

MOUNT MANGERE VOLCANO QUESTION
& ANSWER SHEET

(See accompanying map for stop locations)



STOP 1 - On edge of main crater.

How was the crater formed?

Can you see a small hill inside the crater? How might it have been formed?

What are the crater rim and slopes made of?

Why did the lava form two different kinds of rock?

When did Mt Mangere erupt?

STOP 2 - Higher ground to the north on edge of second deep crater.

How was this second crater formed ?

Was it likely to have been older or younger than the main crater ? How can you tell?

How were all the small pits here on the crater rim formed? Were these pits used for anything?
What shape are they? How long ago were they formed?

STOP 3 - Head back southeast.

Lava bombs. How were they formed and how did they get their shape?

Find a lava bomb and sketch it. Draw a line scale next to it to show its actual size.

STOP 4 - Steep climb up to top crater rim to look out at the view.

Look for Otara gas-fired power station, Hunua Ranges, Coromandel Ranges (on a clear day), SW motorway, Airport flagpole, Glenbrook steel mill (Waiuku).

Why is the soil on the flats around Mt Mangere red brown in colour?

Where did the prehistoric Maori people grow their crops? Why?

Until recently the flats were used for market gardening for Auckland city, why have the market gardens now mostly gone?

STOP 5 - Highest part of southwest crater rim, overlooking Mangere Lagoon explosion crater

Forty years ago you could see at least seven scoria cones from here. Where have most of them gone? Sketch Mangere Lagoon and surrounding area. Label Puketutu Island and Mangere Lagoon explosion crater, the sewerage works and Ambury Park riding for the disabled centre. What was the Manukau Harbour like when Mt Mangere erupted about 20,000 years ago?

STOP 6 - Western trig.

What is a trig station used for? How high is the trig station above sea level? 20m? 50m? 100m? 150m?

Look for Ambury Park situated on lava flows from Mt Mangere, which direction is it from Mt Mangere?

What is the name of the hills forming the skyline in the distance?

Locate the Manukau Heads / Harbour entrance and Awhitu Peninsula.

Sketch a view, looking to the east, of the main crater, the small dome inside it, the small explosion craters (so-called fire pits) around its base. Is the main crater intact? If not why not?

(sketch)

STOP 7 – Flat site of former water reservoir (now removed).

Look at the view. Name the volcanic scoria cones you can see from left to right. Can you see an explosion crater? What is its name?

Walk up to the second trig. Why are there two trigs so close to each other?

STOP 8 - Grass-covered track.

Start the return to the carpark using the roadway below the western trig. About halfway down below the western trig look out for a shell midden and an iron plaque next to the track. Using the plaque and your own observations of the midden list the types of food gathered by the Maori who lived on Mount Mangere.

Field Trip Map

