## **Spinning games**

## **Annotation**

Arthur can use data he has gathered to inform his conclusion that one outcome is more likely than others. He chooses an appropriate method to investigate and demonstrate the fairness of a chance situation, and he can explain his thinking.

## **Problem: Spinning games**

The students play a board game that uses a spinner to determine which square they move to.



The students wondered if the spinner gives them a fair chance of landing on any of the three colours. The teacher asks the students:

How could we find the answer to this question?

## **Student Response**

Arthur completes the following tally chart:

Red	## ## ## ## ## ## ## ##	55
Blue	-1111 HH HH -1111 -1111	25
Yellow	### ### ##1 *## <del>*</del>	20
	Total	100

Teacher: Tell me some more about your thinking.

Arthur: It's not fair because you get more reds than the other colours.

Teacher: Tell me some more about that.

Well, you can just see by looking at the spinner that half is red, and just a quarter is blue, and a quarter is yellow. So I experimented with 100 spins and you can see on my tally

chart that red gets over double what blue and yellow get. That isn't fair.