EASTRY C OF E PRIMARY SCHOOL KNOWLEDGE ORGANISERS

YEAR GROUP	5
SUBJECT	DT
KEY VOCABULARY	research, engineer, criteria, resources, audience, aesthetics, refine, sustainable, component, precision
END POINTS KNOWLEDGE	Expand my knowledge by using the internet and questionnaires for research and design ideas Know who the product is for: Consider needs/wants of individuals/groups when designing and ensure product is fit for purpose Create own design criteria Know how to produce a logical, realistic plan and explain it to others. Know how to use cross-sectional planning and annotated sketches Use my knowledge to make design decisions considering time and resources. Clearly explain how parts of product will work. Know how to model and refine design ideas by making prototypes and using pattern pieces. I know how to select and use tools/equipment with good level of precision I know which material is the most appropriate, fit for purpose; explain choices, considering functionality Create and follow detailed step by-step plan Use my knowledge to explain how product will appeal to an audience Accurately measure, mark out, cut and shape materials/components Accurately assemble, join and combine materials/components Accurately apply a range of finishing techniques Use techniques that involve a small number of steps I know how to evaluate ideas and finished product against specification, considering purpose and appearance. I know how to test and evaluate the final product. I can evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose I know through research how sustainable materials are.

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	I know how to refine my product after testing. With support I know how to use cams, pulleys or gears to create movement. I know how to be safe / hygienic and follow own guidelines. I know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.
IT HELPS IF I ALREADY KNOW	Design • I can research for design ideas • I can show a design meets a range of requirements and is fit for purpose • I can begin to create own design criteria • I can have at least one idea about how to create product and suggest improvements for design. • I can produce a plan and explain it to others say how realistic plan is. • I can use an annotated sketch • I can make and explain design decisions considering availability of resources • I can explain how my product will work • I can make a prototype. Make • I can select suitable tools and equipment and explain my choices in relation to required techniques and how to use accurately • I can select appropriate materials, fit for purpose; explain choices • I can work through a plan in order. • I can realise if my product is going to be good quality • I can measure, mark out, cut and shape materials/components with some accuracy • I can assemble, join and combine materials and components with some accuracy apply a range of finishing techniques with some accuracy

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Evaluate

- I can refer to design criteria while designing and making
- I can use criteria to evaluate product
- I can begin to explain how I could improve original design
- I can evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose
- I can discuss by whom, when and where products were designed

Technical knowledge: materials / structures

- I can measure carefully to avoid mistakes.
- I can attempt to make the product strong
- I can continue working on product, even If original didn't work
- I can make a strong, stiff structure

Technical knowledge: mechanisms

- I can select the most appropriate tools / techniques
- I can explain alterations to product after checking it
- I can grow in confidence about trying new / different ideas.
- I can use levers and linkages to create movement
- I can use pneumatics to create movement

Technical knowledge: Textiles

- I can begin to devise a template
- I can think about user when choosing textiles
- I can think about how to make a product strong
- I can explain how to join things in different ways
- I can understand that a simple fabric shape can be used to make a 3D textiles project

Technical knowledge: Food and nutrition

	• I can explain how to be safe/hygienic • I can consider presenting product in interesting/ attractive ways • I can understand that ingredients can be fresh, pre-cooked or processed Begin to understand about food being grown, reared or caught in the UK or wider world • I can describe how a healthy diet variety / balance of food and drinks • I can explain importance of food and drink for active, healthy bodies • I can prepare and cook some dishes safely and hygienically • I can use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking Technical knowledge: Electrical systems • I can use a number of components in circuit • I can program a computer to control product