CERN Teacher Programmes
Inspiring the next generation of scientists

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and
Visits Service
Objective of Teacher Programmes
To bring modern research closer to schools

OLD

Research
University
School Teacher
Students

NEW
Looking for multiplicative factors

School Teacher

4 + 4 = 5 - 2

x 1000

School Students

CERN June 2012
What are we trying to achieve with the help of physics teachers?

1: RAISE AND MAINTAIN THE INTEREST OF STUDENTS IN MODERN SCIENCE

- Motivate them to continue scientific education at school
- Help them to better understand the physical world

   Improve scientific literacy

2: INSTIL A FEELING OF MYSTERY AND DISCOVERY POTENTIAL

- Motivate students to take up science at universities

   Prepare the future generation of scientists

SCIENCE IS ALIVE!
How researchers view science
How school students view science

Science teaching climbing wall

1/2 mv²

What am I doing here?

m g h
Take students on a sight-seeing tour ...

The origin of ...

- Universe
- Black Holes
- Dark Matter
- Dark Energy
- Antimatter
- Particles

Link modern physics to school curriculum
Residential Teacher Programmes

Basic content

• Lectures
  – Introductions to CERN, Particle Physics, Cosmology, the LHC Experiments, Particle Accelerators, Medical Applications of Particle Physics, and the GRID

• Visits to experimental facilities
• Hands-on activities
• Working group activities
• Opportunities to meet working research physicists in a variety of informal settings.

All lectures are web archived and made publicly available
Outcome

• Newly inspired, motivated and confident teachers
• Inspire and motivate students
• Communicate with their colleagues
• Communicate with the general public
• Act as ambassadors for science, physics, particle physics, CERN

Excellent examples among the many teachers who have attended our programmes
“When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.”

“The only way of discovering the limits of the possible is to venture a little way past them into the impossible.”

“Any sufficiently advanced technology is indistinguishable from magic.”

Our goal, with the help of teachers, is to bring a little of the magic of CERN into the classroom.