1. What technological devices are used to detect volcanoes.

Scientists monitor active volcanoes to ensure the loss of life and property that can occur when a volcano erupts is decreased and to reduce the disruption to aviation flight paths. The technological devices that scientists use to detect volcanic activity include earthquake seismology, gas, thermal and surface changes to the volcano which usually precede impending eruptions (United States Geological Survey 2012). A volcano’s history of eruptions may also be used to determine when it will erupt again, but “...sometimes there is no clear relationship in the length of time between eruptions and the nature of the eruptions” (Geoscience Australia n.d.). With the improvements in computer technology, the majority of data about volcanoes is collected from a range of instruments as shown in Figure one (United States Geological Survey 2012) which scientists use to monitor and make decisions about volcanic activity. Earthquake seismology around volcanoes can show that magma is moving beneath a volcano. Gases released at or near a volcano may be an indicator that the magma chamber is refilling and temperature changes in water close to the volcano can indicate an impending eruption as can small changes to the shape of the volcano which can also indicate that magma is rising (One of these days... 2014). If a volcano begins to show new or unusual signs of activity, scientists may visit the volcano to collect additional information (Kramer 2005, p. 21).

![Figure 1](types-of-monitoring-techniques.png)

Figure 1  
Types of Monitoring Techniques  
Reference List


