

# Chinese Inventions : DT : Year 5/6

	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To understand how the four great inventions of China shaped the world.	Children are introduced to China's four greatest inventions. They investigate the history of the invention of the moveable-type printing press and the ancient process of paper making. They then reflect on how these inventions may have changed the lives of people who used them.	<ul style="list-style-type: none"> <li>• Can children name some significant inventions?</li> <li>• Are children able to describe the process of making paper?</li> <li>• Can children name a way in which the invention of paper, or the moveable-type press changed the world?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheets 1A/1B/1C</li> <li>• Challenge Cards 1A/1B/1C/1D/1E</li> <li>• Equipment stated on Challenge Cards</li> <li>• Different types of paper</li> <li>• Paper-Making Sheet 1A</li> <li>• Equipment listed on Paper Making Sheet 1A</li> </ul>
<b>Lesson 2</b>	To understand how the four great inventions of China shaped the world.	Children investigate the next two of China's great inventions: gunpowder and the compass. They are asked again to think about how these inventions would have changed the way things were done after they were invented. They look at the design of simple compasses and think about advantages, disadvantages and improvements for each design.	<ul style="list-style-type: none"> <li>• Can children name an ancient use of gunpowder or compasses?</li> <li>• Are children able to evaluate a product's advantages and disadvantages?</li> <li>• Are children able to follow a simple method for constructing a product?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Challenge Cards 2A/2B</li> <li>• Cork slices, plastic cups, needles, magnets, cotton thread, water</li> <li>• Worksheets 2A/2B</li> <li>• Worksheet 2C (FSD? Activity only)</li> <li>• Feng Shui Card 2A (FSD? Activity only)</li> </ul>
<b>Lesson 3</b>	To investigate water-powered machines.	Children will explore the use of water power when building early machines in ancient China. They will think about the uses of these machines as well as the components such as gears and cranks which make the machines move in different ways. They think about the other uses of water to make simple machines such as water clocks and water wheels which inspired Su Song's astronomical clock tower.	<ul style="list-style-type: none"> <li>• Can children explain what a machine is?</li> <li>• Are children able to describe how a transmission of gears move in comparison to each other?</li> <li>• Are children able to take a simple design and modify it to suit their needs?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Challenge Cards 3A/3B</li> <li>• Resources listed on Challenge Card 3A</li> <li>• Worksheet 3A (FSD? activity only)</li> <li>• Construction kits (FSD? activity only)</li> <li>• Gear Template (FSD? activity only)</li> <li>• Split pins (FSD? activity only)</li> <li>• Challenge Card 3C (FSD? activity only)</li> </ul>
<b>Lesson 4</b>	To test materials to build a kite.	Children will use their knowledge and understanding of materials and their properties to predict test results and evaluate different materials to be used to make the sail and the frame of a kite by making prototypes. They will need to think carefully about which properties make the materials desirable for these purposes and which properties they might want to avoid when choosing what to build a kite from.	<ul style="list-style-type: none"> <li>• Can children identify different properties of a selection of materials?</li> <li>• Are children able to select desirable properties of materials to fit a design?</li> <li>• Can children evaluate a prototype's success?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheets 4A/4B/4C</li> <li>• Kite Template 4A</li> <li>• String</li> <li>• Sail materials to test</li> <li>• Frame materials to test</li> </ul>
<b>Lesson 5</b>	To design a kite based on a set of design criteria.	Children use their learning from the previous lesson to decide upon materials to build a kite from. They will generate design criteria for their kites and be conscientious in meeting these criteria within their design. Alternatively they can design their kite to meet a given design brief.	<ul style="list-style-type: none"> <li>• Can children write design criteria?</li> <li>• Are children able to follow design criteria when designing a product?</li> <li>• Are children able to use previous prototyping to apply to their design process?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Picture Cards 5A</li> <li>• Worksheets 5A/5B/5C</li> <li>• Challenge Card 5A</li> </ul>
<b>Lesson 6</b>	To make and evaluate a kite.	Children use their designs to build and evaluate their own kite using the materials they chose. They must think carefully about how to finish their kite to improve the aesthetics and make sure they are still meeting design criteria. When evaluating their design they have the opportunity to share and receive peer feedback and take this on board.	<ul style="list-style-type: none"> <li>• Can children choose between a variety of tools to make their product?</li> <li>• Can children solve problems when making their product?</li> <li>• Can children evaluate their product based on design criteria?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheets 6A/6B</li> <li>• Materials based on children's designs</li> <li>• Materials to decorate e.g. paint, tissue paper, glue etc.</li> <li>• Comment Cards</li> </ul>