## BRIXOLOGY ULTIMATE

Engineers solve the problems that make our modern world work!In the Brixology 2 camp. there will be days on Creatures, Machines, Towers, and Vehicles. In the 5 day camp, we will have an extra build. Campers will work with a partner to build with LEGO®s and then work to make their creation better! These are completely different builds than are in Brixology Elemental.

**Creatures:** Discover nature's engineering secrets as we investigate biomimicry! We can learn a lot about efficient design from observing plants and animals. Build a walking insect machine then test different ways to help it climb up the steepest branch. <u>Take home: Peacock Puzzle</u>

**Machines:** Engineering is creative! Learn how gears, levers, and pulleys are useful tools for mechanical engineers. Combine them with art and design to create and test a motorized drawing machine. <u>Take home: Sky Roller</u>

**Towers:** Reach for the sky! Find out how structural engineers use idea from physics to solve problems. Work together to build a structurally sound tower with a working elevator; then test and improve your design for strength and stability. <u>Take home: Sky Beams</u>

**Boats:** Create a sea-worthy vessel as you set sail with nautical engineering! Build and test a boat powered by potential and kinetic energy. Then try changing specific variables to improve speed, buoyancy, and stability. Take home: Wave Rider

5 day camps will add on an extra build. The campers will work with partners to build their design. They will each get a take home at the end of the day that has to do with that day's theme. Unfortunately due to the high cost of rather involved LEGO® projects, they cannot take home the build that they do in class.

Please call us with any questions 801 292 8646