



# **Plastic Pioneers**

**Impact report**

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# Executive Summary

# Executive summary

Plastic pollution is a key challenge for governments, businesses and communities to tackle given the environmental damage caused by the poor management of global plastic waste. Every minute, the equivalent to a rubbish truck full of plastic is emptied into the world's oceans<sup>1</sup>. Schools have a critical role to play in:

- raising awareness of the challenges and solutions,
- developing green skills and habits, and
- modelling plastic leadership for their communities to follow.

Through partnering with 12 schools representing 7,000 pupils and 1,300 staff, Plastic Pioneers reduced waste by nearly 500,000 items of single-use plastic, raised pupil awareness and changed the habits of entire school communities. Interventions ranged from zero cost policy changes to more significant infrastructure investment. Plastic Pioneers has demonstrated that schools have a significant role to play in tackling plastic waste today, and in the longer term. In so doing, schools themselves benefit from reduced waste volumes, fewer litter issues and more "green-skilled" pupils.

Engaged education professionals can achieve significant plastic improvements in individual schools. However for schools across the UK to contribute to plastic waste reduction, Senior Leadership Teams will require impetus, guidelines and some investment to achieve nationwide systemic plastic waste reduction.

The five critical components for success include: Education, Impetus, Community-wide communication, Strong leadership, and Measurement and recognition.

## Education

- Environmental understanding across pupils is highly polarised, ranging from incredibly well-informed young activists to young people who are not aware of basic concepts.
- The most successful pupil-driven plastic reduction was achieved after strong educational events.
- Education improved both plastic understanding and invaluable life-skills.
- To achieve short-term gains in tackling plastic pollution, education is the essential foundation from which to build any programme.

- Without addressing environmental knowledge inequality, less-aware young people will struggle to contribute to a more sustainable future.

## Impetus

- Even prior to COVID, teachers were busy! External support for schools is highly beneficial to provide resources, knowledge and manpower to drive environmental education and engagement.
- School policy changes led to the most significant reductions in single-use plastic.
- Refill points represented the single largest investment which facilitated significant reduction in single-use water bottles in relevant schools.
- Having developed a successful internal network of environmental leaders, schools were motivated to continue without external support.
- COVID has been perceived to be a significant set back to schools' plastic reduction plans due to financial, resource and policy pressures.

## Community-wide communication

- Schools benefitted from introducing Plastic Pioneers to all school stakeholders – pupils, staff across the curriculum and parents/carers.
- Schools that promoted ongoing school-wide communication gave Plastic Pioneers a platform that benefitted pupils both at school and at home.
- Local press and social media posts regarding plastic reduction brought favourable interest in participating schools from prospective parents and the wider local community.
- Plastic Pioneer coordinators benefitted from case studies and tips shared within the Plastic Pioneer community of experts and schools.
- The Ultimate Challenge (see page 17 for more) enabled pupils to share experiences and ideas between schools.

## Strong leadership

- Strong Senior Leadership Team support facilitated more rapid and significant reductions in single-use plastic.
- Strong school leadership facilitated policy changes that required little financial investment.
- Nurturing a leadership culture in staff across the curriculum facilitated plastic learning that was successfully and creatively reinforced throughout the school.
- Pupil Plastic Pioneers who were given leadership opportunities amongst their peers inspired significant pupil engagement in plastic reduction.
- To maximise impact, the Plastic Pioneers programme intentionally developed teamwork and leadership skill building opportunities which pupils greatly enjoyed.

## Measurement and recognition

- Due to the tangible nature of plastic, schools were able to observe and reward positive plastic behaviour e.g. reusable water bottle use, single-use plastic-free lunchboxes.
- Schools that consistently and accurately measured and rewarded positive plastic behaviour nurtured new habits that significantly reduced plastic waste and litter.
- Plastic reduction could be easily measured through monitoring canteen sales figures, observing reusable water bottle use or measuring the weight of plastic waste – all activities to develop mathematical and teamwork skills.
- The means of rewarding plastic reduction varied with school culture. Rewards included: reward points, certificates, badges, “shout outs”, feature articles, prizes and privileges.
- Attending pupils considered the Ultimate Challenge event to be an excellent reward.



**About**

**Plastic Pioneers**

# The idea

In response to the UK Government's call to eliminate single-use plastic in schools by 2022, TK Maxx and Homesense and Homesense collaborated with Hubbub to experiment with pupil-led ideas to showcase how this ambition could be achieved.

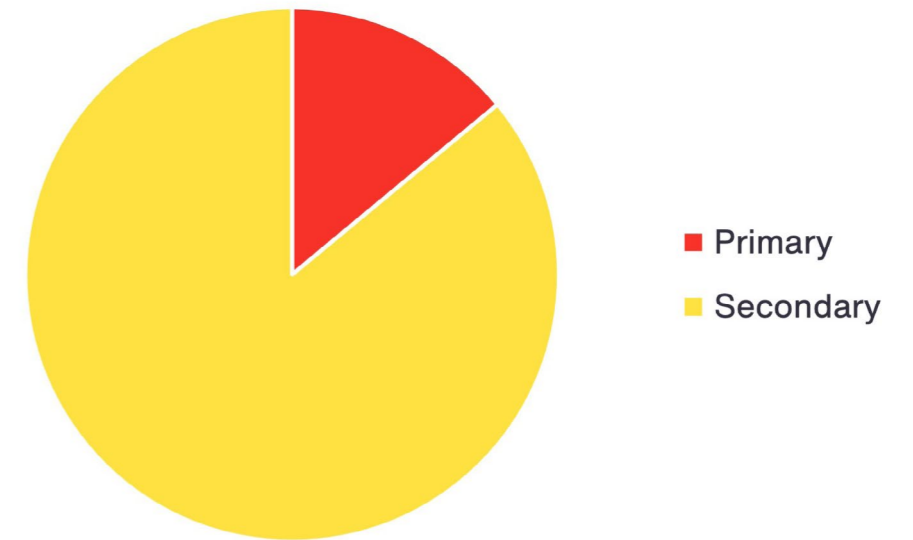


## Plastic Pioneers throughout the UK

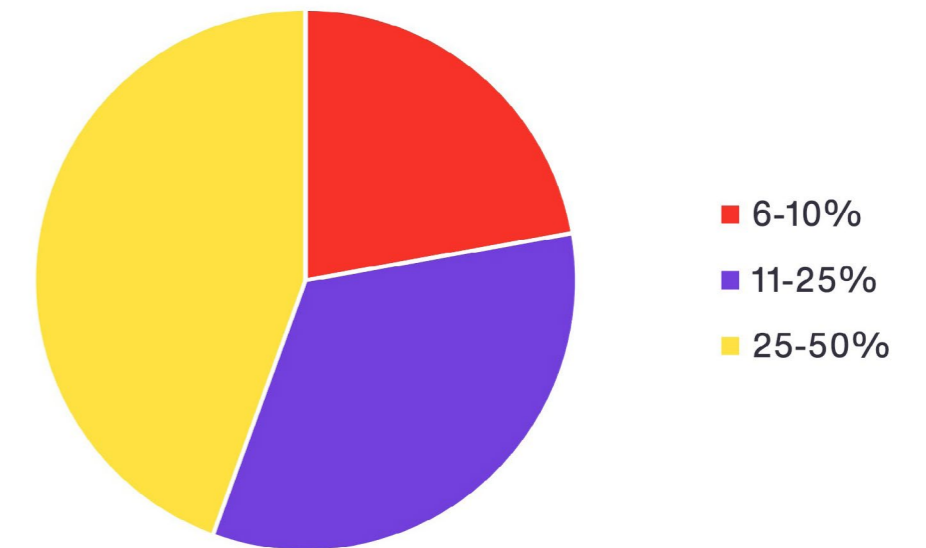
Plastic Pioneers was rolled out across 12 schools around the UK, directly impacting over 7,000 pupils and 1,300 staff.

# Who are the Plastic Pioneers

Plastic Pioneer participants by school type



Plastic Pioneer schools by % of free school meals\*

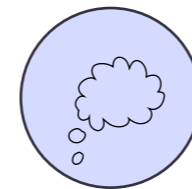


\*Based on responses from 9 out of 12 participating schools

# The approach

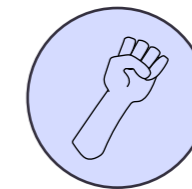
- Twelve diverse volunteer schools were selected from across the UK. This included both primary and secondary schools.
- Single-use plastic waste audits were undertaken at each of the schools to explore opportunities and challenges to reduce single-use plastic.
- Based on the audit results, a range of activities were recommended for each school to eliminate single-use plastics.
- Foundation steps were established across all schools to ensure each had a strong footing from which to develop their own plastic reduction plans:
  - Plastic Pioneer pupil committees were created to initiate and drive change in the school.
  - regular meetings between the schools and Hubbub (or its local partners) were scheduled to facilitate progress.
  - a menu of plastic reduction options for the pupils to decide between was created that centered around education, infrastructure and communication.
- Two Ultimate Challenge events were scheduled to conclude the programme enabling pupils to network across schools, share ideas and develop key leadership skills to furnish the pupils with invaluable experience to become future agents of change.

# Steps to succeed



## Foundation steps

Invest time in understanding key challenges, goals and responsibilities



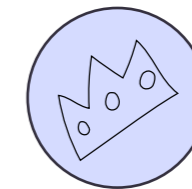
## Build

Create policies and invest in relevant infrastructure to enable change



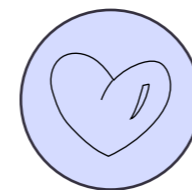
## Pupil led

Empower pupils to instigate and drive change



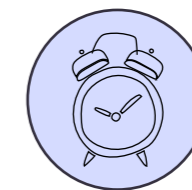
## Bespoke

Create a plastic reduction plan that is specific to each school's needs and capabilities



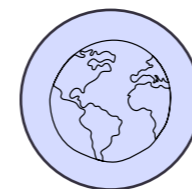
## Broad commitment

Agree support from senior management, cross-curricular staff and other stakeholders such as caterers



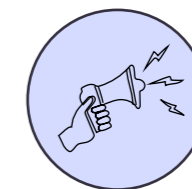
## Life skills

Incorporate opportunities for invaluable life experience learning and personal development



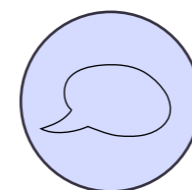
## External input

Provide stimulus from supporters and advisers external to the school



## Communicate

Share details of plans and achievements to the entire school community—recognition motivates action



## Educate

Create a firm foundation of knowledge and awareness in pupils, staff and parents





# The Ultimate Challenge

## What?

Two Ultimate Challenge events were scheduled at the end of the programme to bring together the Plastic Pioneers across different schools to develop and present solutions to single-use plastic challenges set by TK Maxx and Homesense. Sadly, one of the events had to be cancelled due to the COVID lockdown.

*“If we all work together we can achieve a common goal.”*

*Pupil*

## Why?

To create a finale event allowing pupils and teachers to:

- share ideas
- develop key life skills such as networking, teamwork, communication, critical thinking and presenting
- celebrate pupil and teacher commitment

*“They’ve certainly learnt lots of skills - what we call will make them life ready, it’s given them confidence to talk to other people, to understand that they can work with older pupils, and just to understand that it’s good to have ideas.”*

*Teacher*

## So?

- This was a hugely successful event providing pupils with invaluable experience to build confidence and experience for environmental engagement (and beyond)
- Learn more about the event in [this short film](#)

*“People care a lot more about the environment than I thought.”*

*Pupil*

Impact

# Big picture achievements

- Active engagement was achieved with pupils and staff in all schools.
- Reduction in plastic was achieved in all schools - although the scale of the impact varied greatly between schools.
- Schoolwide plastic awareness increased in all schools.
- Investment in plastic reduction infrastructure was provided to all schools. This ranged from temporary items, such as reusable water bottles, through to fixed high-quality water refill points.
- With active support from Hubbub and its local partners, each school created its own bespoke single-use plastic reduction plan, many of which evolved with deepening plastic understanding.
- Over 30 different interventions were adopted across the schools – the more interventions a school adopted the greater the school’s plastic reduction.
- 55 attendees from four schools participated in a successful programme conclusion event which enabled pupils to:
  - develop invaluable life-skills e.g. networking, teamwork, critical thinking, presenting
  - share plastic best practice
  - reward achievements of pupils and teachers

# The difference made in numbers\*



**144,077**  
single-use water bottles saved every academic year



**31,160**  
single-use coffee cups saved every academic year



**102,790**  
single-use water cups saved every academic year



**166,630**  
items of single-use cutlery saved every academic year



**16**  
lines of plastic wrapped food removed from the canteen



**35,340**  
canteen serving trays saved every academic year



**360**  
pieces of lamination saved every academic year



**76kg**  
of lunchbox packaging saved every academic year

\*These are weekly figures from 10 school responses that have been annualised for an entire academic year assuming COVID had not closed schools.

# Beyond the Pioneers



3 Plastic Pioneers videos, over 28k views

11 partners supporting delivery

11 schools registered for any future roll-out of the programme

32 items of press coverage, reach of 1.5 million

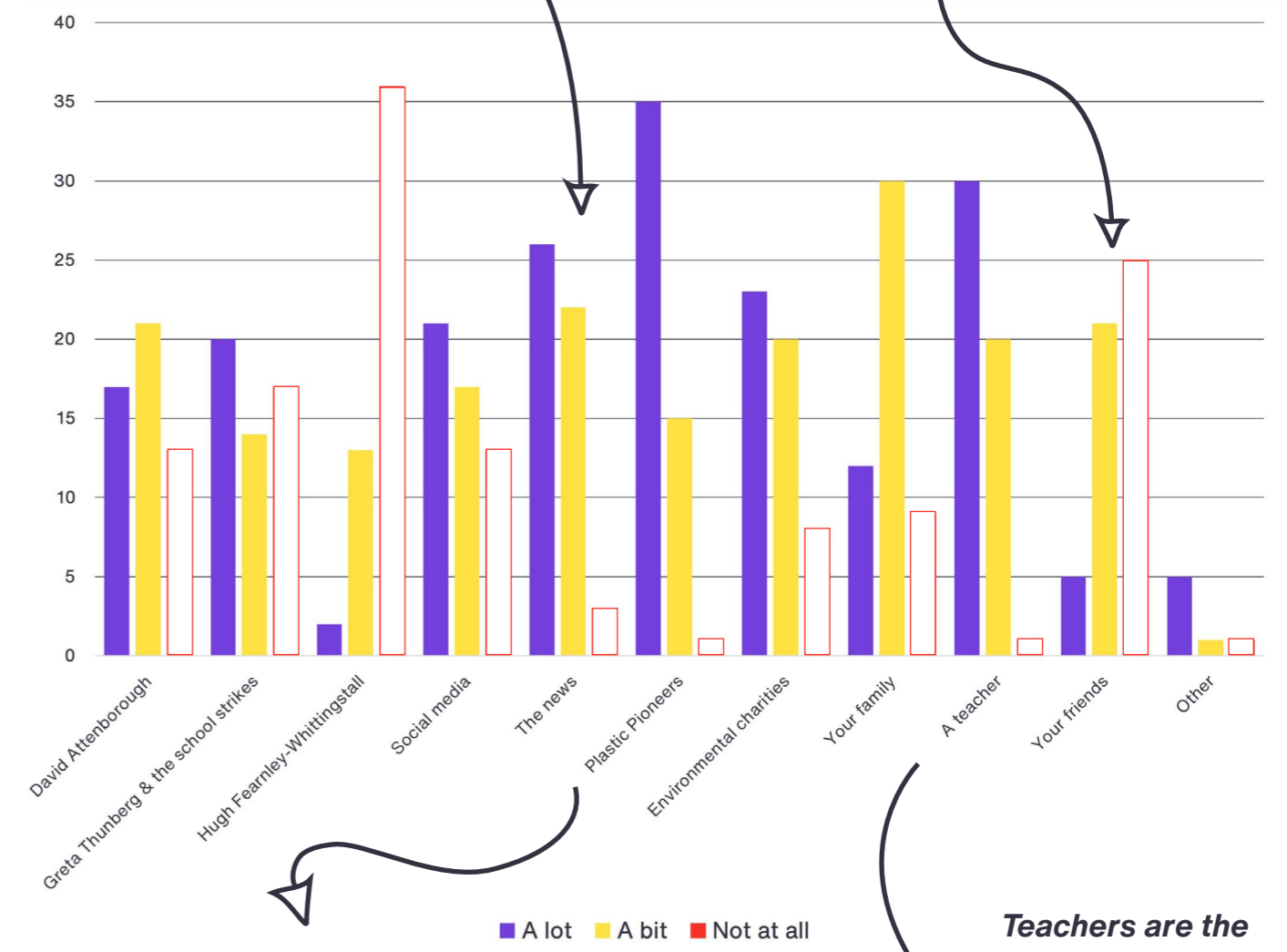
1,500 views of the Plastic Pioneers webpage

345 social media posts, reach of 174,000

# Who made the Plastic Pioneers think about single-use plastic?

The news is still an important information source for young people.

Young people are not talking about plastic together. Why?\*



A direct school-based education programme led to the most significant boost in plastic awareness

Teachers are the most significant influencers for plastic awareness - more than family, friends and eco-celebrities

Note: Based on 51 questionnaire responses from 4 out of 12 participating schools

\*Findings reiterated by Global Action Plan research <https://bit.ly/2RBQMMyH>

# How pupils are using less plastic\*

no plastic food wrap  
 reusing plastic recycling better  
 not littering reusable bags soap bars  
 talk to others  
**no lunchbox plastic** metal cutlery  
**reusable water bottles**  
**no single-use packaging**  
 beeswax wraps choosing glass or cans  
 biodegradable wipes bulk buy  
 cardboard packaging no plastic book covers

**Pupils developing plastic reduction habits**

# What pupils said about Plastic Pioneers

## “I have learned...

- ...how important the planet is and we need to help save it.”
- ...how much plastic actually goes into the ocean. I didn't take it seriously until now.”
- ...how to reduce single-use plastic and the damage of our planet.”
- ...how we can change a lot of things in our school to try and become more eco-friendly.”
- ...how to spread urgent messages about what we can do.”

*Pupils valued the opportunity to learn about the environment.*

## “I liked...

- ...being allowed to learn about the environment and plastic.”
- ...discovering what plastic is really doing to the environment.”
- ...learning about how to be in-charge of single-use plastic and how to cut down plastic.”
- ...how much work you can do involving plastic and what you can do around school.”
- ...the chance to work with new people.”

*Pupils empowered by learning how they can contribute to environmental solutions.*

## “I would tell my friends about Plastic Pioneers because...

- ...it is good to make you realise how big the problem actually is.”
- ...it's so fun and you learn a lot.”
- ... you are helping even if it is a little bit.”
- ...it makes a big difference.”
- ...it will boost their confidence and make them aware of plastic problems.”

*Pupils enjoyed learning life skills such as communication & networking.*

\* Based on 51 questionnaire responses from 4 out of 12 participating schools

# What staff said about Plastic Pioneers

## Launched school-wide platform for environmental engagement

- “Plastic Pioneers was a really good way to kickstart our plans to engage students in conversations about the environment. We wanted to make changes but needed the external impetus.” **Worthing Coordinator**
- “Really brilliant support both in terms of funding and communication for schools to kickstart an environmental movement in school.” **Manchester Coordinator**
- “The environment committee had to use their communication and leadership skills to deliver presentations to different groups and learn how to try to make people who didn’t care so much about the environment, care.” **Leeds Coordinator**

## Provided education opportunities not usually accessible for pupils given weak national curriculum coverage of environmental topics

- “The children are much more aware of the issues surrounding the environment and it’s been a really good way to get them engaged.” **Manchester Coordinator**
- “Their teamwork skills definitely benefitted from the project. They learnt how much of a difference one school can make and how they can make better environmentally friendly choices in school and at home too.” **Cardiff Coordinator**
- “They [the pupils] didn’t really know what single-use plastic was before Plastic Pioneers and now they are really aware of how much is used and why it’s important to reduce it.” **Falkirk Coordinator**

## Tangible benefits to the school

- “As a result of Plastic Pioneers, the school community has benefitted from less plastic, more environmental leaders, changes in the canteen attitude and more enthusiasm.” **Leeds Coordinator**
- “The best aspect of PP was having the external expertise, financial input and the fact that it made us think about both learning and doing.” **Watford Coordinator**
- “I find less plastic in my bin at the end of the day.” **Manchester Coordinator**
- “The kids’ awareness of litter has improved enormously and in turn they have changed their parents’ habits.” **Falkirk Coordinator**



# The bottom line\*

- 100% of the schools understood single-use plastic more as a result of Plastic Pioneers
- 100% of the schools will continue to reduce single-use plastic without Plastic Pioneers' funding
- 100% of the schools were more motivated to reduce single use plastic as a result of Plastic Pioneers
- 89% of Plastic Pioneer pupils would recommend the programme to a friend

*"We would wholeheartedly recommend Plastic Pioneers. It was a vehicle we used to drive through huge changes in school."*

*Bolton Coordinator*

*"An amazing experience for all of us, Plastic Pioneers should be in all schools."*

*Plastic Pioneer*

*"We will continue with PP without funding because the children want to! The school community has gained teamwork and more understanding of the issues."*

*Solihull Coordinator*

\*Based on responses from 10 out of 12 participating schools and 51 questionnaire responses from 4 out of 12 participating schools



# Case studies



# Case study - School A



## Interventions adopted

All pupils were given reusable water bottles, a Plastic Pioneers committee was established and given Plastic Pioneers badges. Three external plastic education experts hosted workshops for over 250 pupils, the school was given plastic education posters, resource recommendations and regular external support.

## School feedback

Unknown benefit as both key teachers involved in Plastic Pioneers left the school.

## The Plastic Pioneers experience

- A socially-challenged school, with teachers managing poor pupil behaviour, deteriorating school infrastructure and weak community communication.
- Extreme levels of littering from lunch packaging was a big challenge for the school.
- Weak Senior Management Team support led to a disempowered teacher-coordinator who struggled to gain traction with colleagues and pupils.
- The school required regular external support, encouragement and advice on how to invest Plastic Pioneers funds and action recommendations.
- Environmental awareness throughout the school was low.
- Appetite for the workshops was strong from interested pupils. Plastic Pioneers represented a unique educational opportunity and offered access to external experts.
- Even disengaged pupils appeared to gain:
  - everyday plastic awareness, learning relevant statistics and information e.g. the plastic life-cycle, the scale and impact of plastic pollution, understanding of how young role models have progressed solutions
  - good plastic habits e.g. how to recycle, how to save money and plastic, packaging tips to reduce litter
- Plastic Pioneers provided an excellent educational opportunity for pupils at this school. However, without consistent staff commitment, long-term improvements to pupil habits and school practice are unlikely to materialise.

# Case study - School B

## Interventions adopted

All pupils were given reusable water bottles and hundreds of pupils were given access to two external plastic-expert hosted workshops. The school purchased three water fountains, reusable water cups and hot drink mugs. The school was given award certificates, plastic education posters, resource recommendations and regular external support. A Plastic Pioneers committee was established and met intermittently. Plastic Pioneers were given Plastic Pioneers badges and attended the Ultimate Challenge event.

## School feedback

Significant reduction in single-use water bottles and plastic cutlery. Small reduction in single-use coffee cups and lines of plastic packaged food. Pupils, teachers and canteen staff all became engaged in reducing single-use plastic.

## The Plastic Pioneers experience

- Set in a socially-challenged city suburb, with a history of poor pupil behaviour but strong staff team working hard to improve the school.
- The Plastic Pioneers coordinator was an incredibly enthusiastic junior teacher.
- Senior Management Team support was inconsistent and initially unsupportive due to historic experience of poor pupil behaviour.
- The pupil committee was unable to meet regularly as after-school clubs meant pupils had to walk home in the dark which was considered dangerous, so the committee had to meet intermittently during lunchbreaks. Pupil enthusiasm was initially low.
- Progress was very limited before external support engaged a roundtable discussion with catering and business managers who identified the following key concerns preventing progress:
  - Water fountains and reusable water bottles would lead to water fights and poor pupil behaviour as in the past.
  - The canteen relied on the sale of bottled water to support revenue targets.

- This roundtable meeting and a subsequent pupil-led meeting significantly raised staff and pupil ambition and engagement. Successful solutions to reduced single-use plastic were implemented:
  - Fitting durable and sensor triggered water refill points limited the risk of excess water creating a slip risk.
  - Staff members identified water bottles that met the school's requirements of being transparent, rigid and without graphics.
  - Pupils successfully identified alternative canteen products that did not require single-use plastic packaging.
  - In addition to externally hosted plastic workshops, Plastic Pioneers pupils hosted educational assemblies for their peers to explain the problems of single-use plastic and how the school was directly taking action to tackle the challenges.
- Ultimate Challenge attendees were enthusiastic, knowledgeable and extremely capable team members.

*“Older pupils had a lot of respect for the younger pupils who were willing to run the assemblies. It set a school-wide precedent for respect for the environment.”*

*“A lot of the pupils I've worked with have become more engaged in geography and they've built a network amongst themselves and made friends and I've made a network amongst staff.”*

# Case study - School C

## Interventions adopted

A Plastic Pioneers committee was established and given Plastic Pioneers badges, all pupils attended an Everyday Plastic educational assembly, all pupils given a reusable snack pot, the school was given recycling bins, plastic-free fair prizes, plastic education posters, certificates, recycled plastic benches, reusable shopping bags and paint, water jugs, resource recommendations and regular external support. All Plastic Pioneers pupils attended the Ultimate Challenge event.

## School feedback

Uplift in reusable bottle use, lamination was completed stopped in the school, some plastic was removed from the canteen. "Plastic Free Friday" policy significantly reduced lunchbox waste plastic. All school stakeholders (pupils, parents, canteen and school staff) actively engaged with Plastic Pioneers and proactively identified the best uses for the TK Maxx and Homesense funds and adapted school policy to reinforce the use of the new assets.

## The Plastic Pioneers experience

- A medium sized primary school located in a residential suburb with a dedicated and highly motivated business manager coordinator.
- The well-liked and very effective coordinator gained support from a range of teachers, specifically one very eco-engaged form teacher.
- Plastic Pioneers had a very prominent dedicated board in the school that was maintained with plastic-reduction achievements and pupils were encouraged to interact with the board by writing up their plastic reduction ideas.
- Pupils were nominated in each form to become a Plastic Pioneer and in turn provided updates and education to their forms to ensure school-wide learning and participation.
- Regular Plastic Pioneers meetings hosted by highly engaged and empowered eco-teachers who organised a range of activities and projects that extended beyond Plastic Pioneers to other environmental initiatives.

- Everyday Plastic assemblies to pupils proved a great source of education to motivate pupil action and school policy changes.
- The school parents' association actively requested suggestions and ideas to reduce single-use plastic at school events.
- Despite being amongst the youngest Ultimate Challenge attendees, all pupils proved to be excellent team members highly capable of successfully working with secondary school pupils who they had never before met. These pupils also successfully presented their ideas to a conference room of people.

*"We have loved being part of the campaign. This is only the start of our journey as we have lots that we want to do in the future!"*

*"We are doing plastic free Fridays and at home we've tried to stop using plastic."*

**Learnings**

# What went well

## **Prioritising bespoke pupil-led solutions optimised engagement and plastic-reduction.**

- Encouraging each school to create its own bespoke single-use reduction plan to tackle issues relevant to its community increased each school's sense of responsibility over their investment.
- Empowering pupils to initiate ideas and drive implementation inspired greater buy-in from adults and peers.
- Deterring schools from immediately investing in recycling bins encouraged more creative and effective ideas to reduce single-use plastic at source.

## **Creating collaborative networks shifted ownership from an individual to a supportive team that increased long-term commitment.**

- Promoting schoolwide knowledge through assemblies, drop-down days and Plastic Pioneer pupil class leadership nurtured community-wide buy-in to plastic reduction initiatives.
- Providing a high-profile and vibrant platform for eco-engaged staff and pupils increased schoolwide environmental engagement.
- Enabling pupils to negotiate directly with relevant staff such as the catering or facilities manager was a very effective method to overcome embedded "plastic intense" practices and habits.
- The Ultimate Challenge event was considered an excellent opportunity for pupils to share best practice and develop professional life skills including networking, communication, idea generation, collaboration and presentation.

## **External support provided invaluable momentum to maintain plastic reduction progress.**

- Embedding plastic education into the programme was essential to raise the understanding and motivation to tackle single-use plastic in communities where environmental literacy was far from universal (in adults and young people).
- Input from external experts was considered invaluable for developing ideas for change and providing supportive resource for staff.
- External funding to invest in infrastructure to facilitate plastic-reduction ambition significantly boosted the efficacy of the programme.
- Positive press coverage nurtured greater engagement from senior leadership teams and provided invaluable recognition to Plastic Pioneers pupils and staff.

# How to evolve

## **Creating a clear structure would enable schools to set better expectations of what to achieve from Plastic Pioneers.**

- Select motivated school coordinators that are empowered to successfully drive progress and select appropriate investments.
- Set Foundation Steps to achieve before applying for bespoke expenditure. (Please see following page for suggested Foundations Steps.)
- Replace the initial audit process with a kick-off discussion with Plastic Pioneer pupils and staff to allow them to identify their own plastic-reduction plan.
- Provide clear budgetary advice and offer a menu of costed investment options.

## **By complementing the school calendar, staff and pupils would be better able to dedicate time to Plastic Pioneers.**

- Follow an entire academic year to complement the pupil journey.
- Provide a clear overall structure for the academic year with key progress milestones.
- Schedule an official launch assembly with a video to recruit pupils and staff.
- Schedule termly coordinator meetings via video conference.
- Schedule regional Ultimate Challenge events to celebrate achievements at the end of the Summer Term.

## **Prioritising education and collaboration facilitates longer term progress.**

- Utilise case studies/alumni from Plastic Pioneers 2019/2020 to inspire and educate future schools.
- Provide greater support to challenged schools that are more disengaged with environmental education due to competing priorities.
- Nurture greater communication between schools to create a support network for all teachers interested in tackling plastic pollution (and other environmental issues).
- In the specific case of PFI schools, all invested stakeholders must agree to participate in the programme.

# Foundation steps

**Foundation steps are critical to creating a strong and visible foundation from which to build the Plastic Pioneers' ambition to reduce single-use plastic within the school.**

- Create a pupil Plastic Pioneers committee and schedule regular meeting opportunities
- Create a Plastic Pioneers staff support team
- Give the programme status within the school with:
  - a dedicated notice board
  - a column in the newsletter
  - school social media posts
  - a reward scheme for plastic reduction achievements
  - certificates/badges/prizes for engaged pupils
- Launch the ambition school-wide via:
  - a headteacher assembly supported by pupils
  - a newsletter announcement
  - posters throughout the school
  - letters to staff and parents
- Agree a schedule for activities: cross-curricular lessons, assemblies, litterpicks, drop-down days, events, target deadlines and Ultimate Challenge participation

***“The best part of PP was the pupil committee. The solid goal gave us a platform to start from and money and support to do it with.”***

**Leeds School**

***“Having SMT support is huge, having them on board made making changes so much easier.”***

**Bolton School**



# Review of interventions



# Interventions - Infrastructure

Intervention	Impact	Cost	Notes	Participant thoughts
Reusable water bottles	★★★★	£ - ££££	Schools chose the model/style and how to distribute. Gifting the bottles made an excellent statement but were easily lost and considered wasteful by pupils who already had reusable water bottles. Schools could sell subsidised bottles or make reusable bottles an obligatory part of school kit.	<i>“Giving out the reusable bottles made the biggest impact on my life as I use mine at home as well as in school and on walks with my family.”</i>
Snack pots	★★★★	££££	Pupils qualified for reusable snack pot container gifts. Gifting was accompanied by a school wide competition and plastic-free Friday policy.	<i>“Pupils really benefitted from the snack pot competition.”</i>
Lunchboxes	★★★★	££££	Lunchboxes were distributed alongside education to both parents and pupils regarding plastic-free and healthy lunch ideas.	<i>“Children who were bringing their lunches in plastic bags and clingfilm suddenly shifted to lunchboxes. Explaining tips to pupils and parents also helped them to make healthier choices.”</i>
Water refill points	★★★★☆	££££	Visible and relevant infrastructure to tackle the need for single-use plastic water bottles. High quality stations were purchased with rapid fill rates, sensor triggers and refill counters – these features improved usage rates, limited water spillage and minimised COVID contamination.	<i>“Sustainable long-term change to the school.”</i>
Plastic Pioneers posters <a href="https://bit.ly/39bJir2">bit.ly/39bJir2</a>	★★★	£	Eye catching and professional designs with school focus on reducing single-use plastic. Greater impact was achieved with prominent positioning in the school.	<i>“Children keen to make pledges after seeing the poster.”</i>
Plastic Pioneers badges	★★★	£	Gave participating pupils and staff a clear identity within the school and made Plastic Pioneers stand out amongst standard school clubs.	<i>“Made pupils very excited about getting involved.”</i>

Key: £ = No cost | £ < £50 | ££ = £51-200 | £££ = £201-£500 | ££££ > £501

Note: Based on questionnaire responses from 10 out of 12 participating schools for interventions implemented by February 2020

# Interventions - Infrastructure

Intervention	Impact	Cost	Notes	Participant thoughts
Reusable event kit	★ ★ ★ ★ ★	££££	Saved money for the school and PTA while reducing single-use plastic. Critical to agree storage and washing up responsibilities.	<i>“Now a regimented part of all meetings, teacher training and whole school events!”</i>
Litter pick kit	★ ★ ★ ★ ☆	££	Useful infrastructure to have to make a difference in the school and its local community.	<i>“Young children love litter picks!”</i>
Reusable water cups	★ ★ ★	££	Saved money and single-use plastic for the school. Critical to agree storage and washing up responsibilities.	<i>“The school has saved money from not buying in [disposable] plastic cups.”</i>
Plastic Pioneers branded mugs	★ ★ ★ ★ ☆	££	Saved money and single-use plastic for the school. Enabled the staff to clearly set an example to pupils and parents. Critical to agree storage and washing up responsibilities. Schools could design own branded mugs, purchase from a catering supplier or request mug donations.	<i>“A staff incentive and [enabled] adults [to set an example for] student participation in reducing plastics.”</i>
Plastic Pioneers reward prizes	★ ★ ★ ★ ☆	££	This was a highly effective motivator for good plastic behaviour. Prizes should be promoted in advance and formally presented to the prize winners.	<i>“These were great for rewarding effort.”</i>
Plastic Pioneers certificates <a href="https://bit.ly/3npj3Te">bit.ly/3npj3Te</a>	★ ★ ★ ★ ☆	£	Immensely effective in schools with strong culture of celebration certificates, limited impact without this culture.	<i>“The children are really motivated by being awarded certificates.”</i>

Key: £ = No cost | £ < £50 | ££ = £51-200 | £££ = £201-£500 | ££££ > £501

Note: Based on questionnaire responses from 10 out of 12 participating schools for interventions implemented by February 2020

# Interventions - Infrastructure

Intervention	Impact	Cost	Notes	Participant thoughts
Plastic-free event prizes	★ ★ ★	££	Both parent and pupil plastic awareness must be strong to overcome perceived value of cheap plastic prizes. When embraced, this is a huge opportunity to set an example and remove unwanted single-use plastic in primary schools.	<i>“We now want to expand this to all events.”</i>
Recycling bins	★ ★ ★	££££	Appropriate recycling waste contracts must be in place, with effective resourcing for sorting. Signage and location within the school are critical. Education is essential for pupils and staff to learn what can/cannot be recycled and that reducing single-use plastic should be prioritised.	<i>“Pupils actively asking where the recycling bins are is a significant change in their mindset.”</i>
Plastic-free lunch support kits	★ ★ ★ ★	££££	Pupil and parent workshops taught practical skills needed to prepare unpackaged (and healthy) lunches.	<i>“Providing practical education and tips to reduce single-use plastic for lunchboxes really makes a difference.”</i>
Reusable coffee cups	Participating school unavailable for feedback	££££	Saved money and single-use plastic for the school. Enabled the staff and sixth formers to clearly set an example to the school community. Critical to agree storage and washing up responsibilities.	<b>Participating school unavailable for feedback</b>

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# Interventions - Education

Intervention	Impact	Cost	Notes	Participant thoughts
<b>Plastic art workshops</b> <ul style="list-style-type: none"> <li>■ <a href="http://www.wrenmiller.art">www.wrenmiller.art</a></li> <li>■ <a href="http://www.sarahturner.co.uk">www.sarahturner.co.uk</a></li> <li>■ <a href="http://alisonmsmith.weebly.com">alisonmsmith.weebly.com</a></li> </ul>	★ ★ ★	£££	Eco-artists (Wren Miller, Sarah Turner & Alison Smith) hosted school-wide workshops to tangibly engage pupils with single-use plastic whilst learning about practical ideas to reduce it. The final products were then displayed within the school to draw attention to the challenge of single-use plastic.	<i>“The lessons they had where they made things with recycled bottles had a huge impact. I had lots of students showing these off to me and talking about plastic recycling.”</i>
<b>Everyday Plastic workshops</b> <a href="http://www.everydayplastic.org">www.everydayplastic.org</a>	★ ★ ★ ★	£££	Dan Webb hosted school-wide workshops and assemblies to explain the scale of the single-use plastic problem and everyday solutions to it. The shocking statistics in these workshops often significantly boosted school engagement.	<i>“This was great, it was very well delivered.”</i> <i>“Children shocked at the amounts [of plastic].”</i>
<b>Environmental leadership workshops</b> <a href="http://thevisionaries.org.uk">thevisionaries.org.uk</a>	★ ★ ★ ★	£££	The Visionaries hosted workshops to educate and empower pupils about their role to reduce single-use plastic and how to inspire others.	<i>“A great opportunity for the eco-committee.”</i>
<b>Guest hosted assembly</b>	★ ★ ★	£	Inviting relevant external guests to inspire single-use plastic action with real-world reduction examples really enhanced pupil understanding of application beyond the school community.	<i>“Was great to have inspiration at a whole school level by someone their age [Amy Meek - Kids Against Plastic (<a href="https://bit.ly/34qycwp">bit.ly/34qycwp</a>)].”</i>
<b>Plastic Pioneers recommended education resources</b> <a href="https://bit.ly/3s6N65C">bit.ly/3s6N65C</a>	★ ★ ★	£	The efficacy of this document relied on strong staff leadership to encourage staff-wide engagement. It provided ideas to facilitate cross-curricular reinforcement of single-use plastic awareness.	<i>“This inspired our technology competition.”</i>

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# Interventions - Education

Intervention	Impact	Cost	Notes	Participant thoughts
Pupil hosted assemblies	★ ★ ★	£	Pupils presenting plastic education to their peers was incredibly effective, especially when linked to a specific competition or challenge launch.	<i>“Students got a great sense of the work PP do and were educated through student eyes on ways to reduce plastic.”</i>
Litterpick event	★ ★ ★ ★	£	Pupils, staff and parents all enjoyed litterpick events at both primary and secondary levels.	<i>“Super bringing together of kids and staff in the community. Kids really enjoyed. Will do again.”</i>
Hubbub beeswax wrap vlog <a href="https://bit.ly/3osyn2G">bit.ly/3osyn2G</a>	★ ★ ★	£	Easy art project to support plastic reduction policies and a product that could be sold to the community to raise funds for the school or other plastic reduction initiatives.	<i>“[The best thing about Plastic Pioneers] was making the beeswax wraps.”</i>
Hubbub reduce lunchbox plastic vlog <a href="https://bit.ly/3s5uBOU">bit.ly/3s5uBOU</a>	★ ★ ★ ★	£	Educational film for pupils and parents with tips to reduce lunchbox plastic. Successful implementation saved c.1kg/week of plastic waste per 200 pupils, also reducing litter problems. Exceptional engagement in schools promoting a plastic-free Friday policy.	<i>“This has now been shared school-wide and Solihull council will be using it.”</i>
Plastic Pioneers display board	★ ★ ★	£	Visually appealing and accessible celebration of progress and source of education. Location, size and up-to-date content was key.	<i>“The eco-committee now has a bigger presence in school with a bigger display board. Made a lot of impact.”</i>

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# Interventions - Communication

Intervention	Impact	Cost	Notes	Participant thoughts
Hubbub weekly email	★ ★ ★	£	Community email to share school achievements, tips and programme wide opportunities in which to participate.	<i>“Allowed me to get the message out to other members of staff who were interested.”</i>
External support	★ ★ ★ ★	££££	Hubbub and local partners - Zero Waste Leeds ( <a href="https://bit.ly/2M43K5S">bit.ly/2M43K5S</a> ) and Keep Wales Tidy ( <a href="https://bit.ly/3t5Dp7N">bit.ly/3t5Dp7N</a> ) provided external advice, support and momentum to ensure busy and stretched teachers felt motivated to implement the programme.	<i>“Hubbub’s visit to school was really engaging and interesting, it encouraged staff to get involved.”</i>  <i>“Hubbub were brilliant at communicating with us, giving us resources and generally guiding us.”</i>
Plastic Pioneers promotions	★ ★	£	Discounts made available to the Plastic Pioneer community from supporting businesses and charities. Very little uptake. Explore how to make more relevant/promote to purchasing managers.	<i>“Promotions mentioned in the [school] newsletter but no way of knowing whether any parents used them.”</i>
Writing to MPs and companies	★ ★ ★ ★	£	Pupils were encouraged to use their voice to engage external decision makers able to reduce plastic at source.	<i>“It was a good way of getting the PP group to think about their wider impact.”</i>
Pupil discussions with the canteen	★ ★ ★ ★	£	Pupil engagement with canteen staff was highly effective at reducing canteen single-use plastic. Canteens can be a key source of single-use plastic in schools. With pupil persuasion, canteens switched product lines and changed working practices without reducing profitability.	<i>“Students leading the key messages and meetings with key staff effected change at the whole school level.”</i>  <i>“The canteen has made significant improvements in cutting back on single-use plastic.”</i>

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# Interventions - Communication

Intervention	Impact	Cost	Notes	Participant thoughts
Hubbub Halloween ideas	★ ★ ★	£	Articles and videos to promote plastic-free Halloween tips.	<i>“The Plastic Pioneers students loved these and communicated this with their own classrooms.”</i>
Hubbub Christmas ideas	★ ★ ★	£	Plastic-free gift ideas, shopping discounts and festive celebration tips.	<i>“Sent links out in newsletters to parents. Also initiated conversations around existing Christmas stock that was not in keeping with Plastic Pioneers.”</i>
Press coverage	★ ★ ★ ★	£	Local and education publications actively celebrated Plastic Pioneer participation promoting status of pupils and schools involved within the local community.	<i>“Helped to raise the status of the project.”</i>  <i>“It was great for the eco-club kids to be made to feel a little bit special by having their picture in the paper.”</i>  <i>“Plastic Pioneers participation remains a key talking point for potential-parent tours.”</i>
Social media coverage	★ ★ ★ ★	£	Schools’ use of their social media channels to promote Plastic Pioneers extended the education to the wider school community. Social media based competitions proved an excellent tool to engage secondary school pupils.	<i>“Twitter got loads of attention!”</i>  <i>“We shared a lot on the school Facebook page.”</i>  <i>“The best bit about PP was using TikTok to spread the message to save the planet.”</i>  <i>“Most of our parents are on social media so this is a great channel to interact with the parent body.”</i>

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# Interventions - Communication

Intervention	Impact	Cost	Notes	Participant thoughts
Plastic Pioneers staff letters	★ ★ ★	£	Programme overview letters facilitated clear communication to all staff and encouraged cross-curricular engagement.	<i>“Resulted in a ‘repurpose’ project led by Tech Faculty with really high levels of student participation.”</i>
Plastic Pioneers parent letters	★ ★ ★	£	Programme overview letters informed and engaged the parent/carer community.	<i>“Helped raise awareness amongst parents.”</i>
Plastic Pioneers reward points	★ ★ ★ ★	£	Schools with existing strong reward schemes incentivised good plastic behaviour. Cross-curricular staff support was essential.	<i>“It was important to get staff into the routine of giving plastic reward points. In the hallways I would give a reward point to all pupils carrying their [reusable] water bottles.”</i>
Plastic Pioneers updates in school communications	★ ★ ★	£	Schools were encouraged to share articles about Plastic Pioneers’ achievements and challenges in school newsletters/communications. Examples were shared across Plastic Pioneers schools.	<i>“Helped raise the status of the project and raise awareness.”</i>

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**“We don’t need a handful  
of people doing sustainable  
living perfectly.  
We need millions of people  
doing it imperfectly”**

***- Adapted from Anne Marie Bonneau***



# Thank you

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