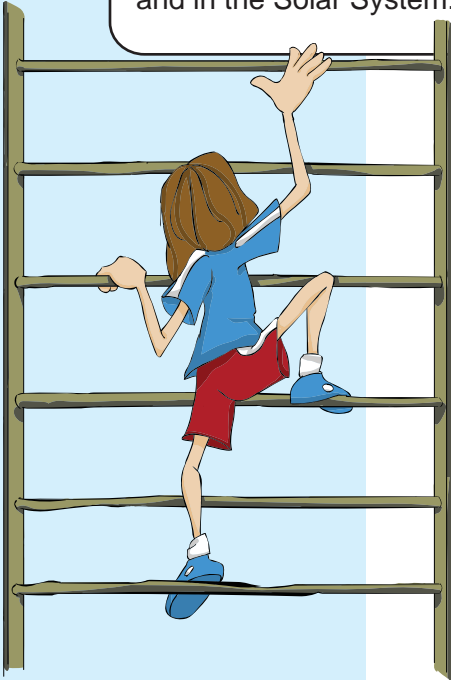




## It's a Space Fact

During the basic training and sometimes in preparation of a space mission, astronauts perform activities aimed at strengthening upper body muscles, whole body stability and balance, flexibility and agility. European Space Agency (ESA) astronauts mostly train on artificial walls, however climbing can also be done outside on the rock or in a climbing garden with challenging stations several meters of the ground. ESA astronaut Paolo Nespoli is keen on rock climbing and he is not the only one. NASA astronaut Scott Parazynski said that 'one of the best ways to prepare for a spacewalk is rock climbing. It takes a lot of strength and endurance'. Similarly in preparation for a space mission, also climbing activities requires a training, mental focus and physical fitness.

Planets of the Solar System feature impressive mountains: Olympus Mons is the tallest mountain on Mars and in the Solar System: it is 3 times as tall as Mount Everest!



### Agility:

The ability to quickly and easily change the position of your body.

### Muscle Strength:

Ability to overcome a force/resistance by contracting your muscles.

### Self Confidence:

To believe in yourself, to believe that you are able to accomplish what you set out to do, to overcome obstacles and challenges

## Fitness Acceleration

- Climb and descend the bar wall or rock wall 3 times in a row.
- When descending the bar wall or rock wall, do it from the back side of the bar wall or backwards on the rock wall. How difficult is this to complete?
- When climbing the bar wall or rock wall, do it from the back side of the bar wall.

## Think Safety!

Scientists and Astronaut Strength, Conditioning & Rehabilitation (ASCR) Specialists working with the astronauts must make sure they have a safe environment in which to practise, so that the astronauts can't get injured.

- A warming-up and cooling-down period is always recommended.
- Avoid obstacles, hazards, and uneven surfaces.
- Wear appropriate attire for cycling such as a helmet and knee and elbow pads that allow you to move freely and comfortably to climb in Jump from a height you feel comfortable with and always under your teacher's supervision.

## Mission Explorations

- Find a gym which is equipped with climbing artificial walls for children to try the true experience of climbing.
- Try to climb a rope: many gyms are equipped with hanging ropes. How high can you go?
- Organize a hiking trip to the mountains.

**Status Check: Have you updated your Mission Journal?**