Using energy of the past to learn about energy of the future

Craig Sinclair

Freelance Science Communicator

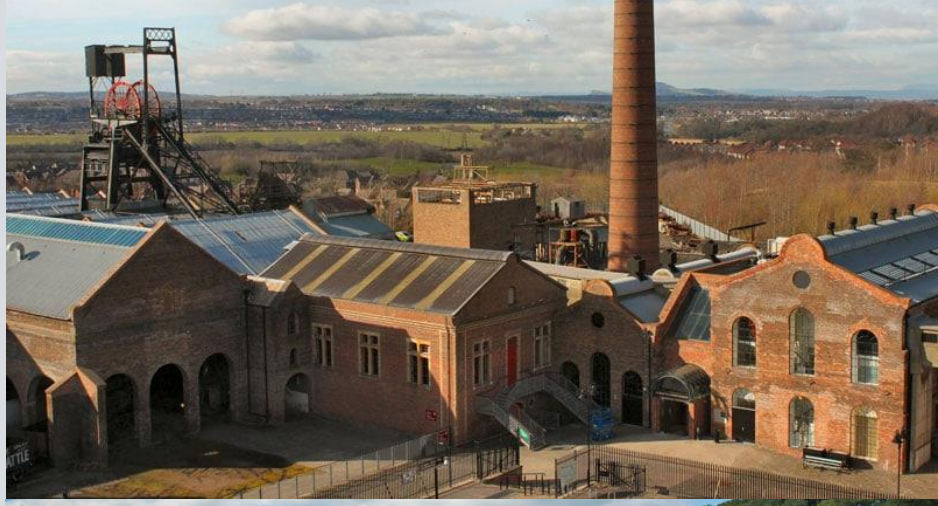
Former Science Engagement & Outreach Assistant at National Museums Scotland

@SincyScience

Powering Up 2017-2020

Renewable energy outreach education programme involving museum partnerships between National Museums Scotland and industrial museums across Scotland:

- National Mining Museum Scotland (Midlothian)
- New Lanark World Heritage Site (South Lanarkshire)
- Scottish Maritime Museum – Dumbarton (West Dunbartonshire)



Foundation SCOTTISHPOWER

Powering Up 2017-2020

- Historic Environment Scotland – Stanley Mills (Perth & Kinross)
- Scottish Maritime Museum – Irvine (North Ayrshire)

Education Programme Structure

- Aimed at Primary 7 year group but could be opened out to Primaries 4-6
- Three part structure
  - Visit to local partner museum (P7)
  - Classroom resources (P7)
  - Science show delivered in school (P4-7)
- Delivery period of around 6 weeks
- Additional visit to Energise gallery of National Museums Scotland

Partner Museum Visit

60 minute museum tour provided by partner museum staff

- Explore the objects of the pupils local museum
- Provide historical context for previous energy production and machine design

Partner Museum Visit

90 minute hand on workshop provided by National Museums Scotland staff supported by partner museum staff

- Experiments with model wind turbines, solar panels and lego dams
- Concept of transfer of energy emphasised throughout the workshop
- Constant referral back to tour to emphasise how historic techniques are still used to produce renewable energy

Science Show

- 45 minute show which re-enforced learning from the workshop through larger experiments and volunteer demonstrations
- Used objects from Energise gallery at National Museums Scotland to provide further context
- Much more visual and entertaining than workshop

Conclusions from the project

- Using historical objects throughout the programme provided extra context to the methods behind renewable energy generation
- Variety of programme re-enforced learning
- Legacy of the project
  - Partner museums incorporated the workshops into main education programme
  - Created strong contacts with local schools, with 5 primary schools taking part in all 3 years, and another 10 primary schools returning for a second year

Questions?

Twitter: @SincyScience

Email: sincyscience@gmail.com

Website: sincyscience.com