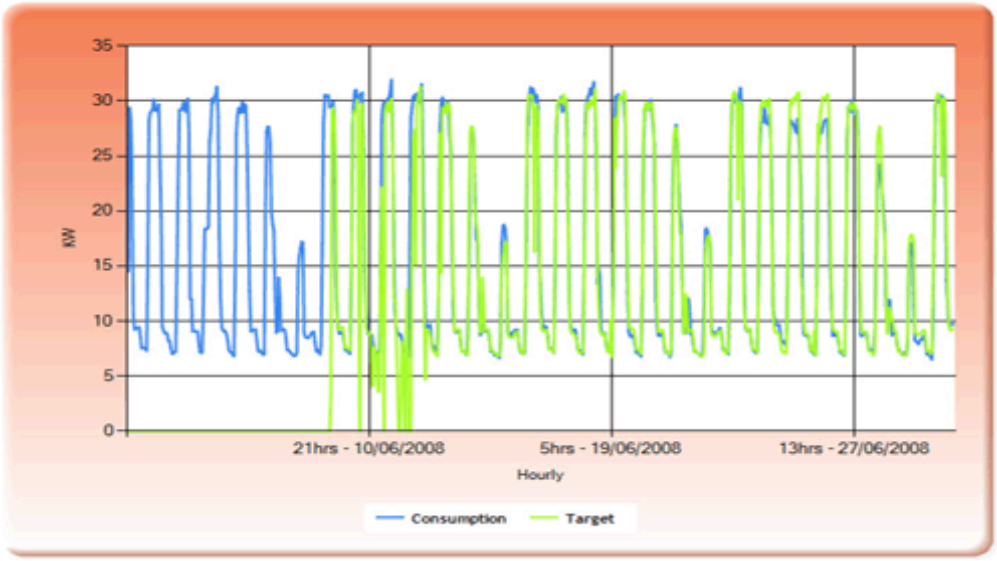
DynamatLite

Schools User Guide



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Leicester City Council

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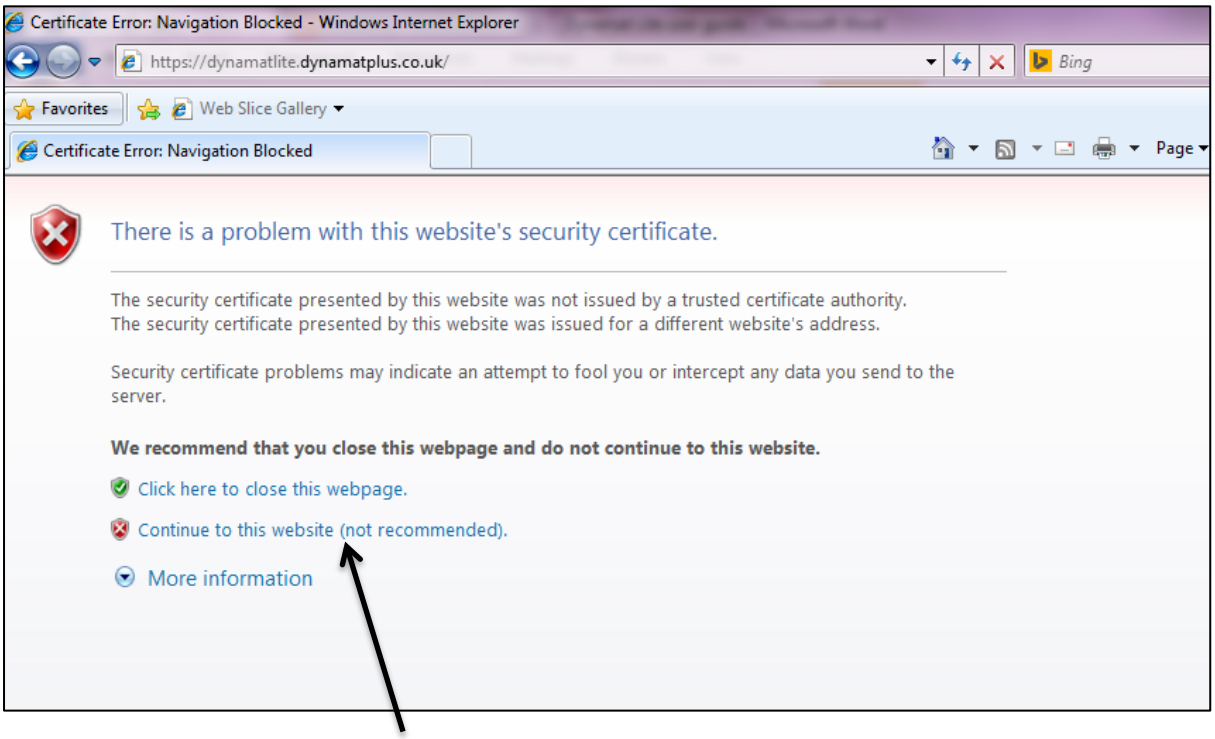
Website address: **https://dynamatlite.dynamatplus.co.uk/**
Your school: **BLANK**
Your school's username: **BLANK**
Your school's password: **BLANK**

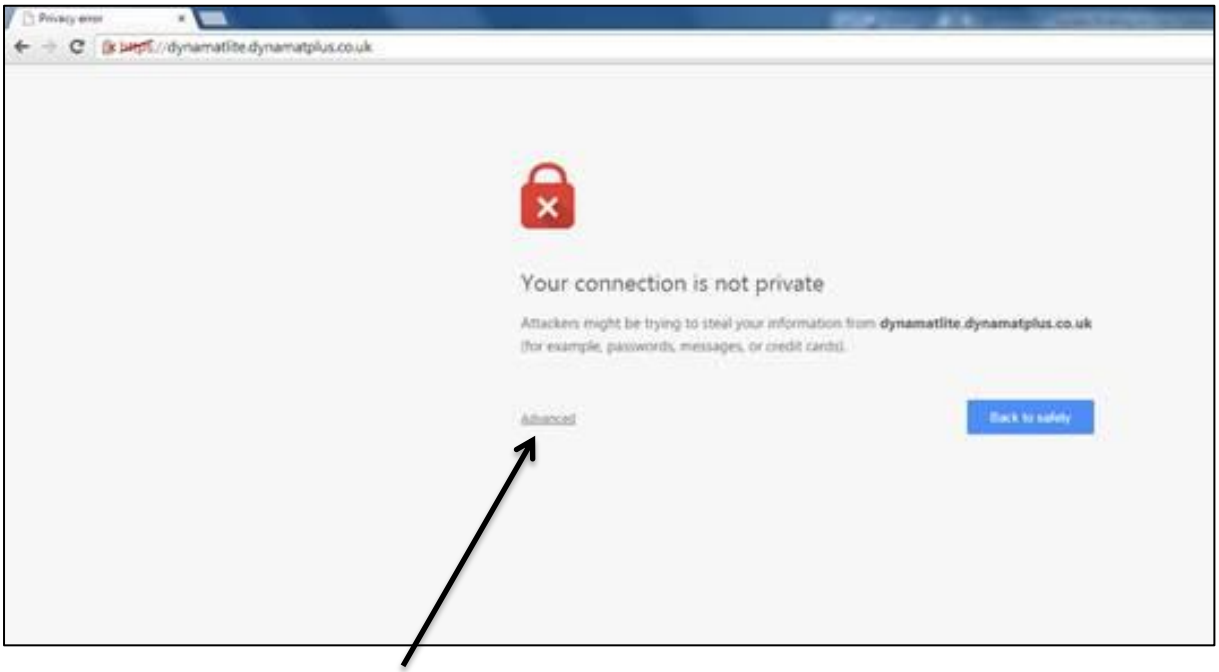
Logging In

The DynamatLite site can be found at https://dynamatlite.dynamatplus.co.uk/

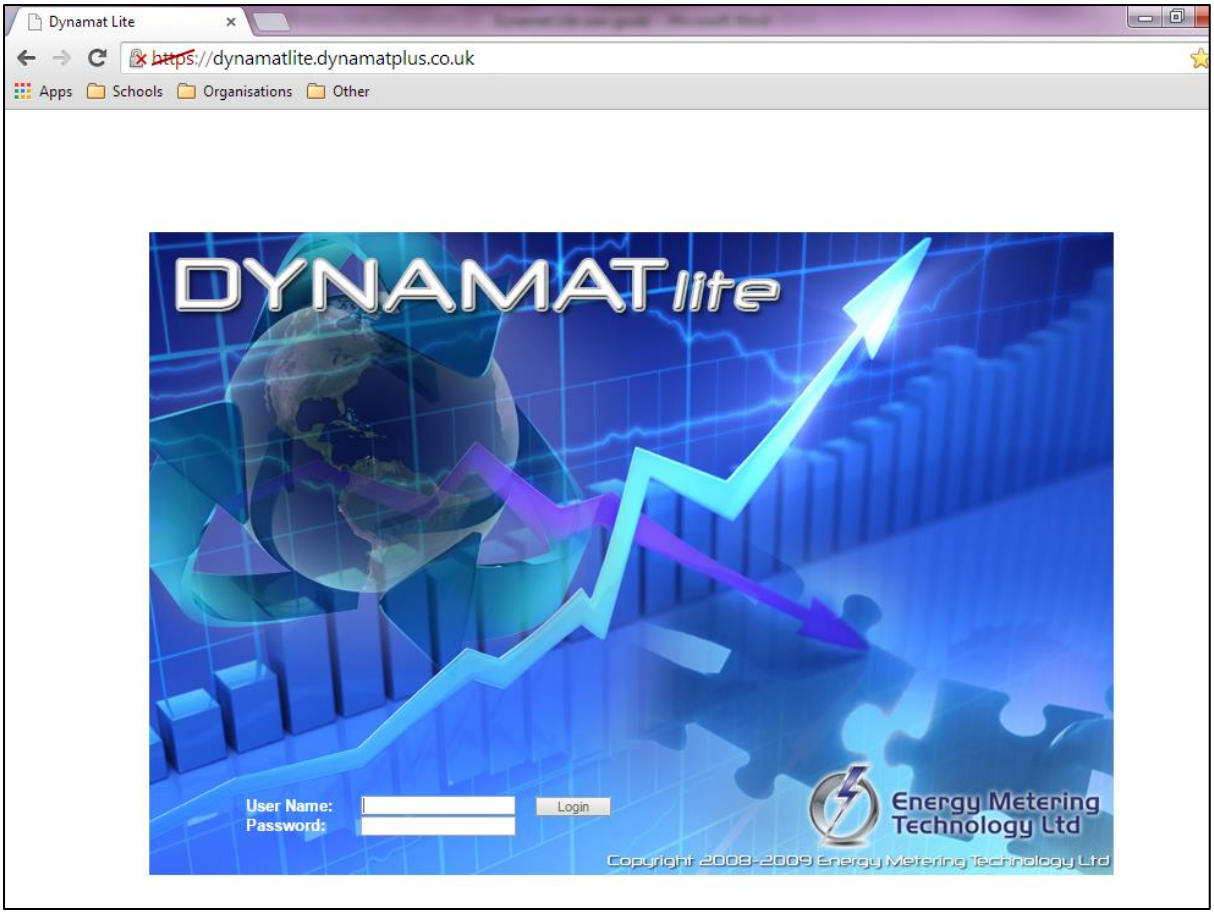
You may see a window saying the site is unsecure (see below). Ignore these and continue to the site.



Internet Explorer. Click 'Continue to this site (not recommended)'

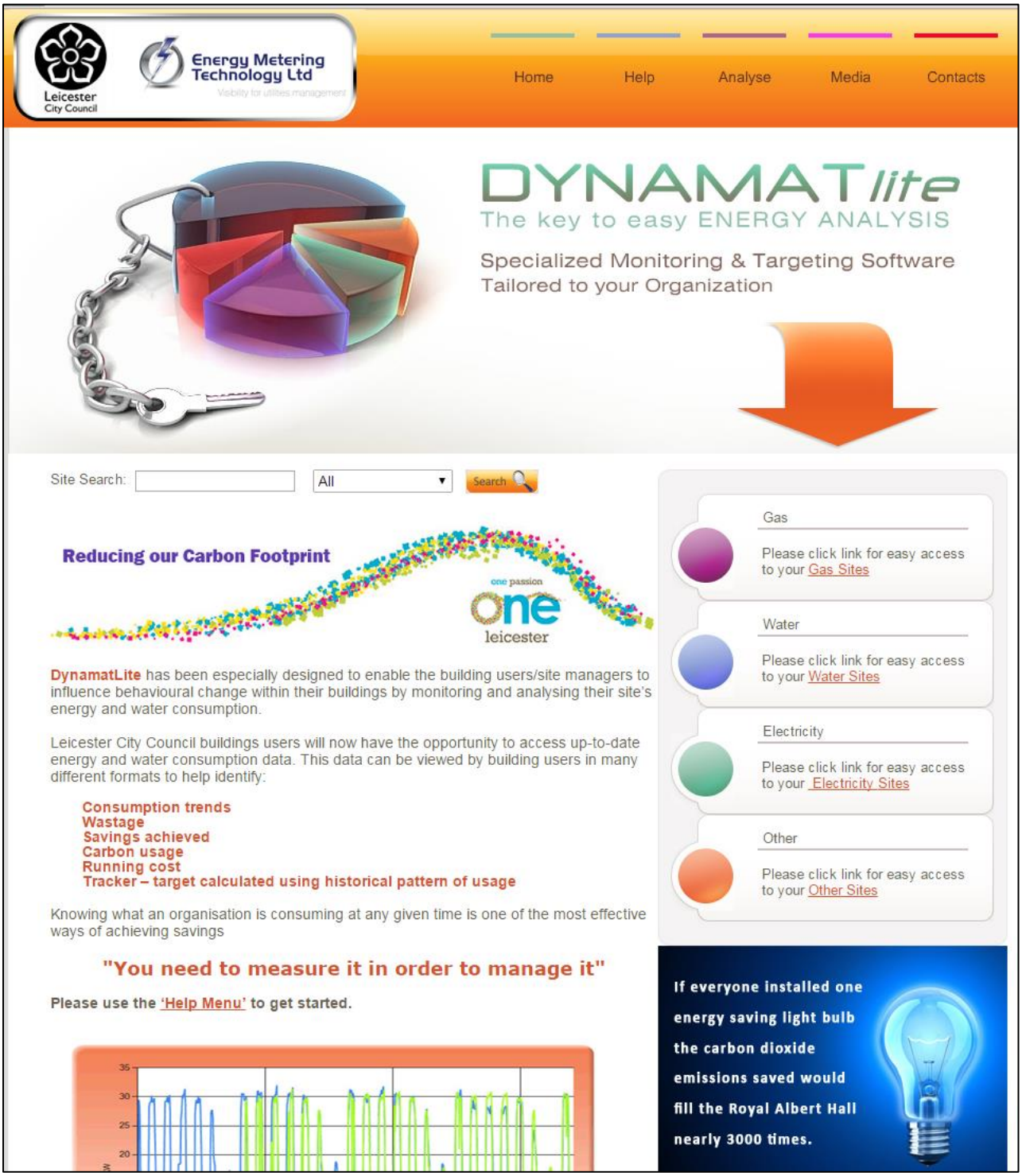


Google Chrome. Click 'Advanced', then 'proceed to unsafe website'



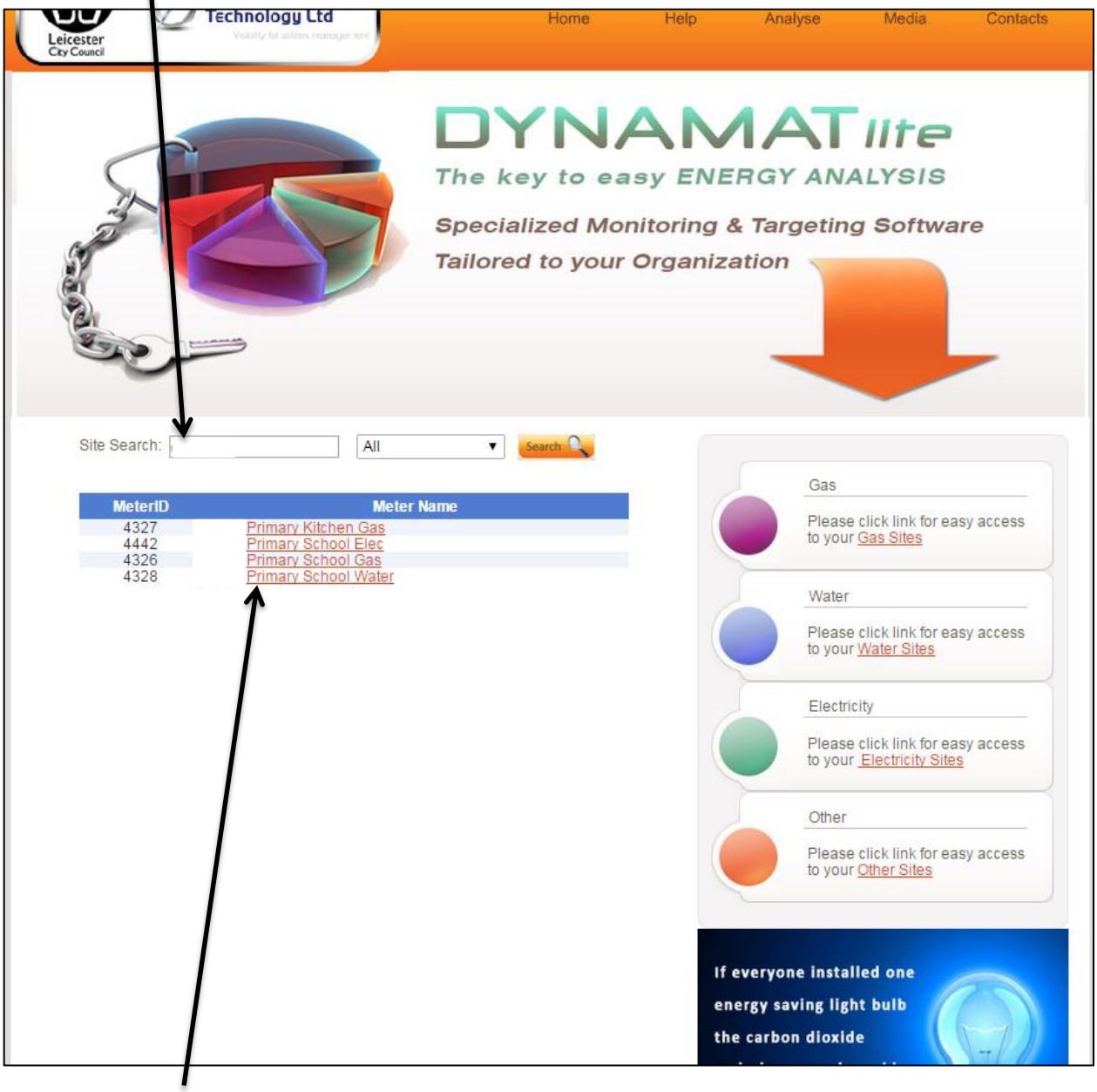
Enter your school User Name and password (see page 2) and click ‘Login’.

The DynamatLite homepage will appear something like this.



Finding your school

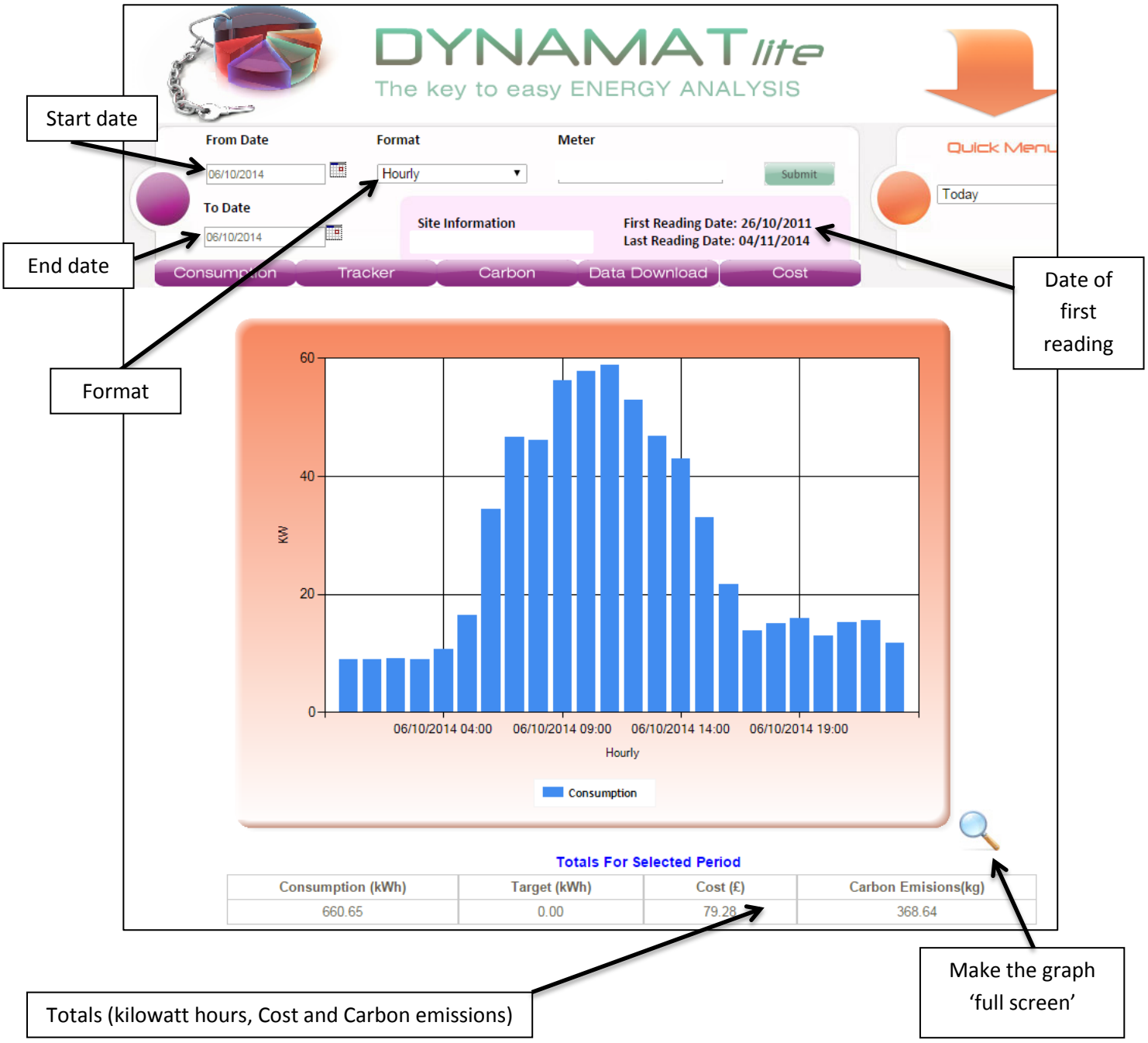
In the ‘Site Search’ box type a keyword of your school name, ignore the drop down menu and click ‘Search’.



Each meter is hyperlinked.

Options for looking at your data

A typical DynamatLite output looks like this.



Once you have selected the 'From date', 'End date' and 'Format', click 'Submit' to update the view. The visual bar chart is automatically updated.

You can view data hourly, daily, weekly, monthly & yearly. N.B. The more data you request, the longer it will take to return the results (i.e. hourly for a year will take longer that hourly for a day).

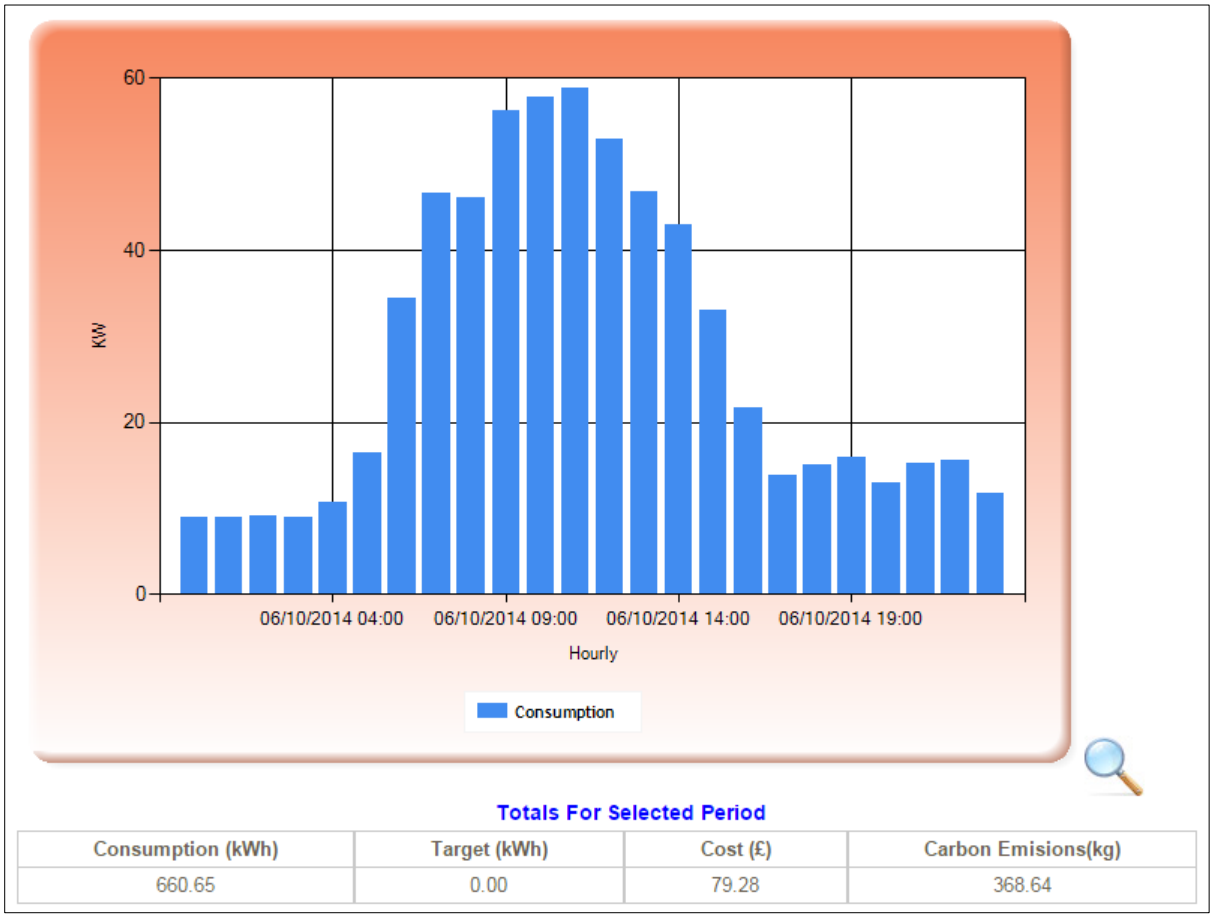
Accessing historical data

You can view the same data in several ways:

- Consumption
- Tracker
- Carbon
- Data Download
- Cost

These are displayed below for one day to compare the presentation styles.

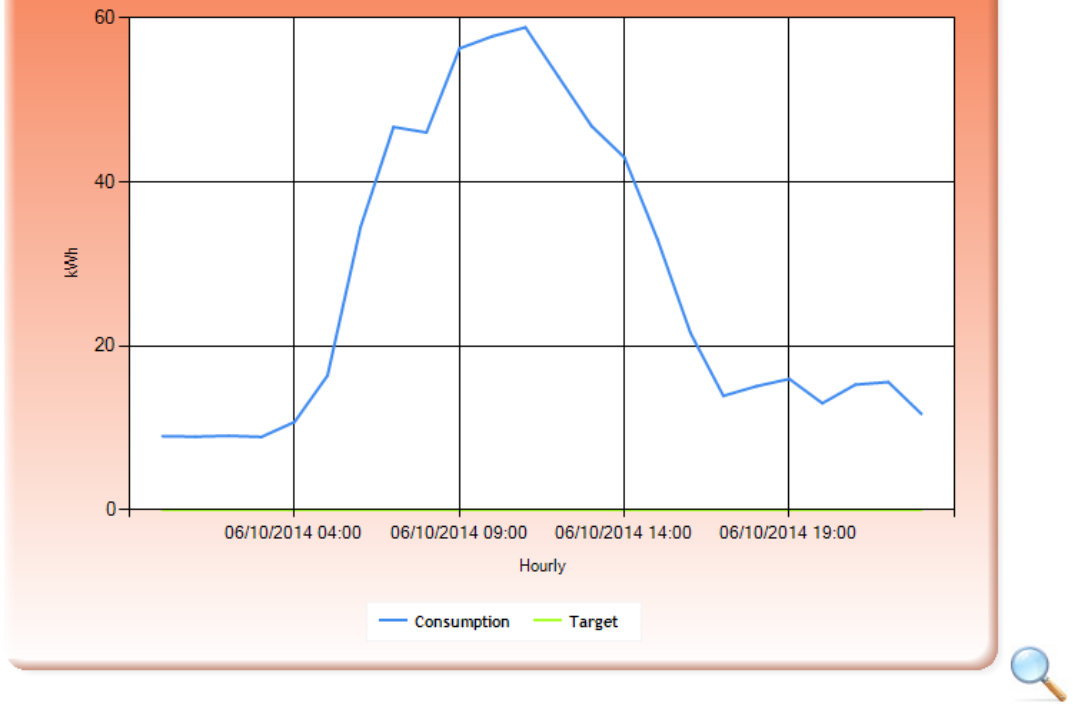
Consumption



Totals For Selected Period

Consumption (kWh)	Target (kWh)	Cost (£)	Carbon Emisions(kg)
660.65	0.00	79.28	368.64

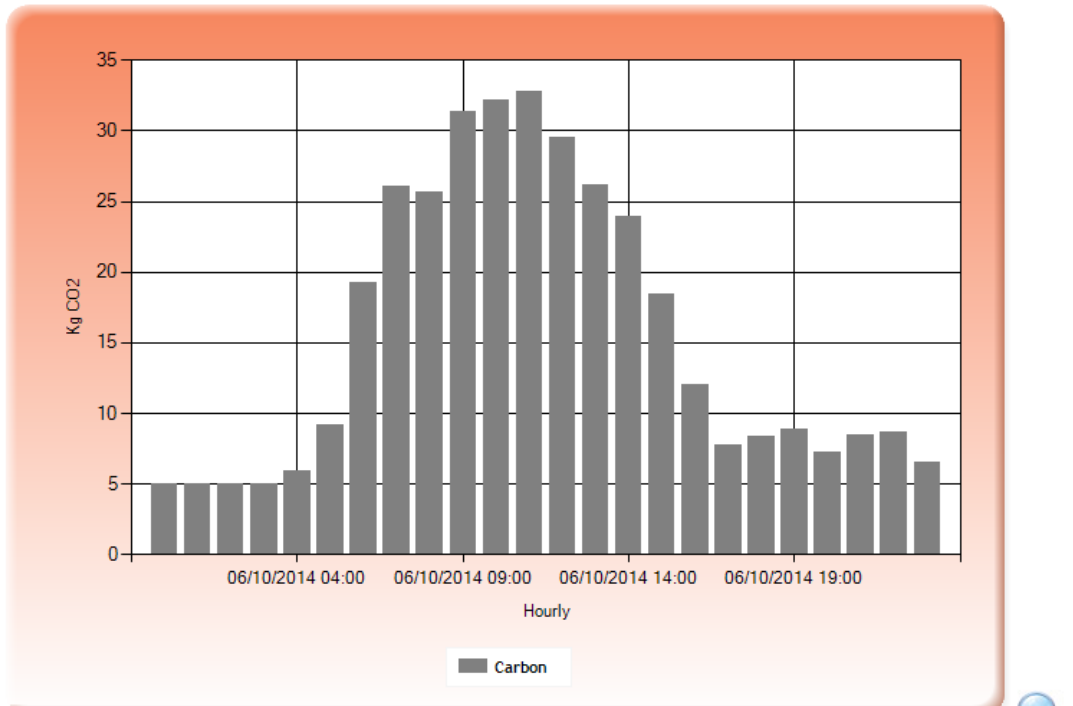
Tracker



Totals For Selected Period

Consumption (kWh)	Target (kWh)	Cost (£)	Carbon Emisions(kg)
660.65	0.00	79.28	368.64

Carbon



Totals For Selected Period

Consumption (kWh)	Target (kWh)	Cost (£)	Carbon Emisions(kg)
660.65	0.00	79.28	368.64

Data download

Data download - pdf Data download - excel

Date time	Consumption	Target	Interpolated
06/10/2014 00:00:00	4.54995	0.00000	False
06/10/2014 00:30:00	4.43869	0.00000	False
06/10/2014 01:00:00	4.35757	0.00000	True
06/10/2014 01:30:00	4.57227	0.00000	False
06/10/2014 02:00:00	4.74510	0.00000	False
06/10/2014 02:30:00	4.28801	0.00000	False
06/10/2014 03:00:00	4.17448	0.00000	False
06/10/2014 03:30:00	4.72255	0.00000	False
06/10/2014 04:00:00	5.26292	0.00000	True
06/10/2014 04:30:00	5.45015	0.00000	False
06/10/2014 05:00:00	6.24066	0.00000	False
06/10/2014 05:30:00	10.13671	0.00000	False
06/10/2014 06:00:00	15.96846	0.00000	False
06/10/2014 06:30:00	18.49610	0.00000	False
06/10/2014 07:00:00	22.38713	0.00000	False
06/10/2014 07:30:00	24.29631	0.00000	False
06/10/2014 08:00:00	22.60000	0.00000	False
06/10/2014 08:30:00	23.41867	0.00000	False
06/10/2014 09:00:00	27.31522	0.00000	False
06/10/2014 09:30:00	28.94020	0.00000	False
06/10/2014 10:00:00	28.53871	0.00000	False
06/10/2014 10:30:00	29.20809	0.00000	False
06/10/2014 11:00:00	29.48035	0.00000	False

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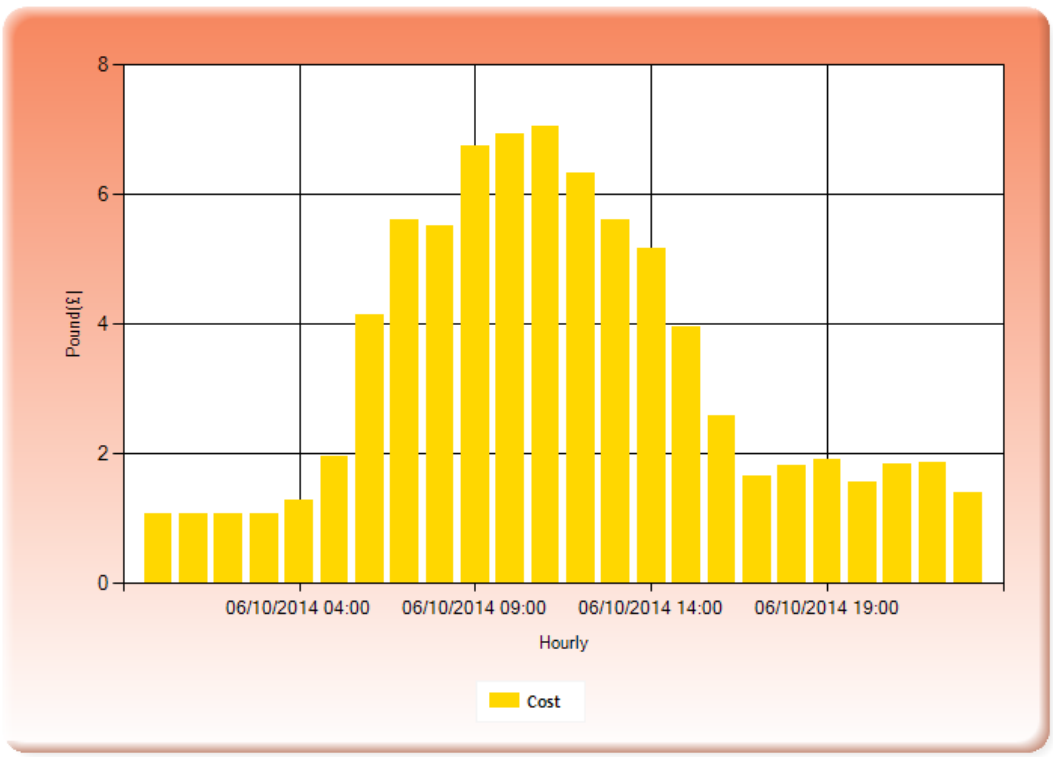
Cost

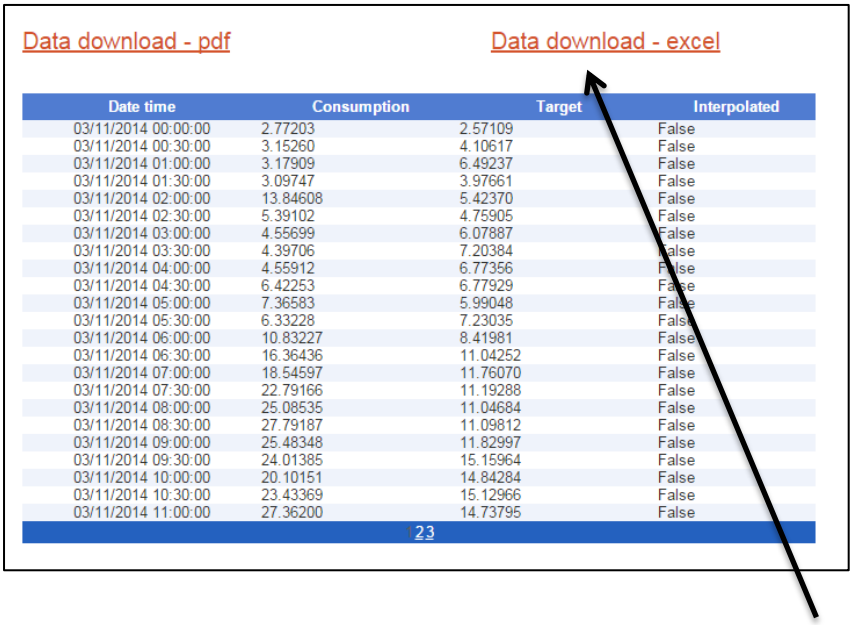


Totals For Selected Period

Consumption (kWh)	Target (kWh)	Cost (£)	Carbon Emisions(kg)
660.65	0.00	79.28	368.64

Exporting historical data

Data can be exported to use in excel from the 'Data Download' link. This can be extremely useful if you want to compare data from the same day, 2 years apart, for example.



Data download - pdf Data download - excel

Date time	Consumption	Target	Interpolated
03/11/2014 00:00:00	2.77203	2.57109	False
03/11/2014 00:30:00	3.15260	4.10617	False
03/11/2014 01:00:00	3.17909	6.49237	False
03/11/2014 01:30:00	3.09747	3.97661	False
03/11/2014 02:00:00	13.84608	5.42370	False
03/11/2014 02:30:00	5.39102	4.75905	False
03/11/2014 03:00:00	4.55699	6.07887	False
03/11/2014 03:30:00	4.39706	7.20384	False
03/11/2014 04:00:00	4.55912	6.77356	False
03/11/2014 04:30:00	6.42253	6.77929	False
03/11/2014 05:00:00	7.36583	5.99048	False
03/11/2014 05:30:00	6.33228	7.23035	False
03/11/2014 06:00:00	10.83227	8.41981	False
03/11/2014 06:30:00	16.36436	11.04252	False
03/11/2014 07:00:00	18.54597	11.76070	False
03/11/2014 07:30:00	22.79166	11.19288	False
03/11/2014 08:00:00	25.08535	11.04684	False
03/11/2014 08:30:00	27.79187	11.09812	False
03/11/2014 09:00:00	25.48348	11.82997	False
03/11/2014 09:30:00	24.01385	15.15964	False
03/11/2014 10:00:00	20.10151	14.84284	False
03/11/2014 10:30:00	23.43369	15.12966	False
03/11/2014 11:00:00	27.36200	14.73795	False

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Above is a set of data for a day. Click the 'Data download – excel' to directly download in excel format. It can also be downloaded as pdf – however this cannot be edited or manipulated.
When excel opens the data, it may state that the format is incorrect. Ignore this error and open the file.

This data can now be saved or presented in different graphical ways.

Lesson Plan Ideas

Preparation time: 20 minutes
Implementation time: 45 minutes
Curriculum links: Science, Maths, Business and IT

You'll need: your half-hourly profile data from DynamatLite printed out onto A4 paper; a sheet of A3 paper to stick it on to, sticky tape and pens.

Learning objective: to give an increased awareness and understanding of energy consumption at school through: observation, analysis and interpretation of the graph of maximum electrical demand, group discussion and the production of an energy poster.

Aim

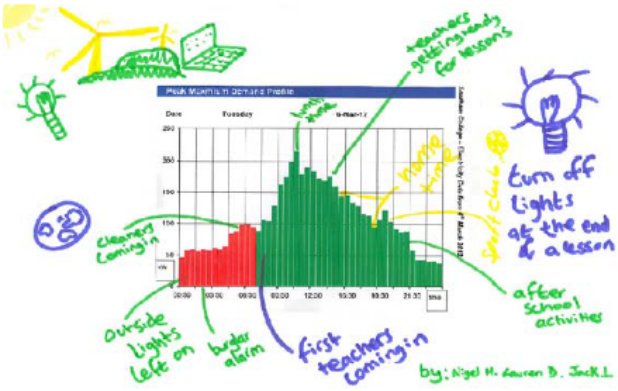
The purpose of this activity is to introduce pupils to graph interpretation in a real life scenario. Doing so effectively will allow them to recommend changes to improve your schools energy consumption.

Preparation

1. Log in to and access your half-hourly profile data from DynamatLite from https://dynamatlite.dynamatplus.co.uk/
2. Once you have logged-in, select a date range for a month and glance through your previous month's consumption to find a day of maximum demand, and then select that day from the calendar view using the half-hourly option.
3. Take a screenshot and paste into word and print onto A4. Then fix this to the middle of a sheet of A3 paper to create a large poster with lots of space to write on.

Activities

1. Look at the Peak Maximum Electricity Demand Profile poster and write down how the electricity in your school has been used to make a poster. For instance -
   a. What is the base load – the average lowest demand of the day in kW?
   b. What is this energy used for? – e.g. computers, outside and security lights, chargers, office equipment left on overnight, refrigerator, things left on stand-by etc.
   c. Is anything left on overnight, all day, during weekends or during holiday periods?
   d. Is heating or inside lighting left on all day or at night time?
   e. Who is first into the school in the morning?
   f. When are the computers turned on and off? Is there a server room?
   g. Are there any water heaters? What time are they on?
   h. Can you see when lunchtime starts?
   i. Is any cooking done on site?
   j. Are any electricity using activities undertaken to prepare for lessons?
   k. Are there any before or after school clubs?
   l. Can you see when home time is? Etc.



2. Decorate this poster with pictures of what has been using electricity.
3. Note what time of day has the highest electricity consumption and why.
4. Note what time of day has the least electricity consumption and why.
5. Give a few examples of how energy can be saved at the school e.g. slogans such as "switch off the lights at the end of a lesson".
6. Present your findings to the rest of the class.

Conclusion

Engage the students in a quick discussion about:

- What exactly they have learned about energy use in the school.
- Do they still have unanswered questions about the school's energy use?
- What, if anything, do they think should happen next?
- Summarise the characteristics of energy use at the school.

Lesson idea from Wiltshire Council

Topic Focus: Energy Usage		**Session:** 1
Length of session: 1h		**KS/Year group:** Year 5/6
Curriculum Reference: Maths -: Ma4 Handling data 1a,f. 2a,c Science -: Sc1 2i,j		
Eco-Schools topics covered: Energy		
Objectives - To learn about the effects energy usage has on the environment. To find out how much energy your school uses and to be able to compare the data to other years and other schools. To learn about the link between CO_2 and energy.		
Time	Activity	Resources
15min	**Introduction** What is energy? Where does it come from? Why do we need energy? Get children thinking about circuits they have made. How do we know how much energy our school uses? Introduce Dynamat Lite data – how it is measured and recorded.	PowerPoint slides
30min	**Main activity** A group introduction to SCORE – then answering questions for investigation.	Website/password details and questions
15min	**Plenary** **Doing an energy walk of their classroom and creating an energy action plan for their room. Create an energy pledge for how they will use the rest of the school in an energy wise way.**	Paper for action plans
Additional notes: **Teacher to analyse energy usage for following week so children can see if their actions have had an effect.**		

Topic Focus: Energy Usage		**Session:** 1
Length of session: 1h		**KS/Year group:** Year 3/4
Curriculum Reference: Maths -: Ma4 Handling data 1a,f. 2a,c Science -: Sc1 2i,j		
Eco-School topics covered: Energy		
Objectives - To learn about the effects energy usage has on the environment. To find out how much energy your school uses and to be able to compare the data to other years and other schools. To learn about the link between CO_2 and energy.		
Time	Activity	Resources
15min	**Introduction** What is energy? Where does it come from? Why do we need energy? Get children thinking about circuits they have made. How do we know how much energy our school uses? Introduce Dynamat Lite data – how it is measured and recorded.	PowerPoint slides
30min	**Main activity** Groups to have a graph on their table of their schools data from the past week and a set of questions to answer as a group relating to graph.	Data in table Graph paper
15min	**Plenary** **Doing an energy walk of their classroom and creating an energy action plan for their room. Create an energy pledge for how they will use the rest of the school in an energy wise way.**	Paper for action plans
Additional notes: ***Teacher to analyse energy usage for following week so children can see if their actions have had an effect.***		