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Major Areas of Study

Biotechnology: Like peering under the hood of a car, basic research into the structures of proteins and cells help us understand how diseases work and may help chart a path to recovery. (Space-grown insulin crystals)

Combustion: Modern society depends on fire in many forms, yet we still are just grappling with the basic physics and chemistry of how it works—and how we might control it better. (Candle flame on Earth and in space)

Fluid Physics: Freed of gravity's effects, materials in freefall behave differently and illuminate crucial details from soil liquefaction in earthquakes to fluids in cooling systems for planetary spacecraft. (Boiling in space)

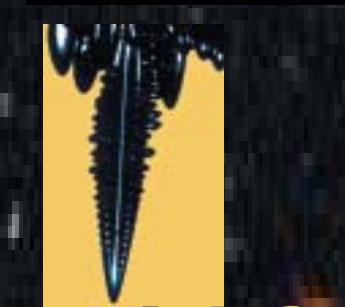
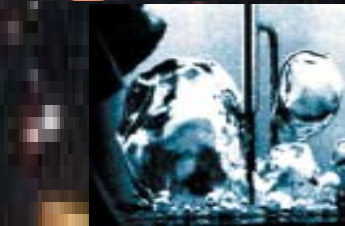
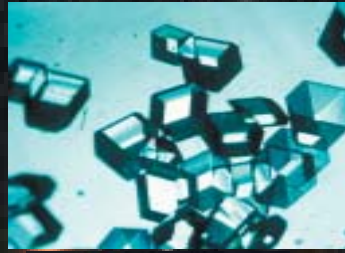
Fundamental Physics: In microgravity, matter changes form and behavior, revealing basic laws of nature that lie behind the complex workings of our world. (Condensation patterns in laser-cooled atoms)

Materials Science: Research in orbit on the growth of crystals, glasslike metals, and other supermaterials will power industry of the 21st century. (Metal-like dendrites grown in space)

μg : The prefix micro (μ) is derived from the original Greek *mikros*, meaning small. By this definition, a microgravity environment is one in which the apparent weight of a system is small compared to its actual weight due to gravity



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Microgravity opens a new universe of possibilities



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