

Case-Study Cards: Extreme Events

A set of four printable case-study cards for the Lesson 9 group analysis — a cyclone, a flood, a tsunami, and a heatwave — each with real data (a key figure), the cause, effects on the surface and community, and how people responded. Used to support the cause/effect/response analysis activity.

Print and cut out these four cards — one per group. Each card has a key **number**, the cause, the effects, and how people responded.

Cyclone Yasi (2011)

Key data: wind gusts around **285 km/h**.

Cause: a severe tropical cyclone that crossed the north Queensland coast.

Effects: flattened crops and trees; storm surge eroded beaches and flooded towns.

Response: early warnings and evacuations meant no direct deaths from the storm.

Eastern Australia Floods (2022)

Key data: some rivers reached **record heights over 14 m**.

Cause: weeks of heavy rain across NSW and Queensland.

Effects: thousands of homes flooded; moving water eroded soil and roads.

Response: emergency services rescued residents; levees and warnings used in later events.

Indian Ocean Tsunami (2004)

Key data: a **magnitude 9.1** undersea earthquake; waves up to **30 m** high.

Cause: the seafloor suddenly lifted, pushing a huge volume of water.

Effects: coastlines reshaped; widespread damage across many countries.

Response: a network of **warning buoys** was built to alert coasts in minutes.

Black Summer Heat & Drought (2019–20)

Key data: Australia's hottest year on record, with days over **45°C**.

Cause: extreme heat and a long drought dried out the land.

Effects: raised bushfire risk; stressed plants, animals and water supplies.

Response: fire bans, water restrictions and total-fire-ban warning days.

For your group's card, find the cause, two effects, and one response — and pick out the key number to share with the class.