

Group 4 (n=8)

1. Cloud Chamber
2. CERN Exhibition
 1. Microcosmos
 2. Mini-Expo (Greece)
 3. NanoCosmos
3. Accelerators and concepts in that context
4. (Virtual) Workshop for teachers in PP (CERN)
5. Lessons series for students in concept of mass (see Gron's lecture)

Group 1 (n=9)

1. Curriculum based ideas framed around IBSE; incorporate a lab or an activity related to PP etc. Use some real application
2. Games (e.g. card games, ball games, creating a periodic table of PP etc.)

Group 2 (n=9)

1. Particle Accelerators. Using current school equipment to make practical activities at class – bending focus, accelerating
2. Standard Model Game Card
3. IBSE guide to Higgs. Different levels of scaffolding based on students' age etc as a research task

Group 5 (n=8)

1. Design a particle accelerator, age 12-18
2. Have the students calculate CERN data, age 17-18, HYPATIA
3. How do we find something that we cannot detect, age 16-18, linked to cloud chamber and other detectors
4. How do physics relate to cancer research, age 15-18
5. How are fields, waves and particles linked to each other, age 12-18

Group 3 (n=8)

1. Bubble chamber analysis, use bubble chamber photos
2. Cloud chamber
3. Model of an accelerator, apps
4. Current events, students on Higgs
5. Games, card game, Bos e mo'n

Second Round of Ideas

1. Accelerators (design, lessons) - could be a part of this or could not be 9
2. Games (cards, board game) 15
3. Curriculum based ideas 5
4. Classroom exhibitions (microcosmos, mini exhibitions) 5
- ~~5. The concept of mass 1~~
6. Particle physics workshop for teachers and/or students 6
7. Detector lessons, design (including cloud chamber) 6
8. IBSE ideas for Higgs and other current events 4
- ~~9. Using data from Hypatia 5~~
- ~~10. Cancer research 0~~
11. Cosmic Rays and detectors 6
12. Teaching modern physics to 12 -15 and possibly PP for students 10
(quantum mechanics)
- ~~13. Fields, waves, particles - how are they connected 2~~

Working Groups

Group A	Group B	Group C	Group D	Group E	Group F
Accelerators	Games (existing)	Curriculum based ideas Teaching PP for students Teaching modern physics to 12-15y	Exhibitions	Detectors	Higgs

- Short description of scenario
- Keywords
- Target audience
- Age range
- Learning objectives
- Connection with the curriculum (?)

Working Groups

1st choices

Group A	Group B	Group C		Group D	Group E	Group F
Reeno Rossella Annette Sandy Bettina	Daniela Tahiana Jose Kevin Chuleene Jay Kobi	C1	C2	Paul Geofrey	Katerina Brian Surasak Masaki Irena	Cornelius Ibrahim Gosia Ofer
5	7	8	8	2	7	4

Working Groups

2nd choices

Group A	Group B	Group C		Group D	Group E	Group F
Iain Serges Angel Nenad Ofer Felipe Eleonora Vincent Keleko	Surasak Masaki Tiffany Jorn	C1 Jay Seth Bettina Kevin Brian Daniela Jose	C2 Rossella Geofrey Sandy Kobi Jeff P	Elena Irena Liliana Katerina Tahiana Raphael Ibrahim	Carola Reeno Chuleenee Annette Gosia Dario Michalis Cornelius Sara	Paul
9	4	7	5	7	9	1

Working Groups

Final Proposal

Group A	Group B	Group C		Group D	Group E	Group F
Reeno Rossella Annette Sandy Bettina	Daniela Tahiana Jose Kevin Chuleene Jay Kobi	C1 Serges Tiffany Jeff P Sara Keleko Dario Michalis Seth	C2 Jorn Felipe Eleonora Vincent Liliana Carola Iain Angel	Paul Geoffrey Raphael Elena Nenad	Katerina Brian Surasak Masaki Irena	Cornelius Ibrahim Gosia Ofer
5	7	8	8	5	5	4