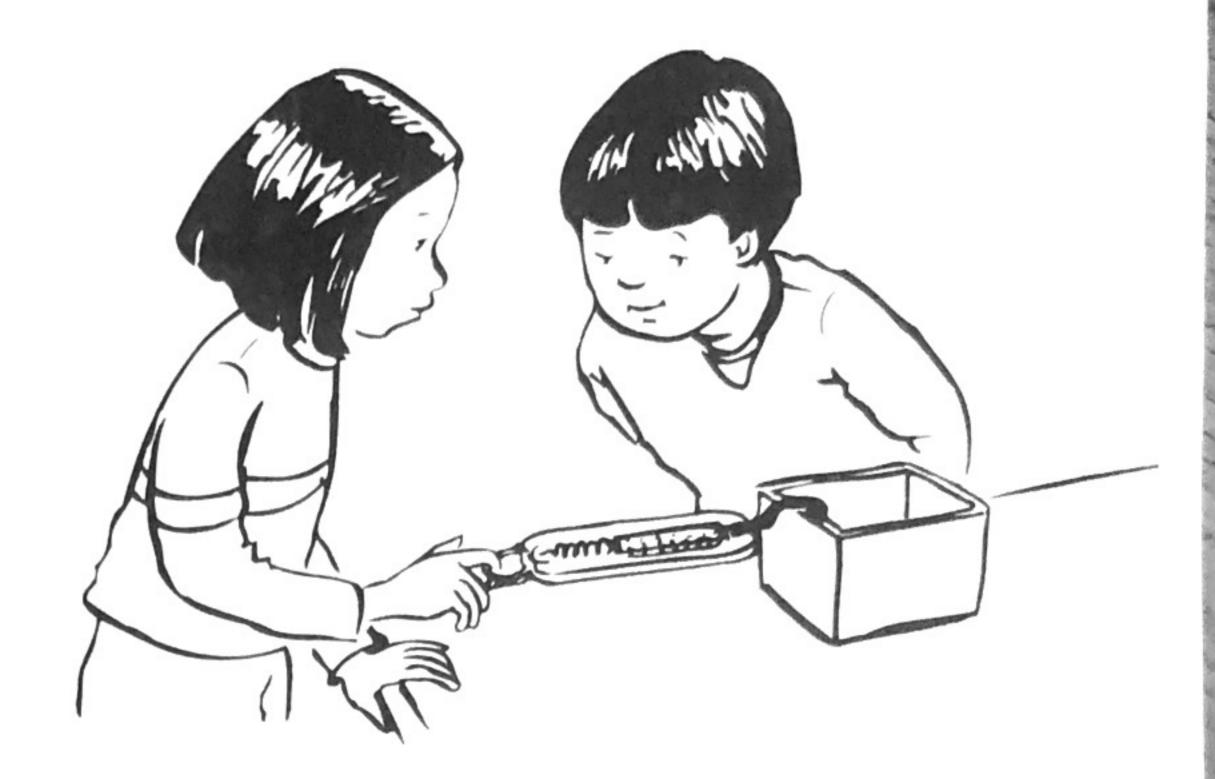
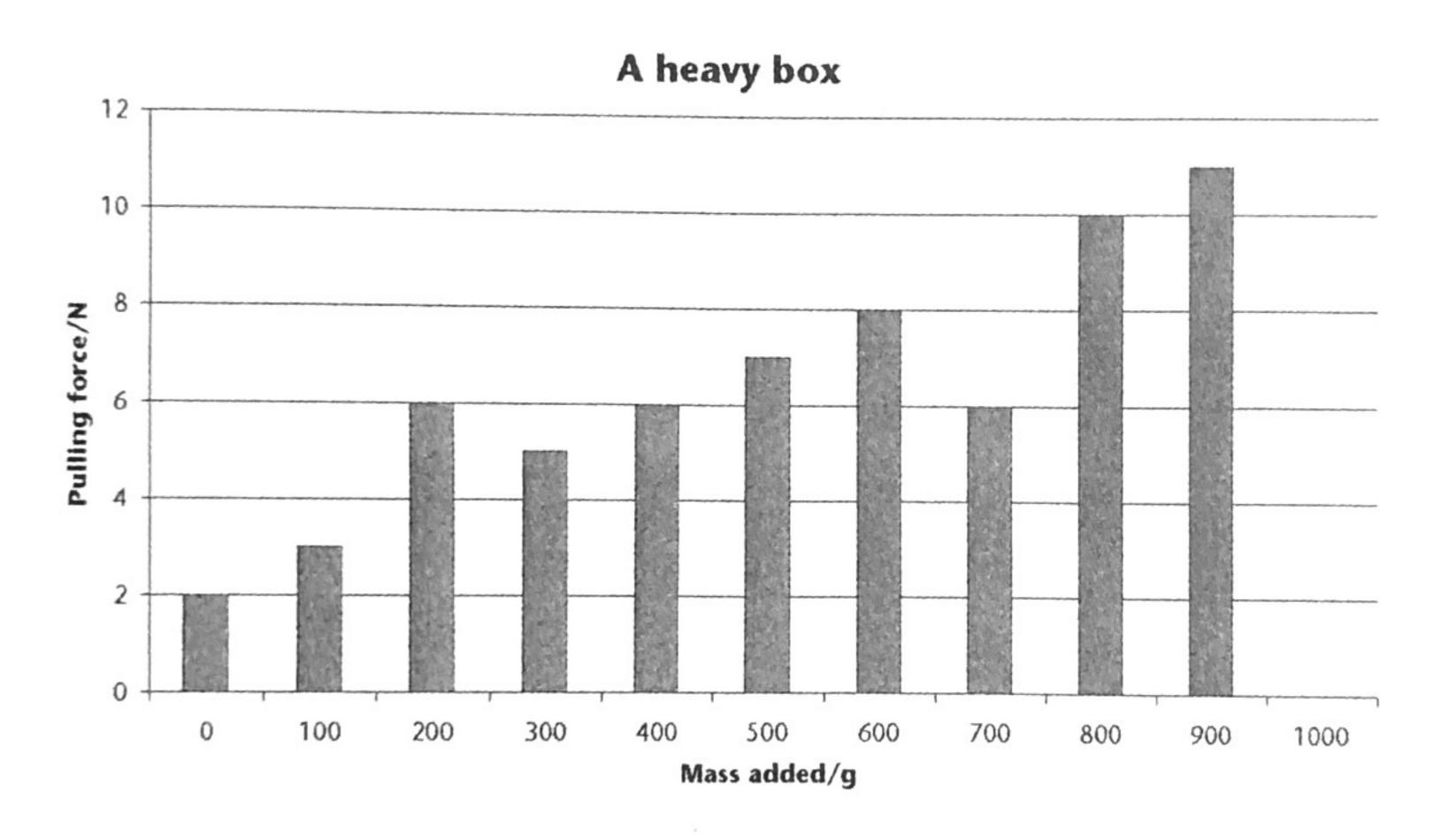
## A heavy box

Mei Tin and Chi Kin thought that a heavier box would be harder to pull than a lighter one. They put weights in a wooden box to see whether that changed the pulling force needed to move the box. They added another 100g each time.



Here is a bar graph of the children's results.



## Questions

- 1. What pulling force is needed for a) 400g b) 500g?
- 2. Which two results do you think the children should check again?
- 3. Explain how you decided this.
- **4.** What results would you expect the children to get if they tried with those two masses again?
- 5. Draw a bar to predict the result for 1000g.
- 6. What would you expect the result to be if they tried 450g?
- 7. How does the amount of mass added to the box affect the force needed to pull it?
- 8. Name two things the children should do to make their investigation a fair test.
- **9.** Why is the pulling force needed more than zero even when there are no weights in the box?