



## CyGaMEs Selene Three-star Badge Earth and Space Science

### *The earner of this badge has:*

1. Completed the CyGaMEs multi-award-winning instructional environment *Selene: A Lunar Construction GaME*. This accomplishment required two to ten hours (and sometimes more) of effortful concentration and problem solving.
2. Discovered how to construct the Earth's Moon and then replicated 4.5 billion years of lunar history, peppering the moon with impact craters and flooding it with lava flows.
3. Discovered and correctly applied three fundamental Earth and space science concepts involved in lunar and planetary accretion: mass, heat, and radiation.
4. Successfully controlled an integrated system of 27 Earth and space science phenomena.
5. Exhibited an academic mindset and perseverance while solving conceptually complex system.
6. Worked hard and worked smart – behaviors that are critical for 21st Century success.

### **Related Activities:**

Log back into *Selene* <http://selene.cet.edu> and meet all seven *Selene* goals to earn the 7-star lunar geology badge. Discover and successfully apply all seven *Selene* geological processes: heat, radiation, density, mass, impact cratering, volcanism, and lava placement. The *Selene* game system of 100 connected concepts aligns with the Next Generation Science Standards for Earth and space science.

### **Current Activities:**

CyGaMEs *Selene: A Lunar Construction GaME* website: <http://selene.cet.edu>



This activity required a minimum of 2 to 5 hours.