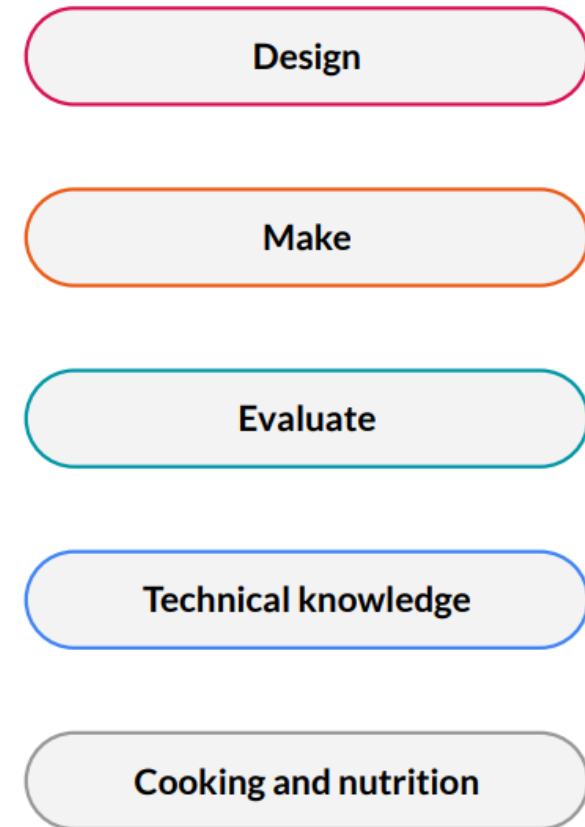


How does Kapow Primary's scheme of work align with the national curriculum?

Our scheme of work fulfils the statutory requirements outlined in the **national curriculum (2014)**. The national curriculum Programme of study for Design and technology aims to ensure that all pupils:

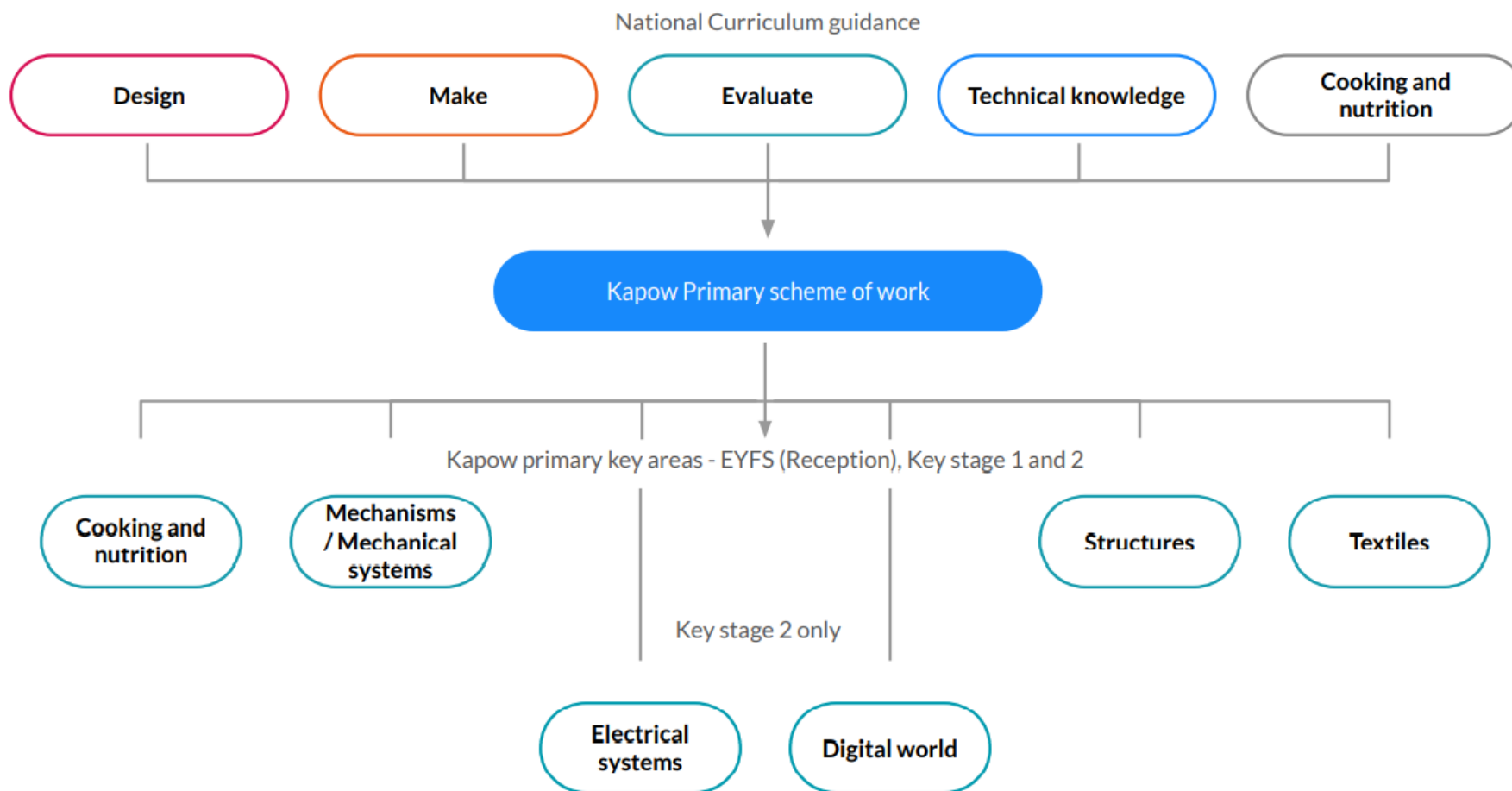
- ★ develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- ★ build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- ★ critique, evaluate and test their ideas and products and the work of others
- ★ understand and apply the principles of nutrition and learn how to cook

We have identified five key strands which run throughout our scheme of work:



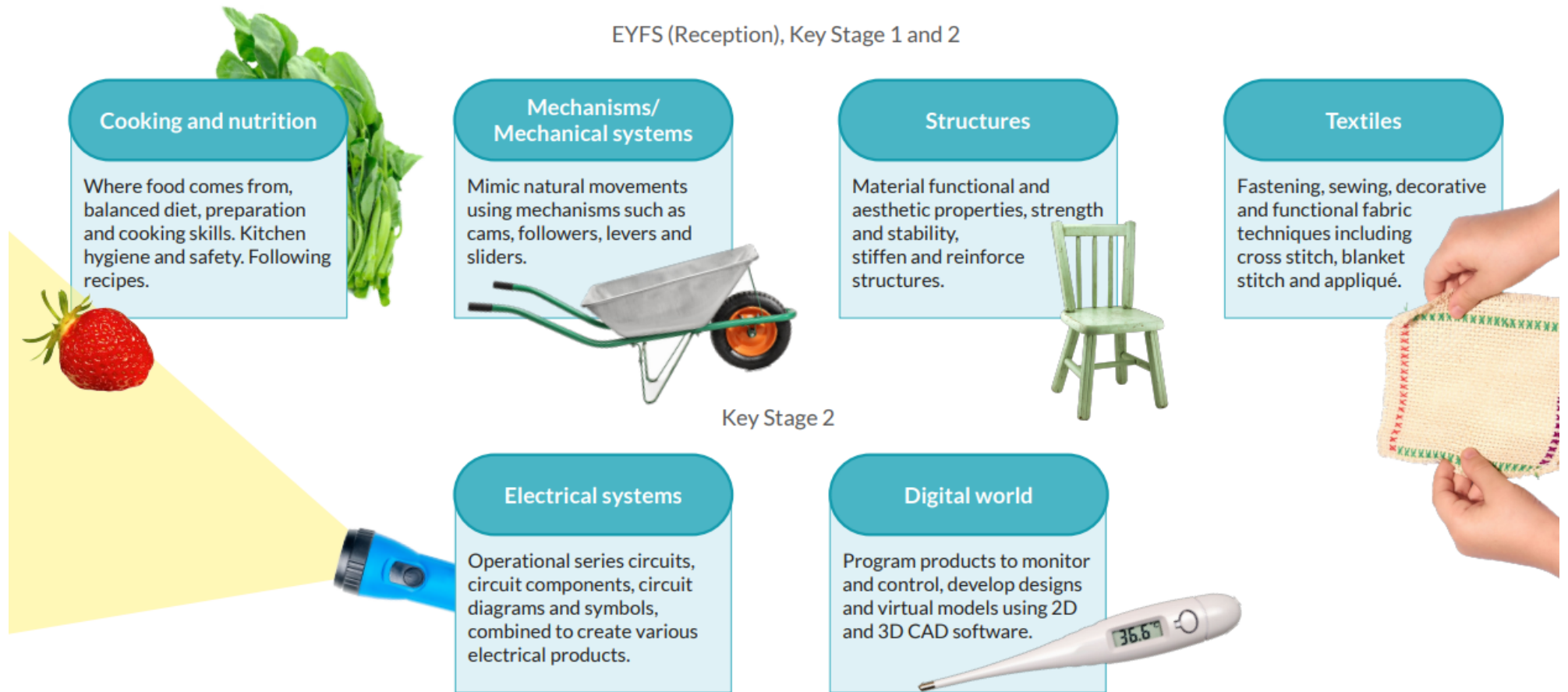
Our [National curriculum mapping document](#) shows which of our units cover each of the national curriculum attainment targets as well as each of the five key areas. Each lesson plan references the relevant national curriculum objectives, along with cross-curricular links to any other subjects. The EYFS (Reception) units are mapped to Development Matters and the Early Learning Goals.

How is the Design and technology scheme of work organised?



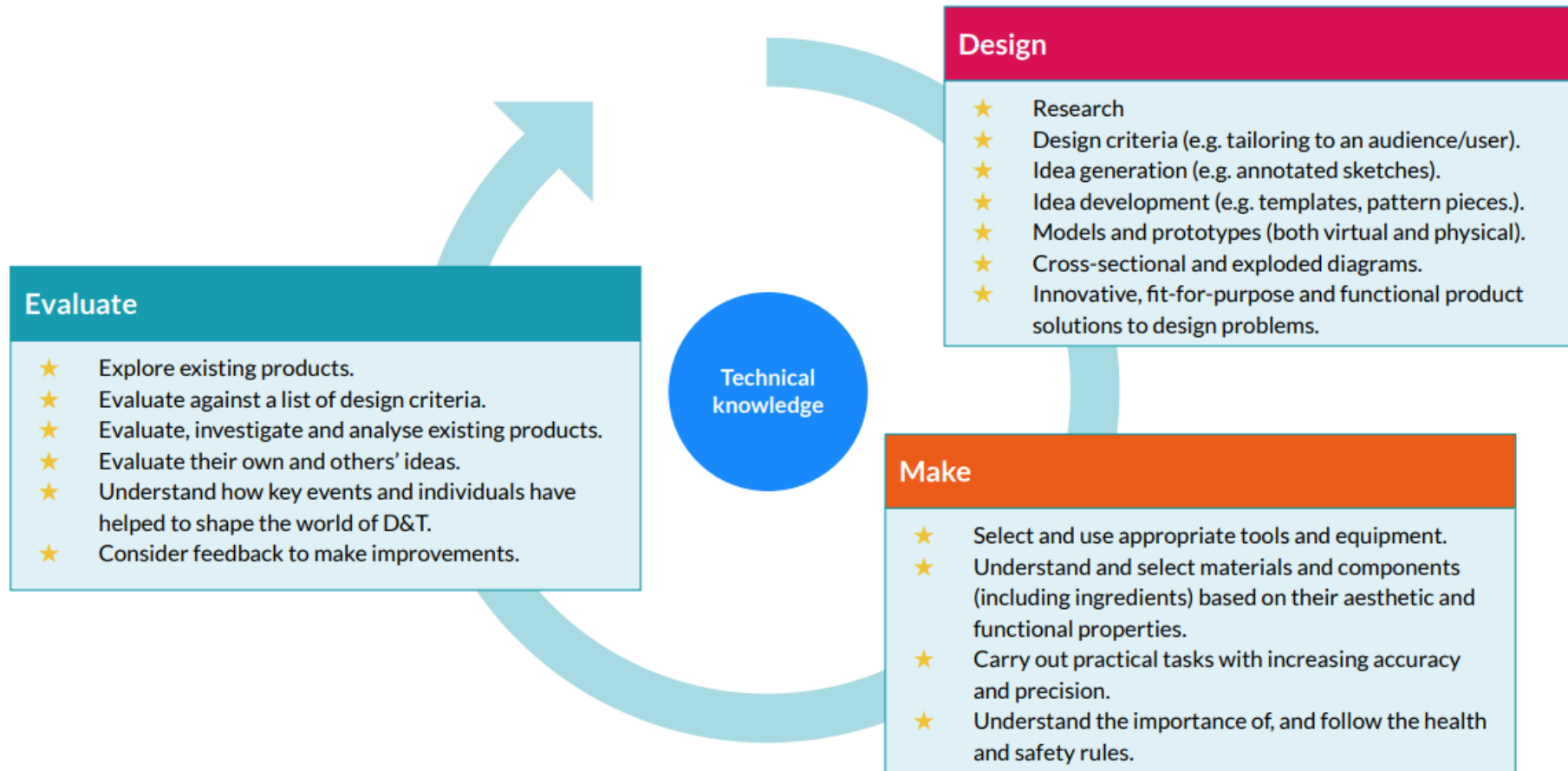
Key areas

The six key areas are revisited each year, with Electrical systems and Digital world beginning in KS2. The areas enable all subject leads, specialists or non-specialists, to understand and make it easy for teachers to see prior and future learning for your pupils. You can see, at a glance, how the unit you are teaching fits into their wider learning journey.



The design process

The Design and technology national curriculum outlines the three main stages of the design process: design, make and evaluate. Each Kapow Primary unit follows these stages, to form a full project. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical and technical understanding, required for each strand.



Cooking and nutrition* has a separate section in the D&T national curriculum, with additional focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality. Food units still follow the design process summarised above, for example by tasking the pupils to develop recipes for a specific set of requirements (design criteria) and to suggest methods of packaging the food product including the nutritional information.

A spiral curriculum

The scheme of work has been designed as a spiral curriculum with the following key principles in mind:

- ✓ **Cyclical:** Pupils return to the key strands again and again during their time in primary school.
- ✓ **Increasing depth:** Each time the key strand is revisited it is covered with greater complexity.
- ✓ **Prior knowledge:** Upon returning to each key strand, prior knowledge is utilised so pupils can build upon previous foundations, rather than starting again.



Is there any flexibility in the Kapow Primary Design and technology scheme?

Our Design and technology scheme of work is organised into units of four lessons (or six in EYFS: Reception).

Within each unit, lessons must be taught in order as they build upon each other.

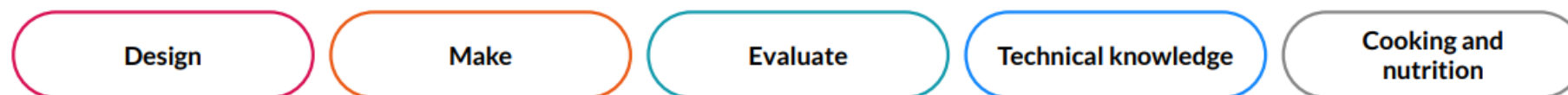
Across a single year group, units themselves do not need to be taught in the suggested order.

The flexibility in the order allows schools to adapt the planning to suit their school and to make use of cross-curricular links available.

The suggested order in these long term plans takes account of the limited resources which may be available in school. Therefore the key strands have been distributed across the year so that all year groups are not requiring the same tools and equipment at the same time.

Why have we chosen to include these Design and technology units?

For Design and technology, we had to make some difficult decisions about which units to include and which to omit. We have carefully selected units to ensure gradual progression towards the National curriculum end of key stage attainment targets and to cover all of the five strands shown below in enough detail.



Some key areas appear less frequently than others, for example Textiles, and this is deliberate. The National curriculum statements below show that working with textiles is only a small element of the Make strand and many of the making techniques covered in our Textiles units are also covered with a range of materials in other units, such as the use of templates, modelling, measuring and marking out, cutting, shaping and joining.

Make (KS1)	Make (KS2)
select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Similarly in Year 2, the coverage of key areas is deliberately imbalanced as there are two Mechanisms units. This is because there is strong progression between the Y1 Structures: Constructing a windmill and the Y2 Mechanisms: Fairground wheel and then again with the Y2 Mechanisms: Making a moving monster. To omit one of these units would negatively impact on the progression.

Because our Design and technology units are designed to take four lessons, we have also included some suggestions for stand alone lessons which you could use if you find that you have lessons 'to spare.' Please note that the skills and knowledge from these stand alone lessons is **not** included on the *Progression of knowledge and skills – combined*.

