6 ways to get D&T right at primary

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1. “Use creativity and imagination…”

Here lies the basis of the subject – it should be an opportunity for children to demonstrate creativity and imagination. We must ask ourselves: how can we encourage creativity and imagination in our DT curriculum? By planning for all children to reach the end of a half term all having made an identical product, we do not plan for children to exercise creativity and imagination. Some of the following points should help us as we seek to provide such opportunities.

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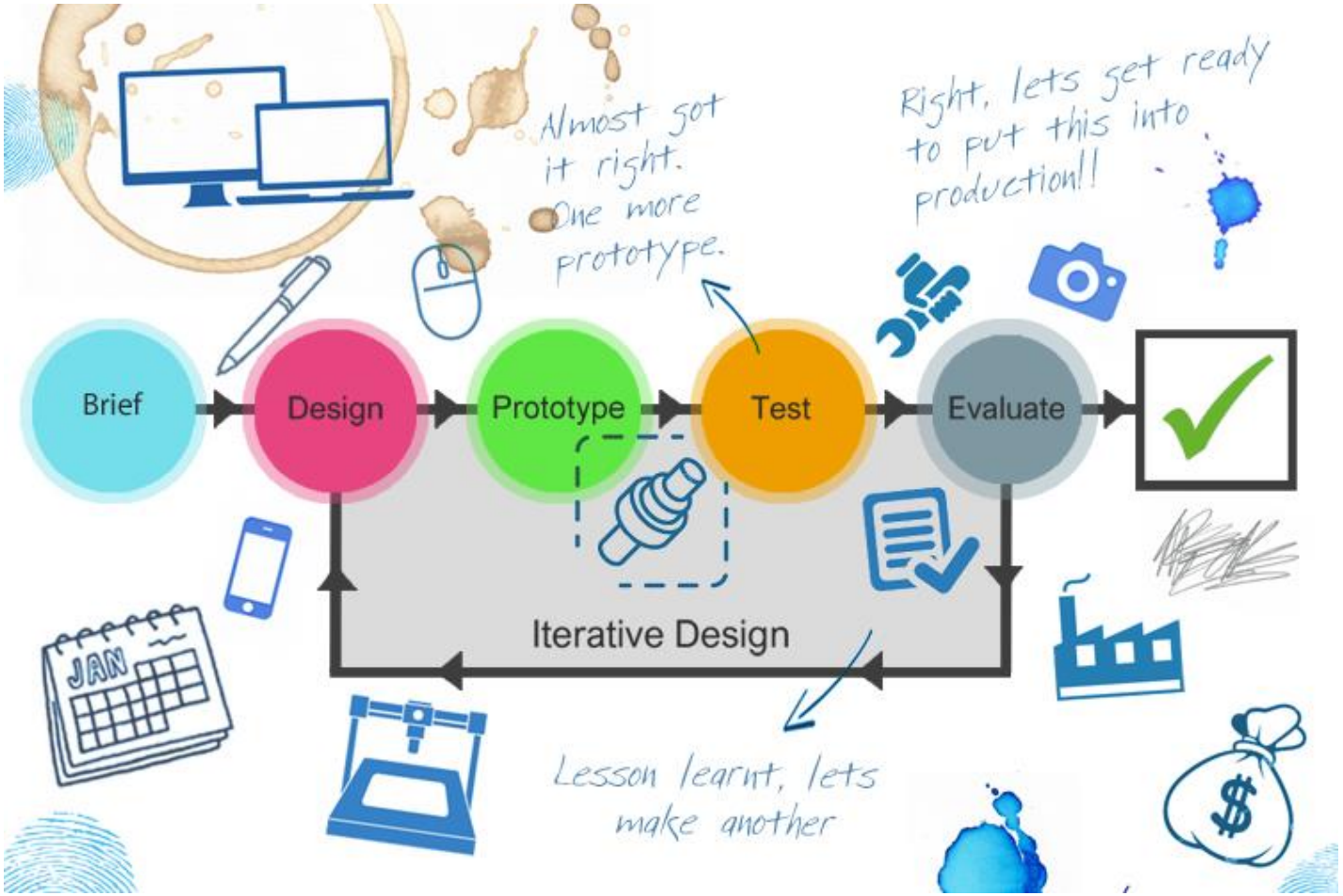
2. “…to design and make products…”

Although the curriculum mentions the iterative design process (a cyclic process of prototyping, testing, analysing, and refining a product), it does not specify that the whole process should be followed at all times. We can consider teaching sequences where children design something without making it, or where they make something without having designed it first. The latter is a great way of introducing new skills to children; for example, following a recipe in a food technology session. Of course, other times we will want children to engage in the process of both designing and making something.


Almost got it right. One more prototype.
Right, lets get ready to put this into production!!
Brief
Design
Prototype
Test
Evaluate
Iterative Design
JAN
Lesson learnt, lets make another

3. “…that solve real and relevant problems within a variety of contexts…”

Children respond well to having a purpose to their work. When teaching writing, for example, we often decide on who will read the final piece of work and what we want the piece to do: inform, entertain and so on.

We can do the same in D&T, giving children the opportunity to use creativity and imagination. If a unit of work is based around a problem that must be solved, instead of around an outcome predecided by the teacher, the potential variety of outcomes is limited only by the number of children in the class.

A problem should be the driving force behind any D&T unit, not the idea that all children should be able to make a picture frame or sew a slipper.

The curriculum document outlines potential contexts (home, school, gardens, playgrounds, local community, industry, wider environment, leisure, culture, enterprise). All we must do is ask ourselves: what problems are real and relevant to children that are in my class?

It is also worth considering how real the "real" is – is it a fake, contrived problem, or one that really exists and matters to the children?

Invent a convenient way for someone using crutches or a wheelchair to carry small personal items.

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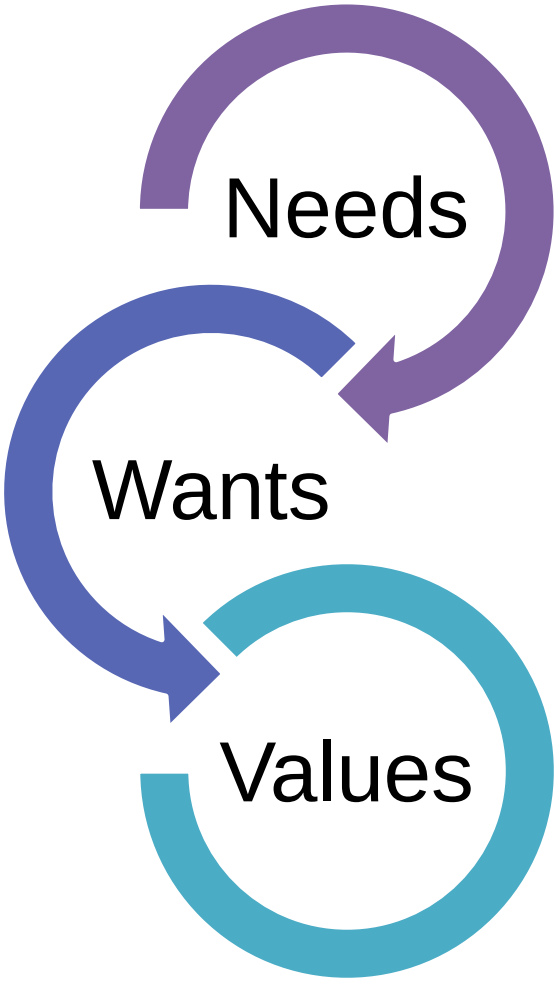
4. “…considering their own and others’ needs, wants and values”

This is an extension of the previous point. If children are presented with a problem to solve, it can be made personal by asking them how they think it should be solved.

By allowing and encouraging them to think about how the problem could be solved to the benefit of themselves, and other people whom they know, there is the potential for greater engagement and motivation.

Too often, D&T projects are focused on teaching skills (such as are outlined in the "making" part of the curriculum objectives) and then enforcing their application in a particular way: making a light-up game, for example.

If we want children to apply their knowledge of primary-level electronics creatively and imaginatively, it would be better to pose a problem that children can relate to: "Your little brother keeps trying to take your things. Create an electronic warning system to alert you to when he is nearby."


Needs
Wants
Values

5. “…develop the creative, technical and practical expertise needed to perform everyday tasks confidently…”

This might be a surprise for anyone who hasn’t really read the curriculum in detail. What on earth are these everyday tasks that are referred to here?

There isn’t much information to go on so we have to interpret it in our own way. Perhaps it is changing a light bulb? Replacing the fuse in a plug socket? Hanging a picture? Putting up shelves? Mending a hole in an item of clothing? Upgrading the memory in a laptop? Using a food processor to make a healthy smoothie?

There are so many ways of incorporating real-life skills into our D&T units because of this aim. If we keep in mind the words "real" and "relevant", then there are plenty of interesting and useful things that we can teach children to do.

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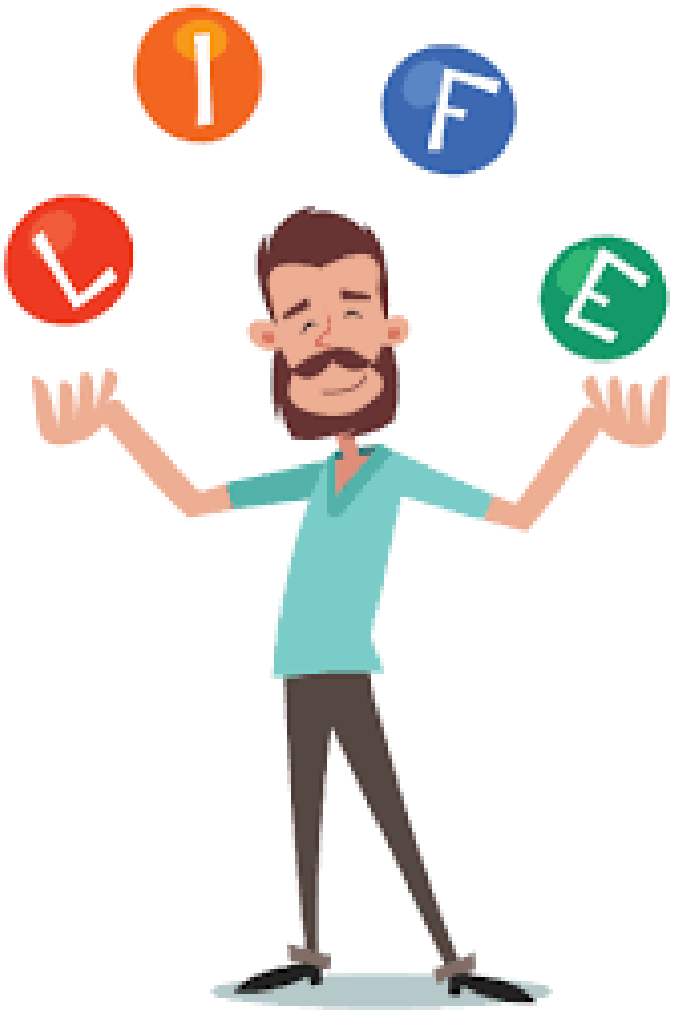

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6. “…critique, evaluate and test their ideas and products and the work of others”

I’ve mentioned how we teach writing already, and here we have another similarity. If we follow the writing process of planning, drafting, sharing, evaluating, revising, editing and publishing, then children will already be used to following steps that lead to the improvement of a product.

Imagine some key stage 2 children are trying to solve a problem related to creating a new piece of play equipment using their knowledge of mechanical systems. Once they have designed and made a prototype, they should "edit" and "revise" what they have done – this is the critique, evaluation and testing that the D&T curriculum speaks of.

But this should also be done with ideas and products that aren’t their own – there isn’t always the need to have designed and made something first. Children could test how well an existing product, a tablet computer, for example, fits a particular brief – is it easy to use for someone with limited sight?

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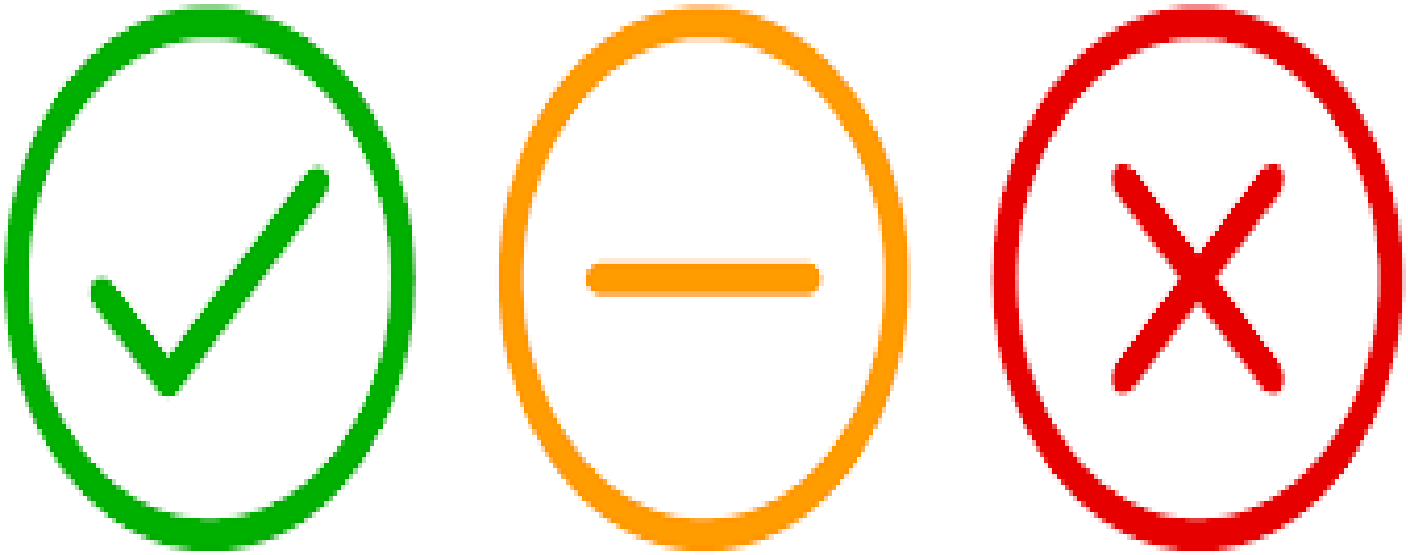

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