

COMPUTING · GRADES 3–4

If This, Then That

How computers make decisions

How conditionals work

A **CONDITIONAL** is a code structure that makes a **CHOICE**. Format: **IF** [something is true] **THEN** [do this] **ELSE** [do this instead]. Computers use them constantly — to check passwords, decide game outcomes, route traffic. Real life uses them too: 'IF it's raining **THEN** take an umbrella **ELSE** take sunglasses'.

Write the conditional

1. If a student's score is 70 or more, print 'pass'. Otherwise, print 'try again'.
2. If it's a weekend, sleep in. Otherwise, set the alarm for 7am.
3. If a player has more than 0 lives, continue the game. Otherwise, show 'GAME OVER'.
4. If the temperature is below 0°C, say 'freezing'. If 0–25°C, say 'mild'. Otherwise say 'hot'. (3 branches)

Unplugged activity

In pairs: one of you is the **COMPUTER**, the other is the **CODE**. The 'code' calls out conditionals: 'IF you have brown hair, raise your right hand. **ELSE** raise your left.' The computer follows the instruction. Try 5 different conditionals each.

