Challney High School for Boys

Energy Conservation

@ChallneyBoys

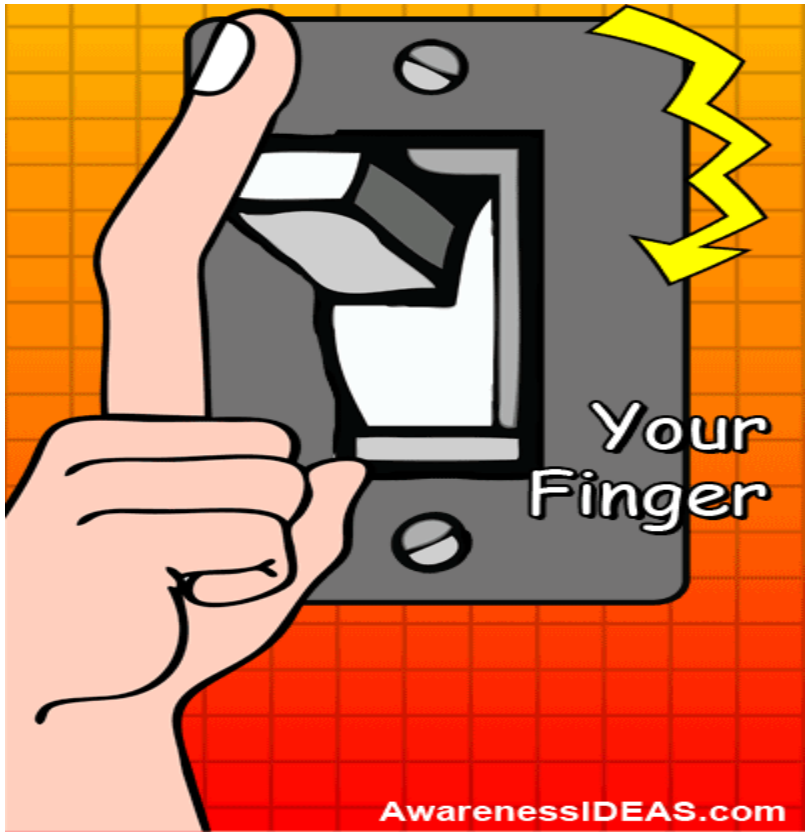
CHALLNEY
High School for Boys

Ofsted
Outstanding
Provider

MAT Hub Lead School
Behaviour
HUBS

CHILTERN
LEARNING
TRUST

Energy Conservation for Challney High School for Boys

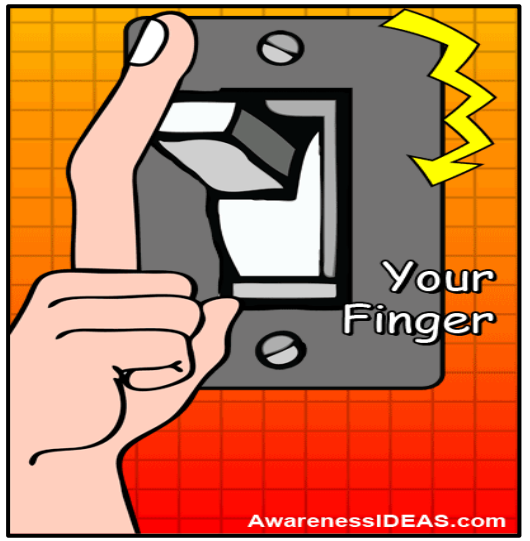


Our Challney Boys

What is Energy Conservation?

- Energy conservation is using energy efficiently to reduce wastage.
- Using energy mindfully as some sources are non-renewable thus we need to use it in a manner that ensure the future will have enough.

  This is known as sustainability.



To reduce energy usage at Challney Boys school to keep in line with the Department of Educations policy to have all schools becoming net zero.

Aim of the Project

Plan of action

- Install motion sensor light switches in all classrooms
- Change our appliances
- Expand our Challney Green roles
- We strongly believe that the installation of these energy saving mediums in our classrooms will greatly reduce our energy use.

Effectiveness of Motion Switches

- According to Ellen Sarkisian in her article posted on the Ecoguide.org website motion sensor light switches can reduce energy consumption by 35-45 percent, and can go up to as high as 75 percent.
- Reference.

Current usage and projected savings

Without motion sensor switch

July 2023
23,103.5 KWh = £8,815.48

November 2022
31,939.8 = £11,646.73

December 2022
32,021.9 = £11,704.62

January 2023
37,592.4 = £14,819.63

With motion sensor switch

July 2023
Usage would be 15,017.275 KWh

November 2022
Usage would be 20,760.87 KWh

December 2022
Usage would be 20,814.235 KWh

January 2023
Usage would be 24,435.06

Potential Savings to School

November 2022

- Savings would be 11178.93 KWh saving £4136.20

December 2022

- Savings would be 11207.665 KWh saving £4146.84

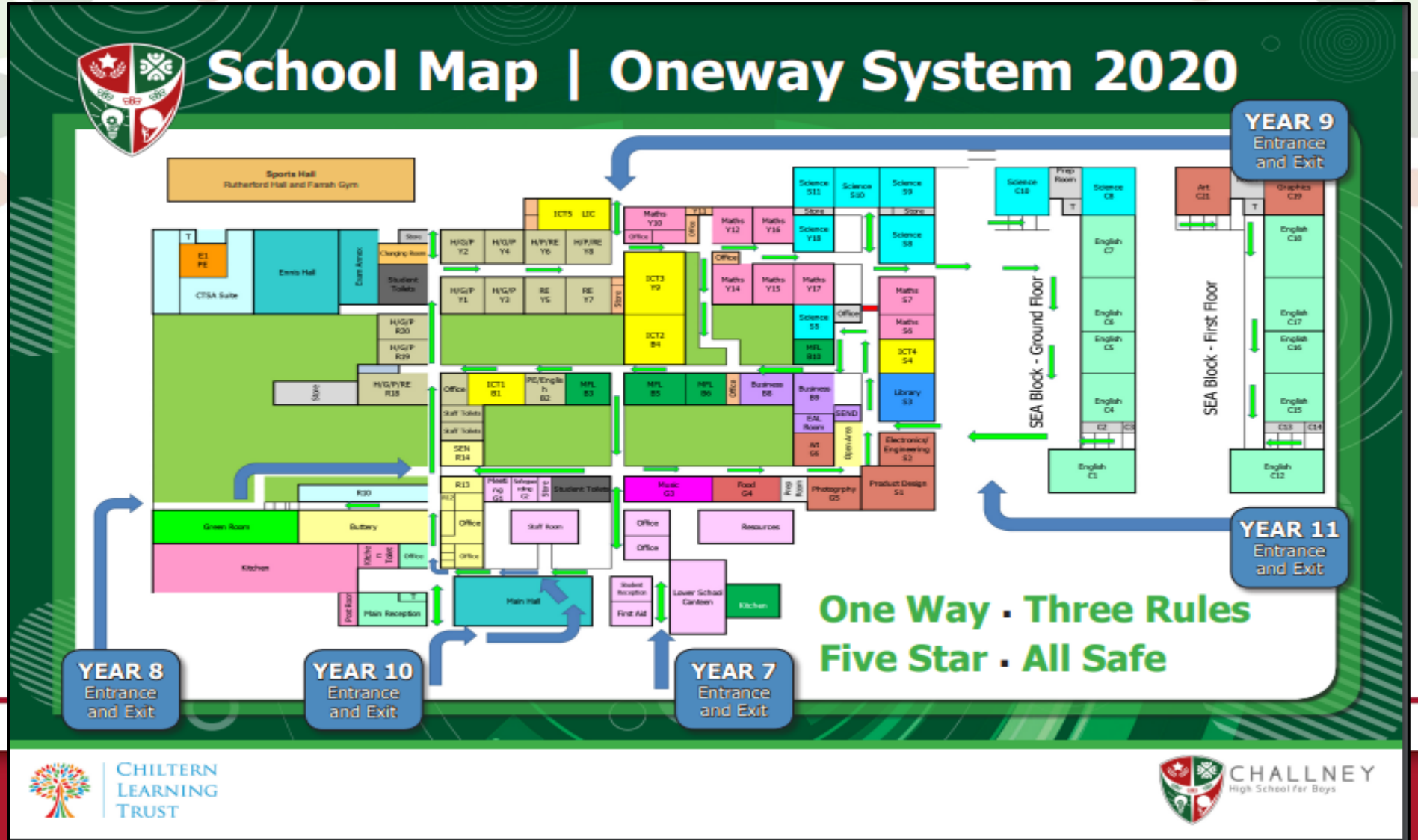
July 2023

- Saving would be 8086.225 kWh saving £2991.90

January 2023

- Savings would be 13157.34 kWh £4868.22

Number of Rooms



Potential Savings to School

- 75 rooms
- 75 x £15(per switch) = £ 1125
- Labour costs £60 per hour
- 12 hours labour
- £720 labour costs
- £720+£1125

£1845 total, which is £1146.90 less than our lowest cost saved, which is a small price to pay for the long term impact on the environment and school's finance.

Plan of Action

- Expand the roles of the Challney Green team

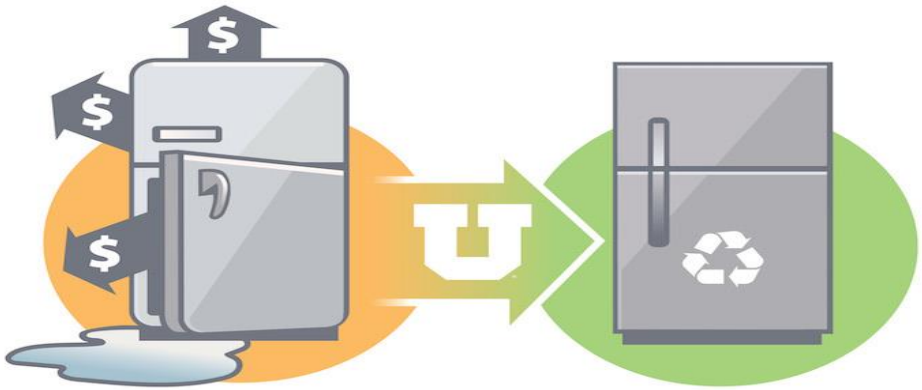
- The Green team is a group of students whose responsibility will be to remind everyone to switch off electrical devices when not in use.

- This will be our sustainability plan to ensure that our actions and plans will live on with the incoming new members of this club.

Plan of Action

- Replacing old appliances

- Old appliances are prone to be less efficient in their operations. We will conduct and inventory of the age of our resc recommendations to the schoo about having them replaced wi efficient ones.



Plan of Action

- On average, per year, a newer fridge-freezer could save up to £113 per month. That's one of many examples.
- This may sound little, but adds up over time in order to save money and reduce emissions
- Source

COST OF APPLIANCES BY ENERGY EFFICIENCY							
Appliance	Cost per year by Energy Rating for typical usage						
Energy efficiency rating	A+++	A++	A+	A	B	C	D
Washing Machine	£28	£32	£37	£42	£48	£54	£62
Dishwasher	£39	£45	£51	£58	£66	£75	£86
Fridge	£13	£17	£23	£36	£39	£43	-
Fridge Freezer	£38	£50	£63	£76	£114	£151	-

Plan of Action

- Energy reducing day - Green day

- We believe that if we could have at least one day per month or week when we limit the use of electronic devices in the entire school there would be a reduction in our energy consumption.