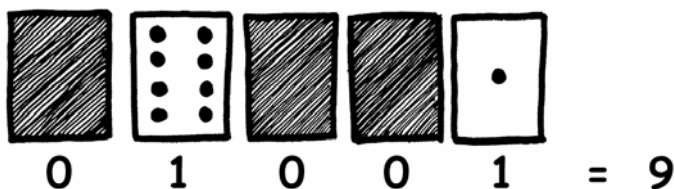# Worksheet Activity: Working With Binary

The binary system uses **zero** and **one** to represent whether a card is face up or not. **0** shows that a card is hidden, and **1** means that you can see the dots. For example:

0   1   0   0   1   = 9

Can you work out what **10101** is? What about **11111**?

What day of the month were you born? Write it in binary. Find out what your friend's birthdays are in binary.

Try to work out these coded numbers:

⊠ ☑ ⊠ ⊠ ☑ =
(☑=1, ⊠=0)

⇧ ⇩ ⇧ =
(⇧=1, ⇩=0)

○ ○ ○ ○ ○ =
(⊙=1, ○=0)

🕮🕮 =
(📬=1, 📭=0)

☹ =
(☺=1, ☹=0)

👍 👎 👍 👎 =
(👍=1, 👎=0)

+ + ✕ + =
(+=1, ✕=0)

↻ ↻ ↻ ↻ ↻ =
(↻=1, ↺=0)

▲ ▼ ▲ ▼ ▼ =
(▲=1, ▼=0)

♠ ♠ ♠ ♠ ♠ =
(♠=1, ♣=0)

Extra for Experts: Using a set of rods of length 1, 2, 4, 8 and 16 units show how you can make any length up to 31 units. Or you could surprise an adult and show them how they only need a balance scale and a few weights to be able to weigh those heavy things like suitcases or boxes!