



## DETERMINING HOW MICROGRAVITY AFFECTS WATER PURIFICATION VIA A COAGULANT-FLOCCULANT

**SCHOOL:** MCNEIL HIGH SCHOOL

**VEHICLE:** BLUE ORIGIN 17

**GRADES:** HIGH SCHOOL

NASA  
**TECHRISE**  
STUDENT CHALLENGE

### EXPERIMENT DESCRIPTION

Our experiment measures the effectiveness of a coagulant-flocculant purifying powder against gray water in microgravity. Water purification by coagulant could possibly save time, money, and energy in deep space explorations. Upon microgravity, we plan on releasing the powder via a spring-loaded modified syringe to mix with the water in a magnetic mixing chamber. The team will observe how flocculation is affected by gravity since it depends on gravitational forces to sink dense sediment groups.