

CERF Energy Report 2018-2020

Overview

The Energy Education Plan was developed to meet the needs of the Energy reduction fund (CERF).

In September 2017 the pupil experience 'Using Energy' was launched. This was a subsidised programme. It was made available to schools during 2017-2018 and 2018-2019. This engaged 9 schools in the first year and 6 schools in the second year, supporting a total of 667 Pupils. Even with significant publicity and the subsidised travel these were still low numbers of engaged schools.

The programme was amended at the beginning of 2019-2020 with a focus on increasing the engagement with schools and provide some more long term sustainability of the programme. The on school site sessions were delivered as well as developing more resources for teachers to use to engage their young people in activities that related to energy conservation. The development of resources that schools can use to run sessions in their own schools ensuring sustainability of the impact of the CERF funding. This has already increased the engagement to a further 16 schools and 1117 pupils with more schools enabled to engage with the professional development programmes from September 2020.

Programme 1 2017-2019

- Upper KS2 & 3 - 'Using Energy' - Kinesis Centre (£26.00 per pupil) - PP LAC Free and other pupils 75% Subsidy from the CERF fund
- Website
- Mathematics teaching Resources

Programme 2 2019-2020

Key Stage 2 - 'Using Energy'- Holt Hall or In School (75% of original per pupil cost - £19.50 pp) Advertised at 100% subsidy from CERF fund - Ran from September 2019 - Pupils learn about how energy is made and used before taking part in an activity. Follow up classroom resource included.

Development of teacher resource for in-school deliver of 'Using Energy' - A programme that provides resources for schools to use to deliver a half day curriculum activity as a single or groups of sessions by school staff. - Available from June 2020.

Development of Teacher resources for - English and Mathematics - Teaching resources for English and Mathematics that have the focus of sustainable energy - <https://www.educatorsolutions.org.uk/media/ck-editor/2019/08/28/workbook-2-renewable-and-non-renewable-energy-using-ratio-and-proportion.pdf>

Teacher training for delivery of teaching resources - Subsidised Professional development sessions for teachers June 2020 and September 2020 - (Moved to September 2020 and January 2021) to support the use of the teaching materials and enable sustainability of the programme within schools.

Teacher training for delivery of 'Using Energy': Subsidised Professional development sessions for teachers June 2020 and September 2020 - (Moved to September 2020 and January 2021) to support the use of the teaching materials and enable sustainability of the programme within schools.

Pupil Outcomes

Pupil Learning outcomes

The aim of this pupil experience is to increase pupil's knowledge of different sources of energy, why non-renewable energy sources are bad for the environment and how to save energy. As well as having a focus of the mathematic curriculum, by the pupils working out how much energy they could save Norwich City Football Club with their changes.

To assess the impact of the experience on the pupils, a test was given before the experience and repeated at the end and these result where compared.

The data this year showed on average the knowledge of different fossil fuel increase from 1 before the session to 2 after the session (rounded averages see figure 1a.).

Before the pupil experience 37% of the pupils knew why non-renewable energy sources were bad for the environment and after the session 62% of the pupils were able to explain why. Only 20% of the pupils before the session knew the difference between non-renewable and renewable energy compared to 59% after the session (see figure1b and 1c).

In terms of knowledge of different sources of renewable energy source, 77% pupils correctly circled 3 to 4 correctly after the experience compared to 50% before the session. To add, before the experience 21% of pupils scored 0 where as after the experience 6% of pupils did not score any marks (see figure 1d).

In terms of pupil's knowledge of ways to save energy, before the session 30% of pupils listed one or more ways to save energy. After the session 70% of pupil listed one or more (see figure 1e).

Engagement

	2017-2018	2018-2019	2019-2020 (to date)
Total Number of schools	9	6	16
Total Number of pupils	315	352	1117

Expenditure

Overall

Year	Starting Balance	Expenditure on Pupil Experiences	Expenditure on resource development	Total Expenditure	Closing Balance
2018-2019	£88,736.00	£11,007.50	£6,050.00	£17,057.50	£71,678.50
2019-2020	£71,678.50	£37,545.75	£34,133.00	£71,678.75	-£0.25

Pupil Experiences Expenditure

2018-2019

Using Energy! 2018 - 2019				
Date	School	Total Number of Pupils	School Cost	NCC Cost
January				
23/01/2019	Tennington St Clements	37	£208.00	£754.00
31/01/2019	Tennington St Clements	25	£136.50	£513.50
	Coach Travel			£600.00
Total			£344.50	£1867.50
February				
04/02/2019	Fairstead	30	£117.00	£663.00
05/02/2019	Tennington St Clements	27	£136.50	£539.50
14/02/2019	Fairstead	30	£117.00	£663.00
	Coach Travel		£0.00	£970.00
Total			£370.50	£2835.50
March				
05/03/2019	Fairstead	31	£136.50	£669.50
14/03/2019	Fairstead	29	£110.50	£643.50
27/03/2019	Bure Valley	20	£65.00	£455.00
28/03/2019	Wymondham High	33	£130.00	£728.00
29/03/2019	Wymondham High	33	£65.00	£793.00
	Coach Travel			£1500.00
Total			£507.00	£4789.00
June				
17/06/2019	Holly Meadow	33	£175.50	£682.50
24/06/2019	Freethrope	24	£91.00	£533.00
Travel		100% cost		£300.00
Total			£266.50	£1515.50
Other				
		352		£11,007.50

2019-2020

Using Energy! 2019-20					
Date	School	Total Number of Pupils	Cost per pupil (100% at 90% cost)	Cost	
09/01/2020	Brisley Primary	60	£24.75	£1,485.00	
27/02/2020	North Wootton	92	£24.75	£2,277.00	
06/03/2020	Mundford Primary	88	£24.75	£2,178.00	
16/03/2020	Gooderstone Primary	90	£24.75	£2,227.50	
Mon 24 th February	Beeston Primary School	21 19	40	£24.75	£990.00
Wed 26 th February	Woodlands Academy	30 30			
Monday 2 nd March	Norwich Road Academy	24 27 26	77	£24.75	£1,905.75
Tuesday 3 rd March	Norwich Road Academy	26 24 27 28			
Wed 4 th March (all day)	Catton Grove	26 27 27	80	£24.75	£1,980.00
Monday 9 th March	Southtown Primary	27 30 28 29			
Tues 17 th March	Ludham Primary School	29 30	59	£24.75	£1,460.25
Wed 18 th March	Astley Primary School	20 20 22			
Friday 20 th March	St Augustine's Catholic Primary	30 30 30	90	£24.75	£2,227.50
Tues 24 th March	Trinity Federation of Church Schools	25 30 19 26			
			1117		£27,645.75
TBC	4 Days (100 pupils per day)	400	£24.75	£9,900.00	
					£37,545.75

Resource Development Expenditure

Using Energy! 2018 - 2020		
Other		
Date	Details of work	Expenditure
Nov-18	Maths Lesson plan/Resource (4 days of maths advisors)	
Nov-18	Maths Lesson Plan development - Adviser time (6 days)	£2,400.00
Dec-18	Pupil experience and STEM Manager (10 days) (Maths pupil booklets, review Maths review and 2 science plan)	£2,500.00
2018 - 2019	Website Development	£1,150.00
Total 20182019		£6,050.00
	Teacher Resource, guide pack for Delivering 'Using Energy' 8 Adviser Days	£5,333.00
	Teacher Training (half day X 6 - Delivering CERF 'Using Energy' 60 Spaces) - June 2020 September 2020	£13,000.00
	Teacher Training (Half day X4) - Teacher resource training 60 Spaces June 2020 and September 2020	£13,000.00
	Teacher Resource Development - English (8 Adviser days)	£2,800.00
2019/2020	TOTAL	£34,133.00

Appendix 1.

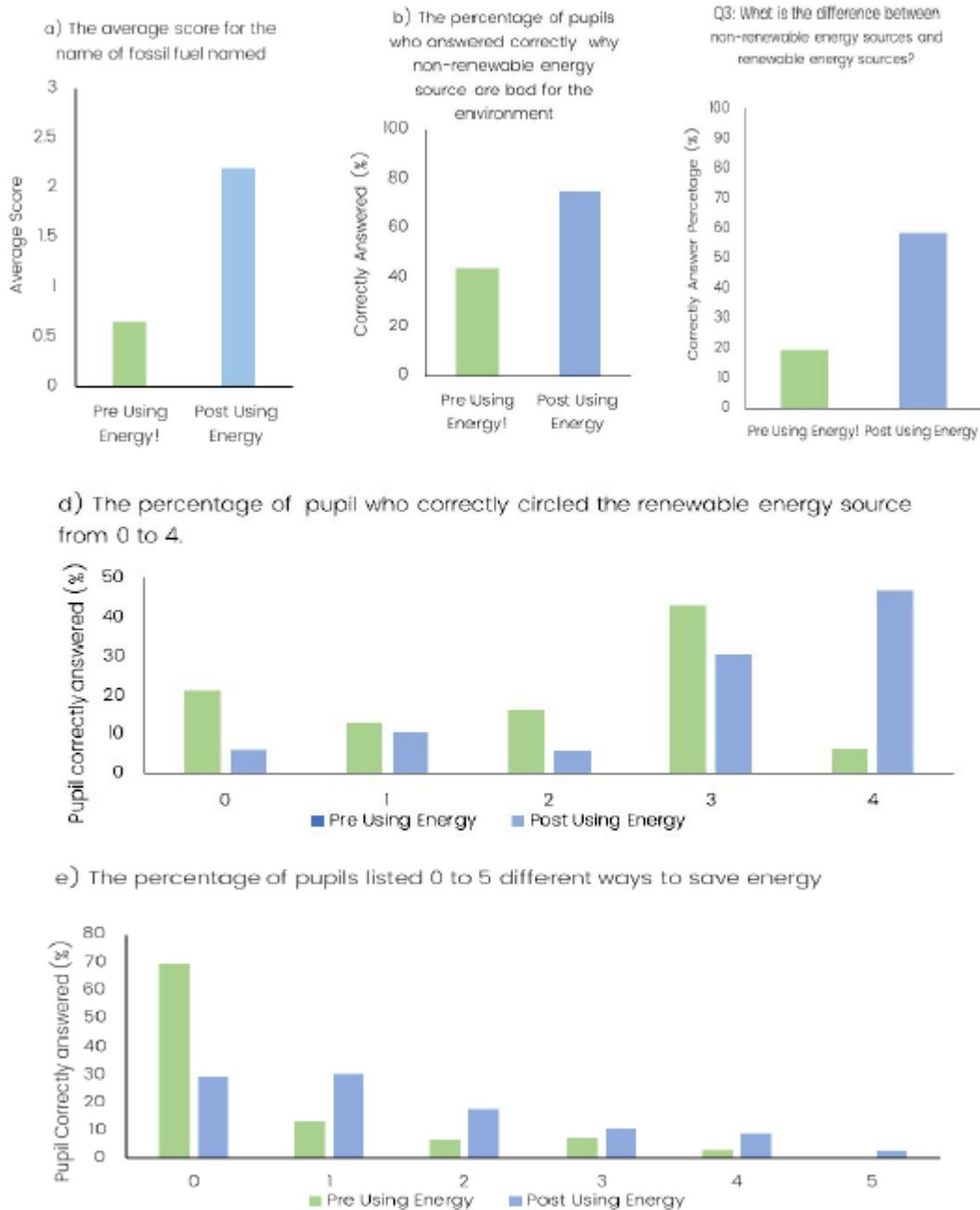


Figure 1. The pre- and post- test results from the Using Energy Pupil Experience. Green represents pre-experience and blue represents post.