



# MISSION X: TRAIN LIKE AN ASTRONAUT CHALLENGE

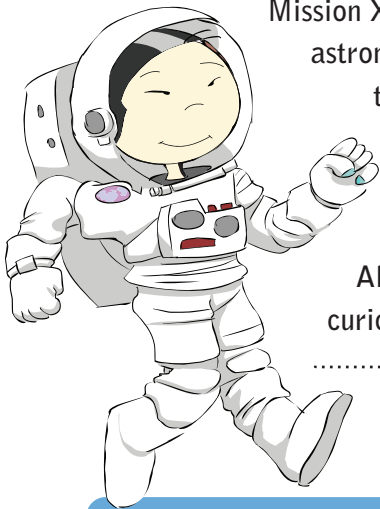
Mission X: Train Like an Astronaut is an international challenge for kids that brings the excitement of space exploration to learning about living a healthy lifestyle!

ARE YOU READY TO TRAIN LIKE AN ASTRONAUT?

Mission X is an international fitness challenge for kids that aims to increase opportunities for them to become more physically and mentally active. This challenge uses the excitement of space exploration and astronaut training to challenge, inspire, and educate kids to set physical fitness goals and to practice physical fitness and proper nutrition. Kids will explore mission challenges, learn the science behind nutrition, and learn to train like an astronaut!

Mission X: Train Like an Astronaut physical activities are modeled after the real-life training that astronauts do to prepare for exploring space. Kids will experience hands-on science that relates to the needs of their bodies on Earth and to the needs of an astronaut in space.

The activities used in Mission X: Train Like an Astronaut were developed collaboratively with the National Aeronautics and Space Administration (NASA), European Space Agency (ESA), scientists, and fitness professionals who work directly with astronauts. Although designed for 8-12 year olds, the challenge is for anyone and everyone who is curious about space exploration and what it takes to be an astronaut.



INSPIRING KIDS TO BECOME THE NEXT GENERATION OF FIT EXPLORERS!

## ACTIVE SCHOOLS

**Challenge students to train like astronauts.** Connect the science classroom to physical education while learning about living a healthy lifestyle, the science of physical fitness and nutrition, and the excitement of space exploration.

**How does Mission X work?** Form a team of students to represent your country and participate in the annual six-week challenge. Download the physical and educational activities. Watch the videos for a step-by-step guide on the activities and how they relate to the human body in space. Prepare the students to take on mission assignments by setting goals, creating Mission Journals, and following other students from around the world as they help 'Astro Charlie' walk to the Moon and beyond! Participants will use a points rubric to accrue points for their country and Astro Charlie.

Visit the website for information on registration, challenge dates, participating countries, Astro Charlie, and the Mission X blog at [www.trainlikeanastronaut.org](http://www.trainlikeanastronaut.org).

## ACTIVE COMMUNITIES

**Bring fun, fitness and nutrition to your neighborhood.** Bring the excitement of space exploration to after-school programs and extracurricular programs.

**How does this work in my community?** Visit the website and choose activities that will fit with your existing program. Consider what can be accomplished in the location and time period available. Have your instructors follow the activity handouts and view the videos to prepare for teaching the community. Make a plan, get the word out, and watch the kids get excited and have fun learning about space exploration!

**Want to involve more of the community?** Consider creating a fitness and nutrition day with local partners that care about the health of your community!

## SCIENCE ACTIVITIES

### Student Handouts

Mission X includes hands-on science activities designed to help students understand how physical activity and nutrition affect the human body on Earth and in space. These activities are based on science, technology, engineering, and mathematics concepts. The Student Handouts contain step-by-step instructions for following the scientific method as kids investigate the importance of hydration, maintaining bone health, how calories are converted into energy, formulating a balanced meal, and more.

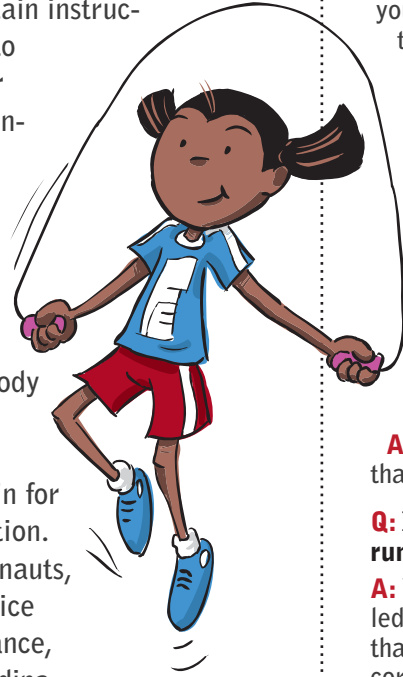
### Teacher Handouts

The Teacher Handouts provide the information needed to lead each activity. A background on space is provided so instructors can understand how the activity relates to exploration. Each handout also provides information and hints on explaining the activities to the kids and how to work towards content objectives. Monitoring and assessment questions, material lists, preparation instructions, space vocabulary, safety guidelines, and additional resources are also included. Information on the scientists and engineers that helped create each of the activities is available too!

## PHYSICAL ACTIVITIES

### Mission Handouts

Mission X: Train Like an Astronaut includes a variety of physical activities called "Missions". The Mission Handouts contain instructions for kids to complete their "mission assignment". These missions involve physical activities that use the same muscles and body systems as astronauts do when they train for space exploration. Just like astronauts, kids will practice muscle endurance, hand-eye coordination, heart and lung endurance, balance, spatial awareness, aerobic and anaerobic activity, communication, and more. They will learn how these things are important to keep themselves and astronauts fit and healthy.



DID YOU KNOW  
THE HUMAN BODY  
CHANGES IN SPACE?

## Frequently Asked Questions

**Q: How can I register for Mission X?**

**A:** Everything is available on the website: [www.trainlikeanastronaut.org](http://www.trainlikeanastronaut.org). Official teams are chosen by July 1, but you can participate as an observing team at any time!

**Q: How much does it cost?**

**A:** This challenge is provided by NASA, ESA, and other international space partners and is absolutely free! All content is available on the website. The only thing you may need to purchase is activity materials.

**Q: How long does it take to complete the Mission X: Train Like an Astronaut Challenge?**

**A:** Mission X is a six-week challenge that occurs annually.

**Q: Is adult supervision required to run this program?**

**A:** Yes, each of the activities should be led by an adult. This helps to ensure that all safety precautions are followed correctly. We also look to the adult to help keep the excitement of space exploration at the forefront of these activities. Instructor guides are available on the website.

**Q: What languages are supported by the Mission X Challenge?**

**A:** Mission X: Train Like an Astronaut activities are currently available in: English, Spanish, French, Italian, German, Dutch, Japanese, Swedish, Portuguese, Norwegian, and Czech.

 <https://twitter.com/walktothemoon>

 <http://www.facebook.com/pages/Mission-X-Train-Like-an-Astronaut/128047630547594>

## LEARNING RESOURCES

**Videos** Mission X: Train Like an Astronaut activities each have a video with step-by-step procedures for the instructor. Astronauts joined in the adventure by explaining how each activity relates to their experiences in training for space exploration.

**Points Rubric** The Points Rubric is for tracking kids' progress. Use the rubric to challenge each team to train hard and get a high score. The scores are based on combined activity completion, fitness accelerations, space application, teamwork, and of course fun!

**Mission Journal** The Mission Journal, or mission notebook, is for collecting data and keeping activity progress, documenting research, and learning reflections. Although not required to complete the program, they are a great tool to keep kids motivated and to record points for Astro Charlie to get to the Moon.

**Challenge Blog** The Mission X Challenge Blog is a place for countries to report on the progress and activities of their student teams. Photos, videos, and mission updates are submitted to inspire and motivate the students and the community as teams work to complete the challenge.

**Walk to the Moon Interactive** During the Mission X: Train Like an Astronaut Challenge, students from all over the world work together to earn challenge points. These points are combined to equal steps to the Moon as the Fit Kid (Astro Charlie) astronaut journeys to make it through space and to the Moon by challenge end.

ARE YOU READY FOR THE CHALLENGE? LEARN MORE ABOUT THE MISSION X: TRAIN LIKE AN ASTRONAUT CHALLENGE AT

[WWW.TRAINLIKEANASTRONAUT.ORG](http://WWW.TRAINLIKEANASTRONAUT.ORG).

