



## 1. Exploration, research and investigation of previous designs/ designers

- Who else has designed something similar?
- What have others done before?
- What worked well / didn't work well in these designs?
- Look at images to research methods, materials, components and systems
- Gather images and information

## 2. Design Criteria, Purpose & Idea Generation

- What are you going to design?
- Why are you designing your item?
- What will its purpose be?
- Who will use it?
- What functions will it require? What does it need to be able to do?
- Research a range of different systems, mechanisms, methods, materials, components
- Develop and generate different design ideas
- Develop written design criteria

## 3. Learning New Skills

- Experiment with different joining techniques and adhesives
- Explore the properties of different materials and components
- Learn any new skills you may need – watch others, videos, demonstrations etc
- Generate different design ideas - How will it work?
- Investigate and evaluate your different designs

## 4. Step-by-Step Planning

- How are you going to make your design?
- What will you need? Resources, templates, components, materials, tools, environment
- What methods will you use?
- Create and record your plan step – by - step

## 5 - Create a prototype ( & Finishing Your Product)

- Make your chosen model from your chosen materials and components
- Apply your previous and newly learnt skills to build your design idea
- Follow your plan and adjust to overcome challenges you face in construction phase.
- Apply your chosen methods, mechanisms and components
- Follow safety / hygiene procedures
- Work in an ordered and methodical way
- Consider your finishing techniques (KS2)
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## 6. Test and Evaluate your product

- Test your product practically.
- Does it fulfil the design criteria?
- Does it do the job it was designed to do?
- How suitable is your item for its intended user?
- Evaluate your design
- Allow others to evaluate your design
- What improvements did you make during your design?
- What improvement could still be made to improve your design further?