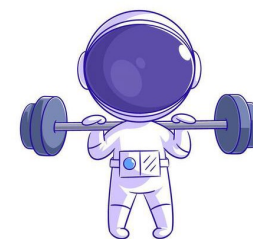




NASA eClips™ Resources
Supporting
Health and Life Science

Keeping Healthy in Space

<https://science.nasa.gov/eclips/>



Videos

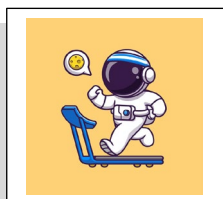
Learning from NASA Subject Matter Experts



Our World: Exercise in Space

[Our World: Exercise in Space - NASA Science](#)

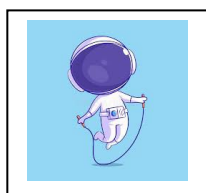
Find out why exercise is so important to the astronauts who travel into space. Learn how gravity affects our bodies and what astronauts must do in reduced gravity environments to keep their bodies healthy.



Our World: Exercise Equipment

[Our World: Exercise Equipment - NASA Science](#)

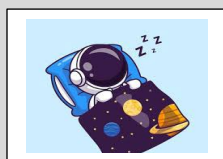
Learn about the exercise equipment used by the astronauts in space to keep astronauts fit and healthy. Compare this equipment to the exercise equipment we use here on Earth.



Our World: Fluid Shift

[Our World: Fluid Shift - NASA Science](#)

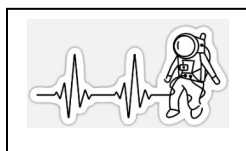
Learn about the circulatory system and how gravity aids blood flow in our bodies here on Earth. Find out how NASA flight surgeons help the astronauts deal with the fluid shift that happens during spaceflight.



Our World: Sleeping On-Board the International Space Station

[Our World: Sleeping On-Board the International Space Station - NASA Science](#)

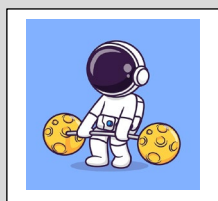
Join astronauts on board the International Space Station, or ISS, to learn about living in space. Explore the inside of a Temporary Sleep Space, or TESS, and see the astronauts' sleeping bags. Learn how the astronauts do personal hygiene tasks like brushing their teeth or shaving.



Real World: Heart Rate and Blood Pressure

[Real World: Heart Rate and Blood Pressure - NASA Science](#)

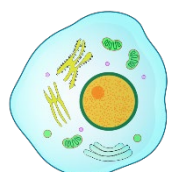
Learn about the physiological effects reduced gravity environments have on the human body. Use multiplication to calculate cardiac output and find out what effect space travel has on sensory-motor skills, stroke volume and heart rates of the astronauts.



Real World: Physically Fit on Earth and Beyond

[Real World: Physically Fit on Earth and Beyond - NASA Science](#)

Staying fit isn't just important for you - it's critical for astronauts gearing up for demanding spaceflights! Corey Twine, a conditioning specialist from NASA's Astronaut Strength, Conditioning, and Rehabilitation (ASCR) group, shares how he helps astronauts stay strong for life in reduced gravity and their return to Earth's



Real World: Small Systems Count – Cells in Space

[Real World: Small Systems Count - Cells in Space - NASA Science](#)

Learn how NASA scientists study cells on Earth to learn how to protect astronauts from radiation during space flights. Dr. Egle Cekanaviciute describes changes in cells and cell organelles. She also compares quantitative and qualitative data and demonstrates how to calculate the percentage of mutated cells.

Educator Guide

Hands-on Explorations and Engaging Activities

National Aeronautics and Space Administration

NASA eClips™
Educator Guide

NASA's Our World:
Keeping the Beat



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<https://nasaclips.arc.nasa.gov/>
Revised 2025

Our World: Keeping the Beat

[Our World Keeping the Beat](#)

Students measure and record their pulse rate before and after physical activity to learn more about the heart. Students have the opportunity to use a math model to look for patterns in the pulse data. Students participate in a Cardiac Relay to deepen their understanding of the circulatory system. Students make observations of gravity's effects on a water balloon to learn more about gravity's effects on water in the body. Thinking and acting like scientists and engineers, students learn more about the design of exercise equipment to keep astronauts healthy in space. This lesson is developed using a 5E model of learning and utilizes NASA eClips™ video segments.



Career Connections

The Journey to Becoming NASA Subject Matter Experts



Ask SME Close-up with a NASA Subject Matter Expert Astronaut Strength and Conditioning Specialist – Corey Twine

[Ask SME: Astronaut Strength and Conditioning Specialist Corey Twine - NASA Science](#)

Corey Twine, Astronaut Strength and Conditioning Coach at NASA's Johnson Space Center, shares how he helps to keep astronauts physically fit for work on Earth and while working in space.



Ask SME Close-up with a NASA Subject Matter Expert Space Biologist - Dr. Egle Cekanaviciute

[Ask SME: Space Biologist Dr. Egle Cekanaviciute - NASA Science](#)

Dr. Egle Cekanaviciute, Space Biologist, shares how she studies radiation and its effect on human brain cells. Dr. Cekanaviciute stresses the importance of balancing work with other interests.

