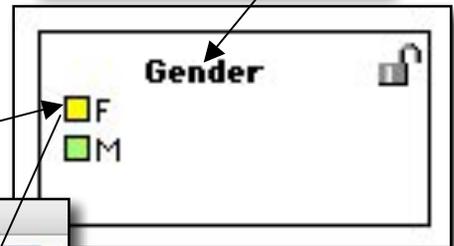15. Find the median [⊥] and the mean [△].

16. Click on one attribute that has not been selected for the x or y axis. Here gender was selected. Note that a colour has been assigned to each gender.
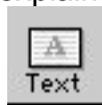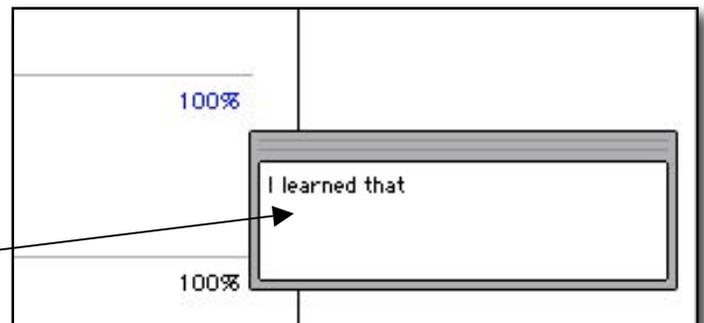
17. Add the legend.

18. Click on the coloured square to bring up the colour palette and change the colour.

Gender

□F
□M

List: Apple

Black
Blue
Brown
Cyan
Green
Magenta
Orange
Purple
Red
Yellow
White

19. Add a text box to explain the findings. Click on Text and drag the text box to the area where you want it to appear.

Averages   Label Key

100%

I learned that

100%

4

20.

Scramble the data.

Change the icon.

Change the icon size.

Drawing tool.

PackWeight (lb)

Circle Icon

Add a new case.

Drag the value.