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For this term project, I will be researching and discussingthe significance of the W. M. Keck Observatory. Located near Mauna Kea, a dormantvolcano in Hawaii, the W.

M. Keck Observatory is well known for its design anddiscoveries of exoplanets as well as galaxies at the edge of the universe (DeVorkin). Keck’s 10-meter twin telescopes were built using 36 hexagonal segments ofglass-ceramic material that perform similar as if one were to use a singlemirror (DeVorkin). Given the blurring effects of the atmosphere, Kecktelescopes became the first in the world to use an adaptive optics system whichallows it to alter the shape of the telescope mirror according to changes in theatmosphere (“ Keck Observatory”).

As a result, the telescope is capable ofmaking images 10 times clearer compared to observing without the system (“ KeckObservatory”). With a number of notable discoveries, Keck’s twin telescopes havemainly focused on observing the movement of planets around other stars. One ofthe most significant discoveries made was the transit of HD 209458, which wasthe first planet to appear eclipsing its star (Wittenmyer). Another prominentdiscovery was a group of small dwarf galaxies orbiting a much larger galaxycalled Andromeda galaxy (“ Keck Observatory”). This shed a new light on howgalaxies form and evolve over time as well as their structure and size (“ KeckObservatory”). To conclude, I will be recording an audio clip of me providinggreater detail on the significance of the W.

M. Keck Observatory.