





NORTHERN NIGHT LIGHT LANDSCAPES



Known as "Aurora Borealis" in the north and "Aurora Australis" in the south, the northern lights are a natural display in the Earth's sky, predominantly visible in the high-latitude regions around the northern and southern poles.

Participants will learn about what creates the northern lights, specifically which type of gas particles release which colors when colliding with charged particles from the sun. They'll use this information to create their own landscape designs complete with their own interpretation of the bright dancing lights of the aurora.









PLANETARY PROBABILITIES



Join us in our search for aliens as we construct one of kind life forms to inhabit the galaxies beyond our reach. Participants will learn about the Drake equation, developed to determine the odds of finding intelligent life in the universe, and then explore various star systems captured by the Hubble Telescope.

Drake Equation



Image curtesy of the Search for Extraterrestrial Intelligence (SETI) institute.

Participants will then construct their own forms of intelligent life who may inhabit these galaxy clusters, relying on the probability of rolling a specific dice number to secure each part of their extraterrestrial being.





BLACK HOLE BOOMERANG

Join us as we explore the concept of black holes, regions of spacetime exhibiting a gravitational field so strong that nothing can escape from them. The first image of a black hole (M87*) was recently captured by the Event Horizon Telescope, a planet-scale array of eight ground-based radio telescopes forged through the international collaboration of various space agencies.

Black Hole Regions

VRIMOSIL.





Image curtesy of Event Horizon Telescope

While the opening of black holes are now visible to the human eye, no one knows what happens once you enter. Participants will theorize where items that enter a black hole travel and will design what it looks like on the other side of the tunnel.



VRIMOBILE

Star Finde

SOUTH

OH MY STARS!

Join us as we explore the cosmos by mapping the stars in the sky. Participants will first construct their own star finder and learn how to position it to discover different constellations throughout the year visible from their own backyard. They will then map out an entirely new constellation, adding it to their star chart while constructing a new design around their star outline.



Canadä





Join us as we go whizzing through space and around the sun on the tails of a comet. A mixture of ice, carbon dioxide, dust and other gases, comets are surrounded by a large cloud of gas and dust which compose their tail. As comets approach the sun in their orbit they heat up and their tail gets longer, splitting into two - gases and dust.

Participants will experience this phenomenon first hand, using three dimensional geometry to build their own comet wind socks; adding separate tails to help detail a comets path through space.

