All in the Family

You need
- classmates
- a copy of the tables (see copymasters)
- a computer spreadsheet/graphing program (optional)

Activity One

Lani's family has been on a trip to an adventure park. A family pass to the adventure park covers only 2 adults and 2 children, but 3 of the 5 children in Lani's family went, so they had to pay extra.

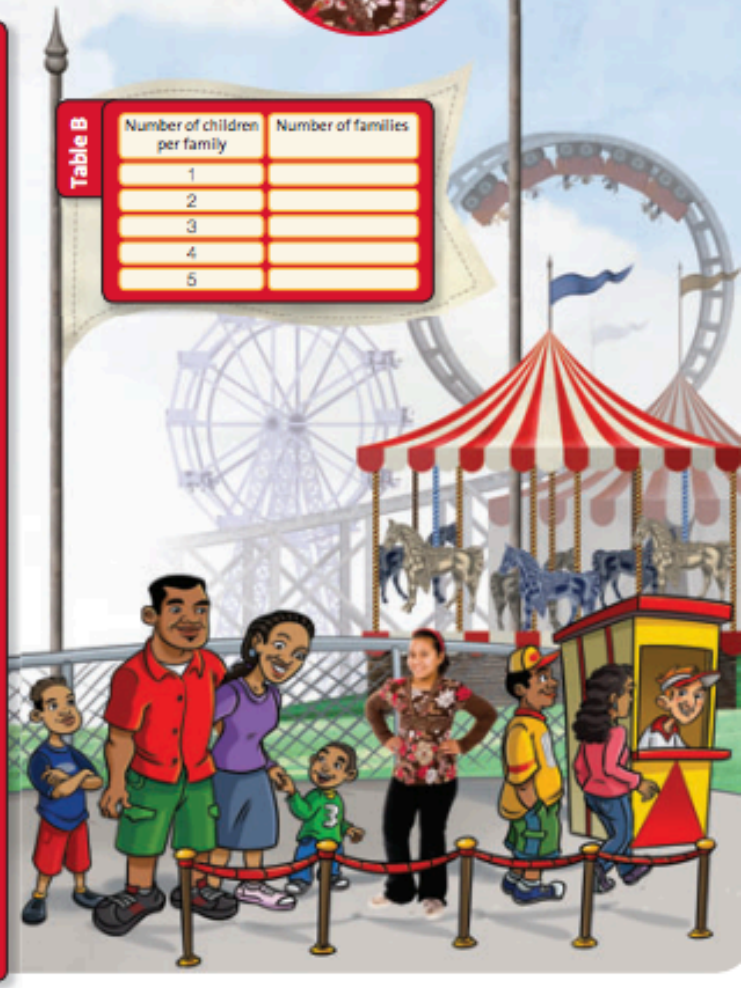
Lani decides to investigate how many children are in the families of the students in her class.

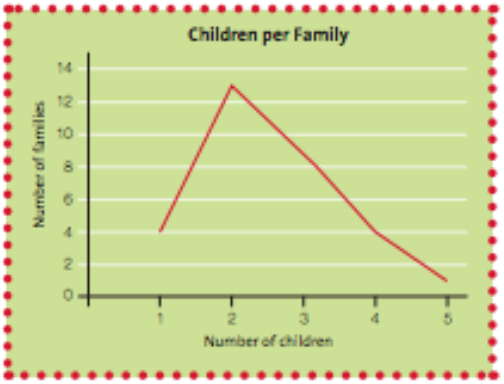
Table A

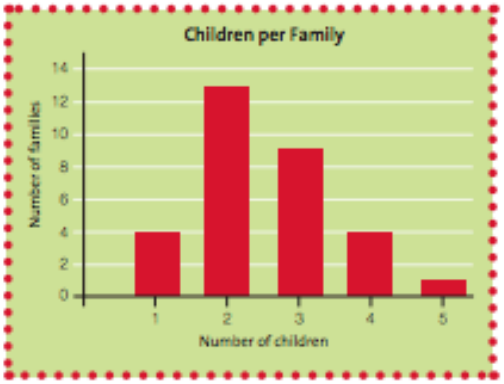
Family	Boys	Girls	Total
1	4	1	
2	0	1	
3	2	1	
4	1	1	
5	0	2	
6	2	2	
7	0	4	
8	1	1	
9	1	2	
10	0	1	
11	2	1	
12	0	2	
13	2	1	
14	1	1	
15	3	1	
16	0	2	
17	1	1	
18	1	2	
19	2	0	
20	2	0	
21	1	0	
22	2	1	
23	1	1	
24	2	1	
25	1	2	
26	0	2	
27	1	1	
28	2	2	
29	2	1	
30	1	0	
31	0	2	

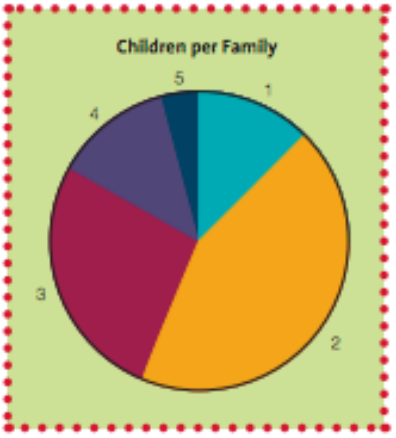
Table B

Number of children per family	Number of families
1	
2	
3	
4	
5	









a. Which graph is not suitable for displaying this kind of data?

b. Which of the other two graphs provides the least information?

3. Lani says that about half of the students in her class have 2 or more siblings (brothers or sisters).

a. Is this true, and how do we know?

b. Which graphs are best for answering this question? Why?

4. Evan says that Lani's data doesn't make it clear how many families would be affected by a family pass that only allows for 2 children.
Discuss with a classmate whether or not he is correct and why you think that.

Activity Two

Lani thinks her data can tell her something about the families of the students in her class. She draws a grid and starts by entering a tally mark for her family, which has 4 boys and 1 girl.

1. Draw and complete the grid for the families of the other students in Lani's class.

Girls \ Boys	0	1	2	3	4
0					
1					|
2					
3					
4					

2. Lani says:
   - i. "No family has 3 girls only."
   - ii. "Only 7 families have equal numbers of boys and girls."
   - iii. "Twice as many families have no boys as have no girls."
   - iv. "More than half the families have 1 girl."
   - v. "Most families have just 2 children."
   - vi. "The number of families with 2 girls is the same as the number with 2 boys."

   Using the finished grid, discuss each of Lani's statements with a classmate.

Activity Three

1. Collect sibling data from your classmates. Analyse it in different ways. (See Lani's displays for some examples.)
2. Discuss with a classmate what you have learnt about the families of the students in your class.
3. What are the main differences between Lani's data and yours?

Focus Collating, displaying, and interpreting data