**Spanish scripts (original)**

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**# HEPscape-Phase3-Junior-AudioOK.mp4**

**## First video: original by Simone Francescato (P1) 0:16 to 0:58**

**Setting: P1 in front of ATLAS layout**

Hello, welcome to the CERN experimental site, where the most powerful particle accelerator in the world operates, within which particles move and collide.

We are located near Geneva, Switzerland, and this unique experiment in the world, called the Large Hadron Collider or LHC, is built underground.

Behind me you see an almost life-size image of one of the four experiments used to measure collision particles.

We've talked too much already, so let's get going.

Today we will take you to our underground world and you will become researchers for a day. I can already see that you are wearing the protective helmet, look for the button to call the elevator to go down.

**## Second video: original by Sabrina Giorgetti (P5) 1:42 to 2:01**

**Setting: P5, out of the elevator**

*[speaker exits the elevator and turns around]*

Here you are, now that you have exited the elevator, put on your badge to enter the control room. If you don't have a badge,

*[speaker shows the badge]*

look in the room for the manual that explains the procedures for entering the control room, and join me as soon as you have found your badges.

**## Third video: original by Chiara Basi (P5) 2:20 to 3:05**

**Setting: P5, in front of control room button set**

Welcome, you are in the control room of one of the experiments that takes data from the LHC. Here, male and female scientists, as if they were members of the crew of a ship, operate the experiment and take data. Here next to me, you see a panel that shows you what the status of the experiment is at the moment. If all goes well, the lights will be green, otherwise, some lights will turn red.

[siren alarm]

Exactly, it seems that there is a problem with the superconducting magnets of the LHC. But now we need someone to explain how to solve the problem.

**## Fourth video: original by Sabrina Giorgetti (P5) 3:06 to 4:10**

**Setting: P5, upstairs, near open magnet**

What you see here is the inside of one of the LHC magnets. The famous blue tubes that are often seen in the photos are gigantic superconducting magnets that serve to keep the particles rotating inside the accelerator on a circular trajectory, a large circumference, the circumference of the LHC. These magnets are very special, and to work they must be kept at very low temperatures. But do you know how low? Help me find out and let's find the right combination to restart the LHC together.

[Robotic voice:]

Temperature entered correctly. The LHC magnets are ready for collisions.

[Back to Sabrina]

Great, we have set the right temperature and the magnets are ready for insertion of the particle beam. But am I wrong or are there still some pieces of the puzzle missing? Our work isn't finished. But first, let's see what these magnets are for.

**## Fifth video: original by Simone Francescato (P1) 4:10 to 4:50**

**Setting: R1, in front of LHC beam**

These magnets lined up one behind the other along a 27km circumference, form the accelerator. Inside, the particles rotate in two opposite directions and then collide near the four main experiments, producing the collisions.

You should know that the entire world of particles is described by an elegant and beautiful theory, which we call the standard model of elementary particles.

But among all these particles, which are the right ones to insert into the LHC? Come on, one last effort, help us understand it.

**## Sixth video: Original by Chiara Basi (P1) 5:10 to 6:17**

**Setting: P5, in front of control room button set**

Well, you have solved all the puzzles, and the magnets and protons are finally back in their place. Now we can restart collisions at the LHC. But have you ever wondered what these collisions are for? Aren't you a little curious?

[only audio recording]

Take protons at the LHC and collide them at almost the speed of light into each other. When they collide near the experiments, the quarks inside them interact and produce the Higgs boson, a new particle with a mass 125 times the mass of the proton.

[back to Chiara]

OK, let's push the button to start the experiment. You find the button in the room and start the LHC with us.

[countdown]

[robotic voice] Insertion of the proton beam into the Large Hadron Collider.

**## Seventh video: original by Maria Elena Ascioti (meeting room) 7:13 to 4:50**

**Setting: conference room with slide in the backdrop**

Setting: conference room with slide in the backdrop

And so, finally, as I was telling you, we have found the Higgs boson whose mass is......whose mass is....excuse me for a second I have to make a call.

*[ring, about 5 seconds]*

Hello guys from HEPscape, help help. I need some information. Can you give me a hand, please? What is the mass of the Higgs boson?

*[wait a few seconds]*

Louder, I can't hear you.

*[wait a few seconds]*

Louder?

*[wait a few seconds]*

Thank you very much, thank you very much, thank you!

*[Hang up the phone]*

Ok, sorry I'm here. So, as we were saying we found the Higgs boson whose mass turns out to be 125 GeV.

With this, I thank you for your participation and attention.