

COMENIUS 2014-2015

Life on IIS

ITALIAN TEAM

The international space station



The International Space Station (ISS)

The International Space Station (ISS) is a unique spacecraft in low-Earth orbit. It is the largest and longest inhabited object ever to orbit the Earth. There has been uninterrupted human presence on the space station since 2000. The ISS is an amazing feat of technology that allows humans to explore, live in, and perform science in space. Onboard the ISS, crew members live and work in a reduced gravity environment. This environment allows crew members to conduct experiments in biology, human biology, physics, astronomy and meteorology that could not be done on Earth. It also offers a rare opportunity for the testing of the spacecraft systems that will be required for missions to Mars and the Moon.

The ISS is approximately the size of an American football field (including the end zones) and has the interior volume of one and one half Boeing 747 jetliners. As of June 2011, the ISS consists of 15 pressurized modules for research and crew living quarters and an extensive integrated truss structure that provides power to the space station from the sun. It is an incredibly complex spacecraft made from science and technology.

The ISS was built with international partners, including five space agencies representing 15 nations. It shines as a peaceful, cooperative effort towards understanding space exploration. The results of the research completed on the ISS enable us to improve life on this planet. It also gives the international

community the experience and understanding needed to journey to other worlds.

The International Space Station is a laboratory, observatory and factory in space. In recent years it has also become a place for commercial, diplomatic and educational use. The future for the space station is still evolving. While science research will continue, there are many other possibilities for the space station technology. The ISS could be a staging site for future missions to the Moon, Mars and asteroids. It could also be used as a transportation vehicle or a place to repair satellites and other vehicles.

The ISS operates as an amazing laboratory orbiting the Earth. The make up of the space station includes many systems working together. There are core systems and secondary systems that make it possible for crew members to live and work successfully in space. These systems are monitored by the flight controllers in the Mission Control Centre

Letter to my daughters

When I was asked by a prestigious Italian news magazine to write a letter to my daughters – to be published in the first edition of the year – writing about the future, I was not exactly sure of what the content could be. Without worrying too much I accepted, as I consider it a privilege the fact that they had asked me. An astronaut is not an author, but it is important to get out of your comfort zone, and to confront the unknown.

So, between experiments (for which I was the guinea pig) and training sessions – while I was running, swimming and gritting my teeth through strength tests – I thought about my little daughters: how to express something valuable and at the same time comprehensible, now, and in ten or fifteen years, that would not lose value, but rather intensify it with experience?

After two weeks – during which time I was often contacted to know if I was still interested in the collaboration – I understood I was trying too hard to use my brain, and that I was looking for something, as often happens, in the wrong place. Two days before the deadline I sat down at the desk in my hotel bedroom, in a foreign country, on a cold-yet-clear autumn night. I stopped thinking, and I began to write.

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To Sara and Maia

The world is incredibly beautiful. Maybe I had forgotten, but I saw it from afar, and now I have proof. But even from up close it can be wonderful, if looked upon with the right set of eyes: eyes like yours, that observe with the gift of curiosity, illuminated by the light of wonder. Eyes that still believe in enchantment, without shame – eyes that understand with no need of explanations.

This is the only world we have, and it contains something extremely precious: our future. Every future is as big as the entire world. The future, just like the world, does not belong to you, yet it is in your hands. It is unique, but it is never the same. It may seem infinite, but it is only infinitely fragile.

I wish I could show you the way to your future, but that is not the role of a father. What I really want to give you instead is the map containing all the roads, so that you can choose your own way.

You are still too young to understand this, but you children are so much richer than us, the grown-ups. You have at your disposal such a capital that the richest of men envy you: time. Recently you started going to school, and without knowing it, you have started investing this treasure of yours, letting it grow by transforming it into knowledge, into experience, into memories. This is the only luggage you may take along with you, while you travel following that map that I would like to give you.

Soon enough you will encounter the first problems, the first challenges: at every junction on that map you will have to depend

on what you took with you to choose a road to go down. Initially, there will be no difference : many roads will take you to the same destination and the only thing that changes will be the view, or maybe the distance.

But, sooner or later , the road you choose will diverge from the previous one, irreversibly, and there won't be many chances to go back. This I have learned: you will have enough time to choose your road. Sometimes, you will discover that the road did not exist until you made the first step. It does not matter. What really matters, the only thing, is that you love to walk. Choose what you love, love what you choose.

And if the going gets rough, when obstacles seem insurmountable, when there is no light to clear the way, remember that at times, you need to be lost in order to find yourself.

Embrace difficulties: they will enrich your road. Look for challenges: they will strengthen your step.

Finally: you will have fellow wayfarers who will at times follow your road, at others stray away, to come back or to forever disappear. You will love their company, you will miss them when they are gone. And if they take with them part of what you carry along, look really well: you will find that nothing is amiss, and that you now have even more.

Capitolo 2

Chapter 2

Exercises



Interattivo 2.1 Parmitano's
Letter to my daughters:
questions



Interattivo 2.2 Parmitano's
Letter to my daughters:
cloze test



Interattivo 2.3 Parmitano's
accident



Interattivo 2.4 Suni
Williams ISS tour

