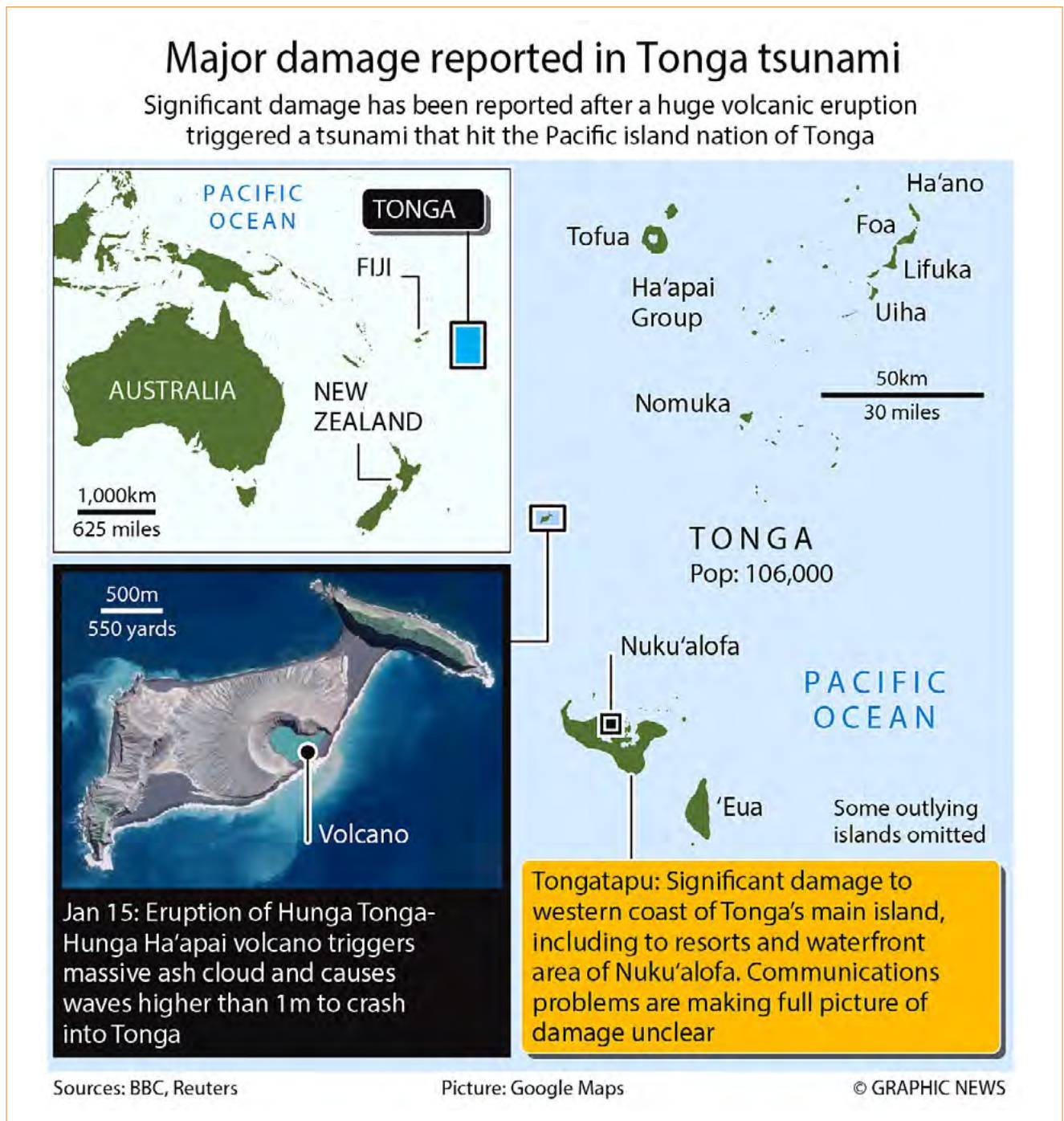


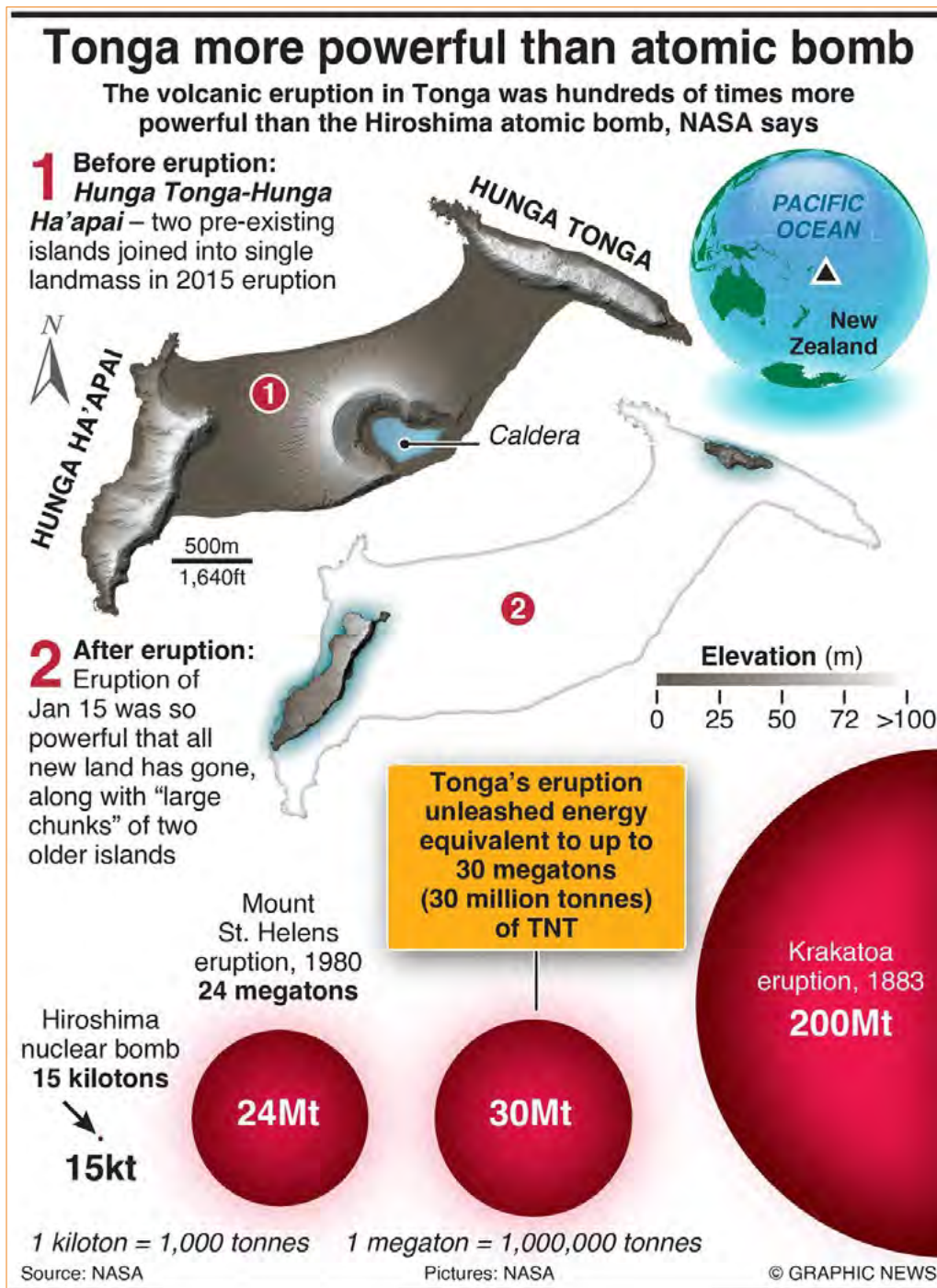
TONGA: SKILLS DEVELOPMENT

SOURCE A



1. Use SOURCE A to measure the following
 - a. The distance between Tonga and the closest point on the Australian coastline?
 - b. The distance between the main island of Tonga (Tongatapu) and Hunga Tonga – Hunga-Ha'apai
 - c. The dimensions of Hunga Tonga-Hunga-Ha'apai (length and breadth)
2. Refer to the article 'Why the volcanic eruption in Tonga was so violent, and what to expect next.'
 - a. Identify the two hazard events that occurred in Tonga during January 2022.
 - b. Complete a timeline of volcanic events using the following dates.
 - 2009
 - 2014/15
 - December 20, 2021
 - January 13, 2022
 - January 15, 2022

SOURCE B



Refer to SOURCE B and the following weblinks:

- The Guardian: Tonga volcano: a visual guide to the eruption and its aftermath <https://www.theguardian.com/world/2022/jan/17/tonga-volcano-a-visual-guide-to-the-eruption-and-its-aftermath>
- Washington Post: What you need to know about the Tonga volcano and the Pacific's 'Ring of Fire' <https://www.washingtonpost.com/world/2022/01/17/tonga-volcano-eruption-tsunami-damage/>

Describe the cause and impact of the volcanic eruption on 15 January 2022.

In your answer you should refer to:

- Earth's tectonic plates
- Volcanic eruptions and tsunami
- Impacts on Tonga
- Impacts on other places

Include at least one diagram in your answer.

SOURCE C



Source: Contains modified Copernicus Sentinel data, 2016 [CC BY-SA 3.0-igo]WikimediaCommons.org.)

Use SOURCE C to complete the following activities

1. Create a sketch map of the main island of Tonga in the satellite image
2. Create a KEY to show the following on your map:
 - urban areas (towns)
 - main roads and the airport
 - agricultural land
3. Use a mapping tool such as Google Earth or Google Maps to complete the following:
 - *Orientation:* Put an arrow showing North. (Look for the North direction on your digital map.
 - *Scale:* Create a line scale for your map (Measure the width of the island in kilometres using the measuring tool on your digital map.

Then measure between the same points in cm on your sketch map. This many cm represents the km you measured using the mapping tool. Reduce to 1cm represents a number of km)

4. Refer to:
 - 'The Tonga volcanic eruption has revealed the vulnerabilities in our global telecommunication system' in this issueand / OR the following weblink:
 - Broken Cable Shuts Down Tonga's Internet (News for Kids) <https://newsforkids.net/articles/2019/01/27/broken-cable-shuts-down-tongas-internet/>

Explain why communications between Tonga and the outside world were disrupted after the 15th January 2022 eruption and tsunami.