

Primary Einstein-First Workshops

Workshop 1: Thursday, 18 November from 8.30am to 4.00pm

Workshop location: G18 on the ground floor of the UWA Physics building

Parking: paid parking off Fairway, Hackett Drive and Carpark P3 (see attached)

Purpose

To familiarise teachers with the key concepts to be taught and to provide opportunities to 'work through' each of the activities to be taught in the Year 3 (*Atom Frenzy and Hot Stuff*) and Year 5 (*Fantastic Photons and Our Place in the Universe*) Einstein-First modules.

Learning intentions

Participants will:

- be aware of the background and general requirements of being involved in the Einstein-First project
- know and understand the key concepts introduced in each module taught
- discuss the key concepts and conduct the activities associated with each lesson
- familiarise themselves with the pre-test and post-test for each module and the student attitude survey.

Program

8.00 – 8.30 Registration and coffee

8.30 – 8.45 Introductions and Program for the day

8.45 – 9.30 **Why Einstein-First?:** Professor David Blair will provide a brief background to the Project. He will also introduce and explain why it is important that we introduce atoms, molecules and photons, and Einstein's modern understanding of gravity, to students from an early stage in their schooling.

9.30 – 3.45 Split sessions Year 3 and Year 5

9.30 – 10.00	Atom Frenzy Teacher Background	Fantastic Photons Background
10.00 – 10.30	Atom Frenzy Lessons 1 and 2	Fantastic Photons Lessons 1 - 3
10.30 – 11.00	Morning tea break	
11.00 – 12.30	Atom Frenzy Lessons 3 to 8	Fantastic Photons Lessons 4 - 8
12.30 – 1.15	Lunch	
1.15 – 1.45	Hot Stuff Teacher Background	Our Place in the Universe B/ground
1.45 – 2.30	Hot Stuff Lessons 1 - 3	Our Place in the Universe - Spacetime simulator activities
2.30 – 2.45	Brief break	
2.45 - 3.45	Hot Stuff Lessons 4 - 8	Solar system, SciVR resources, space travel
3.45 – 4.00	Next steps and evaluation	

Workshop 2: Thursday, 25 November from 8.30am to 4.00pm

Workshop location: G18 on the ground floor of the UWA Physics building

Parking: paid parking off Fairway, Hackett Drive and Carpark P3 (see attached)

Purpose

To familiarise teachers with the key concepts to be taught and to provide opportunities to 'work through' each of the activities to be taught in the Year 4 (*May the Forces be with You*) module and the proposed Year 6 *Climate Science and Sustainable Energy Production* modules currently being developed

Learning intentions

Participants will:

- be aware of the background and general requirements of being involved in the Einstein-First project
- know and understand the key concepts introduced in each module taught
- discuss the key concepts and conduct the activities associated with each lesson
- familiarise themselves with the pre-test and post-test for each module and the student attitude survey
- contribute to the development of the proposed Year 6.

Program

8.00 – 8.30 Registration and coffee

8.30 – 8.45 Introductions and Program for the day

8.45 – 9.30 ***Einstein-First and Climate Science:*** Professor David Blair will provide a brief background to the Einstein-First Project, outline the key science concepts behind global warming and the impact climate change is having on ocean levels climate and the need to transition as rapidly as possible to 'green' energy sources to stop and reverse the upward warming trend

9.30 – 10.00	Teacher background: Atoms, molecules, climate change and electricity	
10.00 – 10.30	Climate change class activities including our climate change play	
10.30 – 11.00	Morning tea break	
11.00 – 12.30	Climate change class activities and investigations	
12.30 – 1.15	Lunch After lunch, teachers wishing to teach the Year 4 <i>May the Forces be with You</i> module will work in a separate group	
1.15 – 1.45	Sustainable energy futures, solar energy from solar panels and solar-driven wind, 'green' hydrogen	<i>May the Forces be with You</i> Lessons 1-3: Language and ideas, including maths of arrows
1.45 – 2.30	Solar panels, wind turbines hydroelectricity and pumped solar	Lessons 4 – 6: Electrical forces
2.30 – 2.45	Brief break	
2.45 - 3.45	Electricity storage	Lessons 7 and 8: Gravity and the spacetime simulator
3.45 – 4.00	Next steps and evaluation	

Parking

This is a student-free university week so plenty of paid parking will be available in the parking areas shown. If possible, public transport to UWA is an excellent option.

1. Paid parking in Fairway
2. Paid parking in P3 off Hackett entry 1
3. Paid parking on Hackett Drive

