



Carlton Keighley Orchard Case Study

Background

Carlton Keighley is committed to meeting the needs of young people with a range of special educational needs. The school does this through a variety of different support systems led by specially trained teachers and support staff. Since COVID, the school has seen a rise in SEMH and behavioural issues, resulting in more being required of SEND staff as the pupils coming in have higher needs. In response to this, more therapeutic sessions such as gardening and practical work are required to help equip pupils with the life skills that they may have missed out on during the COVID years.

Aims

- To engage SEND pupils in a practical, hands-on project that they could take ownership of
- To enable SEND pupils to experience the therapeutic benefits of spending time outdoors and working with plants
- To build pupils' confidence and independence when using tools and carrying out practical tasks
- To enhance and diversify the school's outdoor space to make it a more engaging learning environment for current and future cohorts of pupils

The Project

Fruit Works Co-operative, in partnership with Living Well Schools and Trees for Cities, worked with a group of KS3 pupils with mixed abilities and different learning needs to establish an orchard on the school grounds in the 2024-25 academic year. The project was carried out over six visits, which are described below.

October 2024: Apple pressing

Fruit Works Co-operative supplied apples and pressing equipment and delivered a 1 hour juicing session with the group. The aim of this activity was to demonstrate a way to enjoy home-grown apples and to build the pupils' excitement about growing their own. The pupils washed the apples, crushed them in a scratter and then scooped them into a traditional manual press to extract the juice. Once they had learned the process, the pupils eagerly organised themselves into an effective production line, resulting in several jugs full of delicious golden apple juice. Their teacher, Esta Bernardini, commented on their focus and good behaviour throughout the session.



November 2024: Orchard planning

Our second session was mostly indoors and covered the What, Why and How of fruit growing. We discussed what types of fruit can be grown in the UK, the many good reasons to grow your own fruit, and what fruit trees need in order to thrive. We finished by going outside to the proposed planting site, and spreading out to create a '3D map' of where the trees would be planted, keeping access to light and space in mind. We agreed that the orchard would comfortably accommodate 10 fruit trees spaced 5m apart, and would include a mix of apples, pears and plums.



December 2024: Orchard planting

In December we planted the orchard we had mapped out during the previous session. We had a short window of 1 hour to plant 10 fruit trees and 10 currant bushes, and the group rose to the challenge. Pupils donned gloves and grabbed spades and learned correct digging and planting techniques, resulting in a neatly planted orchard springing up in what had previously been an empty corner of the school field.

Carlton Keighley School Orchard Planted December 2024



January 2025: Watering, mulching and staking

The pupils pushed wheelbarrows full of woodchip mulch, cardboard, wooden stakes and watering cans up to the planting site to add the finishing touches to their orchard. They used a digging bar and post rammer to drive stakes into the ground to provide support for the trees. Each tree and bush was watered generously before applying a thick layer of cardboard and woodchip mulch at its base. The pupils learned what mulch is and how it benefits fruiting plants. Like the tree planting, this proved to be another successful outdoor session filled with hands-on tasks and tangible, satisfying outcomes that the pupils could feel proud of.



February 2025: Grafting

The group learned the fascinating process of grafting, an effective method of fruit tree propagation. After practicing the technique with grafting pliers on bits of scrap twigs, each pupil grafted, potted and labelled their own apple tree.

June 2025: Tree maintenance & health check

The project was wrapped up with a summer maintenance visit to check on the health of the orchard. The trees were watered, re-mulched and pruned where necessary, and we reminded pupils of the importance of regular watering.

Results, Feedback and Next Steps

We consider this project to have been a success, based on its environmental and social outcomes.

The maintenance visit revealed that the trees had been well looked after by the group and were growing healthily. In the coming years, the trees and bushes planted will grow to provide visual interest, learning opportunities and eventually tasty, nutritious fruit for pupils. From a biodiversity perspective, the orchard has created a habitat that supports local wildlife including pollinators, birds, and beneficial insects.

The pupils responded extremely well to the sessions overall. It was interesting to note that the Orchard Planning session in November, which was held mostly indoors, was the least popular among the group. In the classroom, pupils were more distracted and prone to misbehaving, whereas outdoors they remained interested, lively and attentive. The pupils grew in confidence and competence while using a variety of tools and worked effectively both individually and with others.

Teacher Esta Bernardini gave positive feedback on the sessions:

"We loved having you guys and it has been a game changer to our school site and how we use what we have!"

The amount of information and technical vocab used in the sessions was perfect for our cohort and I felt methods such as the planting and grafting were taught really well. The amount and quality of resources provided, such as the trees and cuttings and root stocks, were amazing.

The students particularly loved the juicing session and the grafting session as they took part in producing something themselves.

A nice take away from the orchard has been that a wider cohort of students who weren't initially involved can help water the trees which has created a bigger gardening community at school."

The outcomes of our project at Carlton Keighley suggest that outdoor, fruit-tree related activities contribute positively to pupils' well-being and social development. We hope to be able to offer this project to more schools across the Bradford area, particularly to schools facing economic deprivation and challenging behaviour among pupils, so that the numerous benefits of fruit tree growing may reach further.