

Environmental Progress Report



Introduction from Sue Woodroffe, Principal

The moral imperative on all organisations to operate in as green a way as possible has never been clearer.

With ambitious targets internationally and our own active eco-committee in school, GSAL is now aiming for the Eco Schools Green Flag, encouraged and committed to the mission by the student environmental leaders and colleagues from our own estates team.

We were delighted when two of our pupils were selected to attend COP26 in Glasgow earlier this academic year but we also want to keep increasing pupils' awareness of environmental and sustainability issues, in lessons and beyond, including our annual celebration of Earth Day.

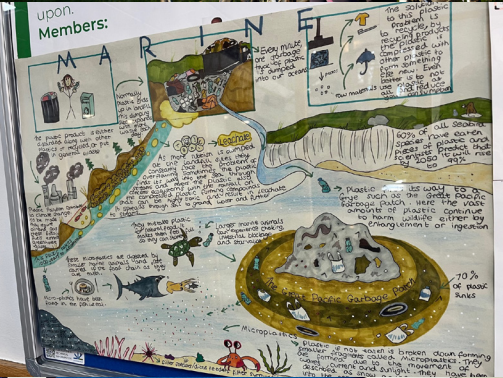
Of course we want GSAL to be as green as it can be, but we also want to set up the conditions and the learning for our pupils to live greener and healthier adult lives once they have left us, as responsible global citizens.

Our environmental mission

The Grammar School at Leeds is committed to reducing its environmental impact. Our goal is to reduce our use of precious resources, while protecting our environment and local biodiversity for future generations. We continually monitor ways to lower our carbon footprint while maintaining our outstanding educational offer.

Building a sustainable learning environment

Over the last few years, the school has taken a range of initiatives to create a greener, more sustainable learning environment.



Energy: switching to a brighter future

Internal light replacement programme

By far the largest energy saving project has been the switch from traditional fluorescent tube lighting to LED lights across the Alwoodley site, which took place in 2019. Internally, LED lights have been fitted across the whole of the primary school and around half of the senior school so far.

What's the benefit?

An LED light uses half as much energy as a fluorescent fitting and can last up to five times longer. In addition, LEDs are more powerful and so fewer light bulbs are required to effectively illuminate a space. On average, classrooms use four fewer LED lights than traditional fluorescent bulbs.

How much energy have we saved?

We've replaced approximately 2100 fluorescent lights which use 56 watts of electricity per hour with approximately 1800 LED lights which use 36 watts of electricity per hour.

Total saving: 52,800/ 52.8kWh.

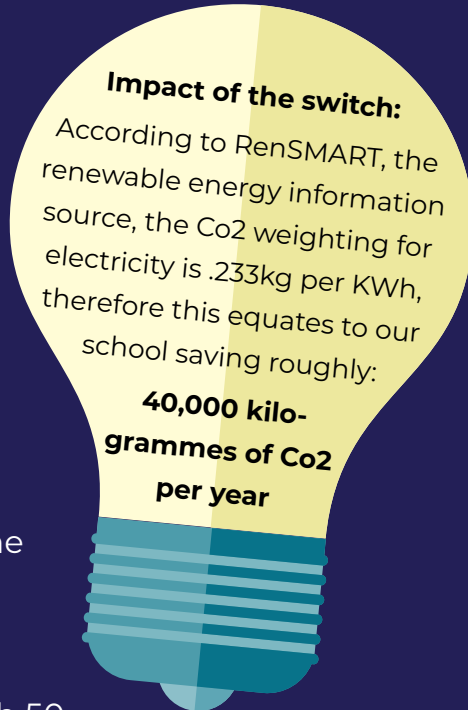
External light replacement programme

The school has replaced 60% of our external lights with LED lighting. This includes:

- large flood lights on the Astroturf pitches
- floodlights on one of the tennis courts on completion of the new sports barn

How much energy have we saved?

We have replaced 56 lights that use 2000 watts of energy with 50 new LED floodlights that use 1300 watts per fitting per hour. **This is a saving of 47,000/47kWh.**



Recycling

Clothes recycling

The school is working with Zero Waste Leeds to donate white shirts, polo shorts, black trousers or joggers, school shoes, tights and red or blue sweatshirts. Donations have steadily increased with more than 1,300 items to date.

Parents also run a second-hand uniform shop to save resources by recycling uniforms.



Sustainable food and drink

Our refectory and sixth form café serve a wide choice of freshly cooked food, using locally sourced ingredients. We avoid highly processed food and encourage children to eat healthy meals with plenty of fruit and vegetables.

In addition, the following initiatives have made our kitchens more sustainable and cut out the amount of waste we produce:



Waste reduction

Cutting food waste

Our poster campaign in the refectory highlighted issues around food waste and has had a positive impact on the amount of food thrown away. As a result of this, plus other waste awareness campaigning around school, we have managed to cut the number of waste collections from three to just two per week.

Cutting paper and ink waste:

- the copying machines have been replaced with energy-saving photocopiers
- our paper-cut printing request directs printing to the most appropriate and efficient machine
- we're gradually replacing our old ink jet printers with more efficient laser printers to eliminate ink cartridges

Robust maintenance keeps boilers tip top

Our robust maintenance routines have resulted in our boilers running at maximum efficiency. The normal life expectancy of this equipment is only 20 years, but with our maintenance programme we have been advised that our current boilers will remain good for at least another five years.

Flushing boosts underfloor heating

Prior to flushing, 40% of the underfloor heating system was blocked. Flushing this through has increased its efficiency and reduced the amount of power required for our underfloor heating system.

Biodiversity

We are focussing on encouraging more biodiversity across our school grounds.

Restoring a natural balance

Ponds: During the summer of 2021 the school carried out extensive work to clear our ponds. Our ponds had become overgrown and neglected, have been restored and are now visited by many different birds, amphibians and insects. The retention pond helps maintain natural watercourses and sustains surrounding habitats.

Protecting natural woodland: We are working to protect our extensive natural woodland, which contains a mixture of very old oak trees and newer trees. The grounds also comprise protected hedgerows.

Greener school grounds

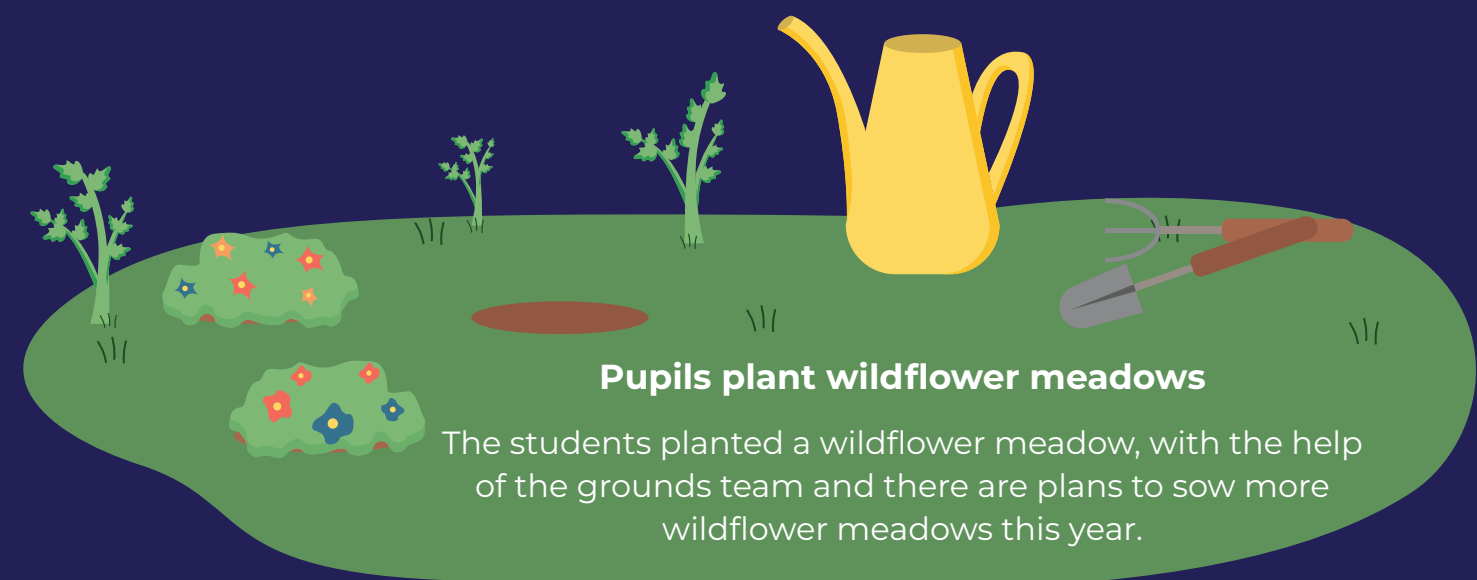
Peat-free compost: The grounds team last year switched to peat-free compost for planting out seedlings.

Less polluting works equipment: In 2020, the grounds team traded in a large tractor for a new, smaller tractor which has significantly lower fuel emissions.

Cutting construction site traffic: The construction of the new 3G pitch and sports barn produced significant amounts of waste soil. Rather than send this soil off-site, the school distributed it around the grounds, saving more than 120 vehicle journeys off site.

Controlling invasive species: The school Scout group is working on seasonal projects to eradicate an infestation of Himalayan Balsam.

Eco committee tree planting: Students removed plastic tree guards, researched and designed a woodland planting scheme for 14ha on Manor House Lane pitches and will plant Jubilee Trees on the Scouts area.



Cutting our carbon footprint

We moved our nursery and pre-prep provision from a separate site at Rose Court in Headingley to Alwoodley Gates in September 2020 which means the whole school is now on one site.

This shift to a single site has significantly reduced the school's carbon footprint by cutting our energy for heating and power. It also resulted in fuel savings through:

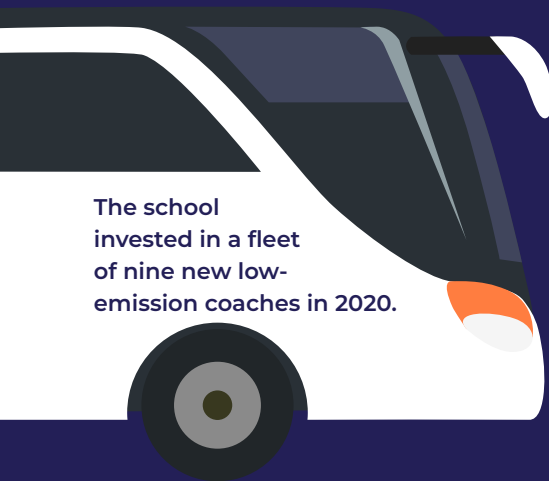
- fewer car journeys between the two sites for school staff
- the shuttle bus no longer transports staff and pupils between the two sites
- fewer journeys for parents who had siblings at nursery and in other parts of the school
- contractors, waste collectors and delivery vans now only attend one site rather than two

How much energy have we saved?

It is estimated that this move has resulted in the saving of 128,000 Kilogrammes of Co2 per year in gas and electricity. These are real savings since we have not increased the size of the Alwoodley Gates site, except for a small modification to the kitchen area for Early Years Foundation Stage (EYFS) food provision. Therefore, the energy required to maintain the Alwoodley site has remained the same.

Greener travel and transport

The school has updated its public transport provision and is working towards more eco-travel for parents, pupils and staff.



The school invested in a fleet of nine new low-emission coaches in 2020.

Low-emission buses

These buses are Euro 6 compliant which is the lowest possible emission range in conventionally fuelled diesel vehicles. Exhaust gases such as carbon monoxide, nitrogen dioxide and particulate matter particularly affect children, the elderly and those suffering from chronic respiratory diseases.

During the procurement process, the school assessed the viability of electric-powered vehicles, but after extensive evaluation decided there was still not enough infrastructure to support electric vehicles at the current

time. The range of an electric bus is not currently long enough to power a whole day on a single charge from school, but we will look at electric vehicles again in future.

Energy savings associated with school transport:

GSAL's school bus service transports more than 600 children to and from school every day. Whilst it is difficult to quantify exactly how many individual car journeys this saves; we are confident that this translates to a **saving of at least 800 car journeys every day**.

Express drop off

Our express drop off area speeds up the process for parents driving their children to school.

Electric charging points

We have installed electric vehicle charging points to the rear of the school. We intend to provide more charging points as the number of electric vehicles used by staff increases.



Key initiatives for the future:

Renewable energy schemes

Solar panels

We have been investigating the possibility of installing solar energy panels and have looked at many different schemes. However, a small affordable scheme can only deliver a fraction of the school's electricity requirements. To generate enough energy from solar panels, we would need to invest several million pounds. The cost benefit analysis indicates that it is currently unviable, but the school remains committed to revisiting this option as technology develops.

Wind turbines

Out of all the renewable sources of power, wind turbines are regarded as the most cost effective. Schools that have installed wind turbines have reported saving around £3,000 a year on electricity bills. An output of 50,000 kwh a year saves around 21 tonnes of carbon dioxide a year.

We are seriously considering this option. However, since the school is located on green belt land, this creates planning permission issues. If the government relaxes its onshore wind planning rules, the school will revisit the idea of a wind turbine.

Tree planting

We are planting 200 whips or tree seedlings in various locations around the school grounds. We're very keen to plant more trees and are working with community forest group, White Rose Forest. Our intention is to plant trees on 15 hectares of scrub land that the school owns on Manor House Lane.

