Yoxall St Peter's CofE Primary

Curriculum

How we teach: Design and Technology

Basic principles

1. Design and Technology is an inspiring, rigorous and practical subject.
2. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and other's needs, wants and values.
3. They will acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.
4. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.
5. Through evaluation of past and present design and technology, children develop a critical understanding of its impact on daily life and the wider world.
6. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Curriculum intent model

1. To allow children to use creativity and imagination so they make original pieces.

2. To encourage children to design and make products so the products they make work and are useful – so they have a purpose.

3. To give the children a wide range of designing and making skills so they can make high quality finished products with a range of finishing techniques for products so their work is of high quality.

4. To teach the children how to evaluate products so they can improve their own creation to make them better and can understand how others have made their products work.

5. To understand nutrition and to learn to cook so children know how to eat healthily as they grow older.

6. To broaden knowledge of the work of renowned designers from the past and present (eg. Leonardo da Vinci, James Watt, Karim Rashid, James Dyson, Gwynne Shotwell – Space X).

7. To enable children to recognise when they have used subject knowledge from other areas of the curriculum to support their DT work. E.g. Use accurate measuring skills to make templates when sewing. To enable children to know and understand when they are using skills from other subjects and that they are working cross-curricular.

8. To give children opportunities to take risks and be innovative when designing and making.

Implementation

9. To give children the opportunity to use and apply the skills and techniques that they have been learning more creatively within each unit.

10. Allow the children to try out their ideas without prejudicing their choice before they've had a go and been allowed to succeed or fail. Give children the opportunities to take risk and make their own choices about their design.

11. Teach children how to draw in 3 dimensions.

12. Learn how to cut and join a range of materials using a variety of hand tools and fixing techniques.

13. Allow children time to adapt and improve their work after evaluation stage.

14. Use a clear and progressive overview to ensure children are given opportunities to develop the skills of designing and making.

15. Show the children how to examine a product and decide if the design criteria for it has been met.

16. Teachers to use the Projects on a Page planners from the Design and Technology Association to guide/support when planning innovative DT projects for their class. DT planning will show progression of skills across mixed age classes and skills will be practised to ensure pupils can complete their projects successfully. Eg. Sewing skills - stitches explicitly modelled and taught if required.

17. Disassemble products to find out how they work/ are made. E.g. disassemble a felt case to see how it has been made/stitched.

18. Learn about foods which can cause health issues in later life and the alternative healthier choices available.

19. Teach children recipes for savoury, not sweet dishes.

20. Teach children to prepare food ready for cooking/eating in a safe and hygienic way.

21. Look at a broad range of designers and engineers from different place and times.

22. Meet/invite practicing engineers to school, engage parents of children from JCB or other nearby companies to visit and talk about their work.

23. Plan opportunities for children to recognise where they have used a skill set acquired from a different subject.

24. Learning Pit opportunities when designing and making to allow children to take risks and be innovative.

25. Plan situations where the children do not have the obvious tool/resource available and must innovate.

26. To create a DT link between Yoxall and JTHS in the JTMAT to further support teaching and learning of DT.

Impact

27. Free thinking children who look outside of the box for solutions to design problems which ultimately lead to better/more innovative products being made.

28. More resilient children who accept failure/mistakes as a challenge, not a barrier, and use these to make their work better.

29. Skilled designers who can quickly show/capture their thoughts in 3D sketches.

30. Handy children who can carry out simple home DIY projects using basic hand tools.

31. Reflective children who can act upon their own evaluations.

32. Children have pride in their work/projects and they are of high quality.

33. Children will be more competent at discovering flaws/successes in their work and that of others – their own work will be better as a consequence.

34. Children will be motivated to become designers/engineers as a career path.

35. Children's DT skills will improve as they are given time and opportunity to practise. Eg. Sewing, drawing, measuring accurately.

36. A child who can make healthy choices about the things they themselves prepare to eat as they grow older and choices around foods high in bad fats and sugars.

37. Children will use ideas of, and lessons learned by, famous designers from history and present as inspiration.

38. Children will be inspired/motivated to become engineers in the future.

39. Children will understand how these designers have impacted their own lives. E.g. Mars Rover and the space project.

40. Children will be able to say when they have used knowledge from another subject area to support their work. E.g. Recognising 3D shapes within a design for a wheeled toy.

41. Children will be capable and enterprising.

42. Children will have a deeper understanding of what they have learnt and how to solve real world problems.

43. Children will be able to transfer the DT skills they have acquired and learnt across KS1 and KS2 after they leave us to KS3 in their new school. To use the link created between Yoxall and JTHS to ensure a smooth transition of DT skills across Keystage 2 to Keystage 3.