Magma Drillers Save Planet Earth – key terms

The following words are important to know for your mission to the Krafla volcano. Use your knowledge, the context sentences, the [LEARNZ site](https://www.learnz.org.nz/naturalhazards183/glossary) or another source to help define the key terms.

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| **Term** | **Definition** | **In context** |
| Magma |  | The magma can have temperatures of over 900 ⁰ C. |
| Lava |  | The lava flowed down the side of the volcano. |
| Ash (Volcanic) |  | The ash spewed from the volcano as it erupted. |
| Caldera |  | A huge lake formed in the caldera of the volcano. |
| Geothermal |  | Power plants near Taupo use geothermal energy to produce electricity. |
| Fumarole |  | Super-hot (and smelly) gas was coming from the fumarole. |
| Magma Chamber |  | The magma chamber was deep under the volcano. |
| Geophysical |  | The satellite helped to create a geophysical map of the area. |
| Seismic wave |  | The geologist was measuring the seismic waves produced by the earthquake. |
| Clay |  | The ground in this valley was mostly made of clay. |
| Aquifer |  | They were drilling a well into the aquifer. |
| Hazard |  | Landslides are a large hazard to roads in New Zealand. |
| Infrastructure |  | There was a lot of infrastructure to support the power plant. |
| Risk |  | Building near the bottom of the cliff meant there was the risk of falling rocks. |



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For teachers: example answers

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| **Term** | **Definition** | **In context** |
| Magma | Molten rock beneath the surface of the earth. | The magma can have temperatures of over 900 ⁰ C. |
| Lava | Magma becomes lava when it erupts onto the Earth’s surface. | The lava flowed down the side of the volcano. |
| Ash (Volcanic) | Volcanic ash consists of volcanic rock that has shattered to very small pieces during an eruption. | The ash spewed from the volcano as it erupted. |
| Caldera | A large depression in the ground formed when magma is erupted from a shallow magma chamber. The rock around the area collapses to form a large bowl-shaped basin. | A huge lake formed in the caldera of the volcano. |
| Geothermal | Heat generated from deep within the Earth. They are often associated with volcanic activity. | Power plants near Taupo use geothermal energy to produce electricity. |
| Fumarole | A vent (hole in the ground) that emits hot gases into the air. Often indicates magmatic activity below ground. | Super-hot (and smelly) gas was coming from the fumarole. |
| Magma Chamber | A reservoir of magma that is found in the crust of the Earth (not in the mantle). | The magma chamber was deep under the volcano. |
| Geophysical | This is the process of using physics (electricity, magnetism, etc.) to investigate what the ground looks like under the surface. | The satellite helped to create a geophysical map of the area. |
| Seismic wave | The waves of energy released by an earthquake. | The geologist was measuring the seismic waves produced by the earthquake. |
| Clay | A particle of mineral that is very small and can be soft and sticky when wet, but very brittle when dry. | The ground in this valley was mostly made of clay. |
| Aquifer | A layer of rock underground that can store large amounts of freshwater. | They were drilling a well into the aquifer. |
| Hazard | Something that can cause harm to people, buildings or the environment. | Landslides are a large hazard to roads in New Zealand. |
| Infrastructure | The buildings, roads, pipes, power lines, etc. that are needed for a city or facility to function. | There was a lot of infrastructure to support the power plant. |
| Risk | The chance of a hazard causing harm. | Building near the bottom of the cliff meant there was a high risk of falling rocks. |

