

The 2010-11 Queensland floods

Lesson Map: <http://esriaustralia.com.au/education/SpatialActivity89>

Engage

What were the primary causes of the 2010-11 Queensland floods?

- ➔ Click on the URL above to open the lesson's Story Map, titled *The 2010-11 Queensland floods*. Scroll down to get started.
- ➔ Read the section titled *Overview*.
- ➔ Scroll down to bring up the next section, titled *Causes and flood events*. Read the information. Take notes if required.
- ? As you read the information under, complete the table below:

Timeline	Events occurring
Spring (Oct – Nov)	<ul style="list-style-type: none"> • <i>Normal Spring rains occurred</i>
Spring into Summer (Nov – Dec 2010)	<ul style="list-style-type: none"> • <i>Due to a seasonal monsoon, November, and December experienced high amounts of rainfall</i> • <i>This was magnified further by a La Nina event</i> • <i>December average rainfall was highest on record (209.45mm), more than double the long-term average</i>
Early January 2011	<ul style="list-style-type: none"> • <i>The La Nina continues to contribute to high levels of rainfall</i> • <i>Major rainfall occurred in SE QLD between the 6th and 12th of January</i>
Monday 10 January 2011	<ul style="list-style-type: none"> • <i>Toowoomba and Lockyer Valley suffer from severe and devastating flash floods</i> • <i>Toowoomba's city centre flooded</i> • <i>Towns, properties, and fields flooded or washed away</i> • <i>23 people drowned, 9 missing</i>
Tuesday 11 January 2011	<ul style="list-style-type: none"> • <i>Wivenhoe Dam reaches 191% of its normal water storage capacity</i>
Wednesday 12 January 2011	<ul style="list-style-type: none"> • <i>Dam operators discharge water from Wivenhoe Dam</i> • <i>By 5pm, the Brisbane City water gauge registered that the river had reached 4.30 metres, signifying a major flood event</i>
Thursday 13 January 2011	<ul style="list-style-type: none"> • <i>By 3am, the Brisbane City water gauge peaked at 4.46 metres</i> • <i>Brisbane City experiences a major flood event</i>

Download student worksheet [here](#).

Time

60 minutes

Activity

Investigate the causes, impacts and responses to the 2010-11 Queensland floods.

Learning Outcome

Students will be able to:

- Identify and explain key causes that contributed to the 2010-11 floods
- Observe and explain the 2010-11 floods from a temporal and spatial perspective
- Identify and explain social and economic impacts on people and places
- Describe community and government responses to the 2010-11 floods

ACARA Curriculum Link

Year 7 Geography: *Water in the World*

ACHGK042 | ACHGS051 | ACHGS053

Teacher Feedback:

To share your feedback on this, or any Spatial Activity, please contact education@esriaustralia.com.au

? Define the following terms:

- Monsoon (*A seasonal prevailing wind that brings rains to a region.*)
- La Nina (*A climate driver that brings increased rainfall, cooler daily temperatures, and greater cyclone numbers across much of Australia.*)

→ After you have read the section titled *January's second major flood event*, engage with the map. Use the slider to view the Brisbane River under normal flow conditions (left) and the extent of the flooding (right). The yellow pins symbolise suburbs where major flooding occurred. You can zoom in on these areas for a closer look.

→ You can also take the time to view several satellite images of how the floods changed the landscape of Brisbane.

- Brisbane River Satellite Imagery
- The flooding of Rocklea, a suburb in Brisbane's south
- The flooding of Suncorp Stadium
- The flooding of Milton, an inner-city suburb of Brisbane

Explore

What were the social and economic impacts of the floods?

→ Scroll down to the section titled *Impacts*. Read through the *Social impacts*. Take notes if required.

? Observe the map slider depicting the *Southern Brisbane suburbs before and after the flood*. What types of land use were affected by the floodwaters in this area?
[Residential land use (housing) was significantly affected in this area. Parks and sporting fields were also completely inundated, as well as roads and streets. It also appears that a shopping centre was partially flooded in the bottom-right corner of the image.]

→ Scroll down to the section titled *Economic impacts*. Take notes if required.

? After the floods in Brisbane, insurance companies changed the insurance policies they offered to customers. Some insurance companies no longer covered flooding, while others made it an optional extra. Why do you think they did this? In your opinion, is this fair? Why/why not? *[Insurance companies likely made these changes to their insurance policies as they were forced to pay out substantial payments to their customers. This would have been a huge expense to the insurance companies, and some probably had to close due to financial pressures. (Second part of question*

will vary depending on student perspective).]

- Watch the video titled *Queensland Flooding 2010-2011* to learn about how the floods affected Queensland Rail's transport infrastructure.

Explain

How did communities and governments respond in the aftermath of the floods?

- Scroll to the next section: *Responses*. Read the information. Take notes if required.
- ? Summarise the community response to the Queensland floods. [*Student answers will vary but should refer to volunteer work, recovery services and monetary aid.*]
- ? Summarise the government's response to the floods. [*Student answers will vary but should refer to the Independent Commission of Inquiry and some of its key points / findings.*]

Extend

Revisiting the floods 10 years later

- Watch the 7 News report, which revisits the 2010-11 floods in a special 2021 report.

Next Steps:

Request a free ArcGIS Online Account for your school:

Australian schools can request a free ArcGIS Online account as part of Esri Australia's Classroom GIS Initiative. A school subscription provides additional map layers, content, features and privacy.

Learn more about ArcGIS Online, and apply for your ArcGIS Online School subscription at <http://esriaustralia.com.au/education>