

## Year 6 ~ DT Knowledge Organiser Key threads

Mechanical Systems	Inventions and Achievements
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### Design:

A design is a plan or drawing of something that you intend to make. It often shows the look and function of an object before it is made. Adding labels to your design can help you to think about what you will need.

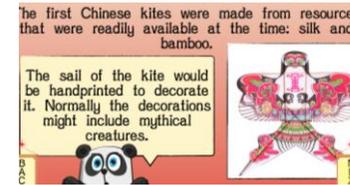
5. Learning intention - To design a kite based on design criteria.

### Evaluate:

Reflect and evaluate your end product against your design criteria. Consider the views of others to improve your work

### Explore Properties of Materials:

Explore and consider the texture and properties of materials to ensure they are suitable for purpose.



### Research:

Use research of Chinese inventions to generate ideas that will inform your design.

1. Learning intention - To research and evaluate materials to explore their properties.

### Attaching the Materials:

Attaching the Materials. It is important to think ahead about how you will attach materials together to form your design structure correctly.

What resources do you need to attach materials to one another?

4. Learning intention - To build and test prototype kites.

### Design Brief:

Design and make your own kite. Collect research, explore materials and select appropriate tools and resources to use. Consider appropriate features of kites and select materials fit for purpose.

2. Learning intention - To evaluate inventions and consider how to improve the design.

### Vocabulary:

1. Inventions, Material, Strength, **Absorbent**, Observe, **Opacity**, Research, Design criteria, fit for purpose, Innovative, Functional.
2. Evaluate, Advantages, Disadvantages, Improve, Diagram, Label.
3. Investigate, Machine, Gogs, Levers, Pulley systems, Gears, Cams, Accurate, Predict.
4. Build, Test, Prototype, Material, Weight, Strength, Easy to use, Properties, Lightweight.
5. Design, Criteria, Frame, Shape, Strengthening, Joins, Suitable, Unsuitable, Cross Spar, Sail, Spine, Kite tail, Kite line, Weight, Appearance.
6. Plan, Design, Evaluate, Changes, Final product, Improved.

\*new vocabulary in bold

