Spaceman Sid

Setting the context
Spaceman Sid travels all over the universe in his spaceship. He has explored many faraway planets and has seen all sorts of things on his journeys through space. Spaceman Sid's latest mission has taken him to a planet called Planet Crit, a small planet inhabited by aliens. The aliens on Planet Crit look very strange. They all have a long antennae sticking out of their head. Attached to these antennae are the aliens' eyes. There are two types of alien: aliens with one eye and aliens with two eyes.

Problem
Spaceman Sid landed on Planet Crit. He met some aliens. Some of the aliens had one eye. Some of the aliens had two eyes. Altogether he counted nine eyes. How many of each type of alien could he have seen? Can you find all the possibilities?

Objectives
To solve mathematical problems and puzzles. To add more than two small numbers together.
To begin to show awareness of a system for finding all the possibilities.

You will need
Two copies of photocopiable page 29 for each group; one enlarged set of the alien cards from the photocopiable page (coloured and laminated); long strips of paper; Blu-Tack; ten simple alien headbands (see Preparation, below).

Preparation
Make ten headbands using stiff card (five with one eye and five with two eyes).

Solving the problem
● Tell the children about Spaceman Sid and his adventures. Select ten children to come to the front and put on an alien headband. Ask the rest of the class to imagine Spaceman Sid's reaction when he saw all these googly-eyed creatures looking up at him!
● Pick one child to be Spaceman Sid. Ask her to count the total number of alien eyes that she can see. Ask the class to suggest a different way to count the eyes. If necessary, show the children how to sort the aliens into two groups and then count the total number of eyes by counting in twos and then ones.
● Let different children try to use the strategy to count the total number of eyes that different combinations of aliens have.