What are the benefits of growing food in schools?

A briefing for class teachers

Teachers use food growing successfully across the country to enrich and support curriculum delivery. It can have a powerful positive impact on pupil health and wellbeing, behaviour and attainment. Schools tell us that it also brings their whole school community together.
Enhancing curriculum delivery

- Teachers report that food growing complements and enriches the whole curriculum. This can lead to improved academic outcomes across a range of subjects, with strongest evidence for science learning outcomes. Observational skills fostered through food growing activities are specifically identified as being helpful for science and broader learning.

- A number of studies report that the experiential nature of food growing is particularly valuable for pupils in creating meaning and added relevance to their classroom learning. Furthermore, the use of food growing as a hands-on teaching approach has been shown to be more effective than other non-experiential strategies to improving nutritional knowledge and food behaviours.

- Since the introduction of the new national curriculum in 2014 there is an increased focus on food growing. The science programme of study includes at Key Stage 1 a naming of basic plants, through to growing plants and requirements for life in KS3 and finally understanding the life cycle of a plant by KS4.

- Practical cookery and food education is now compulsory in the new national curriculum for pupils up to the end of Key Stage 3. Schools must ensure that pupils learn about the origins of food, including how it is grown, seasonality and the characteristics of a variety of ingredients. There is also strong support from parents for food education in schools: over 90% of parents think it is important that schools teach children where their food comes from.

- Food growing has proved effective in promoting pupils’ attachment and engagement with their school and increased pupil motivation is also reported. This has positive impacts for pupils and the whole school community.

- Pupils have to work together to get the most out of their garden, which develops their teamwork, cooperation and communication skills.

Eating healthily now and in the future

- Over 1 in 5 reception children and 1 in 3 children in year 6 in England are overweight or obese. Diet-related disease is an increasing burden to the NHS and the economy.

- As a response to grave concerns about the health and wellbeing of children in 2016 the government launched a national plan for tackling childhood obesity. This plan announced the creation of a healthy rating scheme for primary schools, which will help schools demonstrate that they are taking evidence based actions to improve their pupils’ health. The strategy also places an emphasis on implementation of the 2014 School Food Plan, which set out a number of measures to improve food and food culture in schools, including the introduction of universal infant free school meals. In addition the plan sets out measures to increase physical activity in schools.
Dietary attitudes and behaviours in childhood shape what children go on to eat in adulthood. There is good evidence that food growing in schools improves pupils’ dietary attitudes and behaviours, specifically it leads to:

- Increased pupil recognition of fruit and vegetables and an increased willingness to try new fruit and vegetables. Research shows that between 5 and 10 exposures to new foods are required to improve children's acceptance and intake of these foods - food growing is an engaging way of doing this;

- Increased variety and quantity of fruit and vegetables consumed by pupils. Some studies have also shown improvements in BMI and waist circumference measurements;

- Increased take-up of school meals, especially when food growing is integrated as part of a whole school approach to food. Pupils are excited to see food they have grown incorporated into their school lunches and are generally more engaged and aware about the importance of eating a balanced healthy diet. Increased take-up in school meals means more full tummies and satisfied pupils who are ready to learn, even factoring in the 'post-lunch slump.' One study showed that children in primary school were over three times more likely to concentrate and be alert in the classroom when positive changes were made to their food and dining room;

- Increased self-efficacy – pupils are better able to undertake growing and cooking activities and are so able to adopt health-supporting behaviours within and beyond their school.

- Food growing is a great way of getting children to be physically active. In addition to the physical health benefits, higher levels of physical activity are also associated with improved classroom behaviour and attainment.

- Of school meals, positive effects on the health of pupils over the long term through to higher educational attainment overall, a greener local environment and a boost to local economy.

Supporting mental health and wellbeing

- Food growing has been shown to boost the mental health and wellbeing of pupils. Many studies have found that pupils have increased confidence and self-esteem as a result of growing food in school.

- Pupils get a sense of achievement, satisfaction and pride from growing, tending and harvesting their crops, which contributes to a wider sense of well-being.

- A number of studies have made specific observations about the particularly beneficial impact for pupils with ADHD depression and other mental health conditions and children with behavioural and emotional difficulties. Gardens can offer a place of peace or refuge that supports pupil well-being. Teachers tell us that positive impacts experienced in the garden follow through into the classroom.

Caring for the environment

- Food growing creates a greater sense of environmental awareness amongst pupils on a wide range of issues, including water conservation, composting, global environmental issues, sustainability and recycling, it also reinforces a connection with nature. 78.9% of respondents taking part in an evaluation of the Food Growing Schools: London initiative reported that pupils had become more aware of the wider benefits (social and environmental) of food growing. There is a correlation between pro-environmental behaviours in childhood and adulthood.

- Research shows that organic crops and crop-based foods – including fruit, vegetables and cereals – are up to 60% higher in a number of key antioxidants than their non-organic counterparts. Including organic, school-grown produce in different classes and weaving it through different subject areas promotes this approach.
Growing job skills

- Food growing helps bolster the employability of school leavers through enterprise and horticultural knowledge building. Horticulture is an expanding part of the careers market, with over 300,000 people employed in the sector that contributes £9 billion to the UK economy. Pupils can gain appropriate skills in this area by engaging in a school garden or vegetable patch.

2. Ibid
24. Ibid