

Essays park

[Design](#)



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

M. Keck Observatory is well known for its design and discoveries 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 of glass-ceramic material that perform similar as if one were to use a single mirror (DeVorkin). Given the blurring effects of the atmosphere, Keck telescopes became the first in the world to use an adaptive optics system which allows it to alter the shape of the telescope mirror according to changes in the atmosphere ("Keck Observatory").

As a result, the telescope is capable of making images 10 times clearer compared to observing without the system ("Keck Observatory"). With a number of notable discoveries, Keck's twin telescopes have mainly focused on observing the movement of planets around other stars. One of the most significant discoveries made was the transit of HD 209458, which was the first planet to appear eclipsing its star (Wittenmyer). Another prominent discovery was a group of small dwarf galaxies orbiting a much larger galaxy called Andromeda galaxy ("Keck Observatory"). This shed a new light on how galaxies form and evolve over time as well as their structure and size ("Keck Observatory"). To conclude, I will be recording an audio clip of me providing greater detail on the significance of the W.

M. Keck Observatory.