



SHEAR THICKENING FLUIDS AS A SAFETY MEASURE IN SITUATIONS OF RAPID DECOMPRESSION AND DECELERATION



SCHOOL: BASIS PHOENIX

LOCATION: PHOENIX, AZ

FLIGHT PROVIDER: WORLD VIEW

GRADES: HIGH SCHOOL

STUDENT EXPERIMENT DESCRIPTION

Our experiment aims to test the effects of pressure on shear thickening fluids at a high altitude for applications of safety mechanisms for flights. We hypothesize that under conditions of rapid depressurization, the shear thickening fluid will expand and solidify, and then return to its original liquid state. Our inspiration was to help better protect astronauts and pilots and are excited to learn how to translate our experiment blueprints into physical representations.