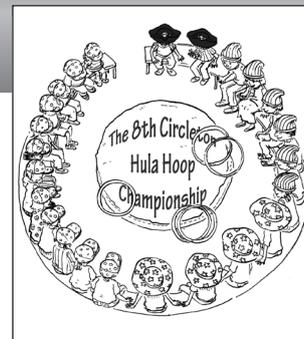


18. Hula Hoop Championship



Objectives

Interpret and construct pie charts and line graphs and use these to solve problems

I can

- I can create a table to represent information
- I can interpret the information represented in a table
- I can create a pie chart

Resources

- 24 chairs
- 4 metre sticks

Introduction

- Look at the picture together. Ask questions to help the children familiarise themselves with the information in the picture, e.g. how many supporters are there? Who has the most/least supporters? How many support Dan Dash? How many do not support Daisy Dot?
- Explain that it is the final of the Circleton Hula Hoop Championships. Each of the four contestants have their supporters. They sit around the ring, eagerly waiting for the competition to start.

Solutions

1. The table might look like this:

Name	Daisy Dot	Dan Dash	Daphne Diamond	Danny Ducat
Number of supporters	12	6	4	2

2. Daisy Dot $\frac{1}{2}$, Dan Dash $\frac{1}{4}$, Daphne Diamond $\frac{1}{6}$, Danny Ducat $\frac{1}{12}$.
 3. $\frac{2}{6}$ or $\frac{1}{3}$.
 4. $\frac{2}{12}$ or $\frac{1}{6}$.
 5. Answers will vary.

Make sure that the angle of the slices relates to the fraction of the total, 6. 50%, 25%, 17%, 8%, 7. Check slices are representative of the percentages in 6, 8. 50%, 33%, 17%, 9. Check slices are representative of the percentages in 8, 10. $\frac{2}{5}, \frac{1}{5}, \frac{2}{15}, \frac{1}{15}, \frac{1}{5}$.

- Daisy Dot's supporters all wear spotty baseball caps.
- Dan Dash's supporters all wear striped beanies.
- Daphne Diamond's supporters all wear sun hats covered with stars.
- Danny Ducat's supporters all wear pirate hats.

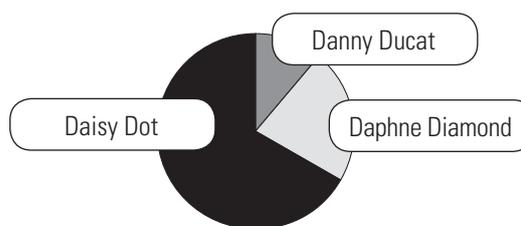
Recreate the situation in the picture using 24 chairs or children to represent the supporters sitting in a circle. Use metre sticks placed from the centre to points around the circle to divide up the circle into sections for different groups of supporters so that it looks like a large pie chart.

During the activity

1. Remind the children that they can use their division facts to calculate the fractions.
2. Encourage the children to check the reasonableness of their answers by estimating the fractions in the picture to work out the fractions of supporters.
3. Remind the children that they need headings for their table columns and a key for their pie chart.

If you have time...

1. Tell the children that Dan Dash is knocked out of the competition first. His supporters leave, their chairs are removed and the other chairs are moved into a smaller circle. Discuss how that would change the pie chart for the next round of the competition.



Maths words

pie chart, heading, key, data, table, fractions, division

Hula Hoop Championship



1. Make a table to show how many supporters each contestant has.

2. Work out what fraction of the audience supports each contestant.

3. What is the difference, as a fraction, between the supporters of Daisy Dot and Daphne Diamond?



4. What is the difference, as a fraction, between the supporters of Dan Dash and Danny Ducat?

5. Tell someone, or write down, how you could represent the information in the picture as a pie chart. Describe what the pie chart would look like.

6. Write these fractions as percentages.



7. Draw a pie chart to represent the fraction of supporters for each contestant.

8. Imagine Daisy Dot pulled out of the competition, what would the percentages of supporters be for the other contestants?

9. Draw a pie chart to show this.

10. Doreen Dumfrey entered the competition at the last minute. She had 6 supporters. Work out what fraction of the audience now supports each contestant, including Daisy Dot. Draw a pie chart to show this information.