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| **Design a Coronation Throne** | | |
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| Design a throne for use by the new King which includes modern technologies | | |
| **Subject(s):** Design and Technology, Engineering  **Approx time:** 40 – 70 minutes |  | **Key words / Topics:**   * Coronation * throne * King * design brief * design criteria * sketching * modern technologies |
| **Stay safe**  Whether you are a scientist researching a new medicine or an engineer solving climate change, safety always comes first. An adult must always be around and supervising when doing this activity. You are responsible for:    • ensuring that any equipment used for this activity is in good working condition  • behaving sensibly and following any safety instructions so as not to hurt or injure yourself or others    Please note that in the absence of any negligence or other breach of duty by us, this activity is carried out at your own risk. It is important to take extra care at the stages marked with this symbol: ⚠ | | |
| **Suggested Learning Outcomes** |  |  |
| * To be able to design a coronation throne that incorporates modern technologies * To be able to communicate design ideas using sketches, notes and annotations. | | |
| **Introduction** |  |  |
| This is one of a series of resources designed to allow learners to use the theme of the coronation of King Charles III to develop their knowledge and skills in Design & Technology. This resource focusses on the design of a coronation throne for the new King which incorporates modern technologies.  During the coronation King Charles will sit on the throne. This is a ceremonial chair that is used by a monarch or ruler. Historically thrones have been very ornate, to emphasize the power of the person sitting in them. However, most thrones were produced before a lot of modern technologies were invented. | | |
| **Purpose of this activity**  In this activity, learners will design a coronation throne for the new King that incorporates modern technologies.  This activity could be used as a stand-alone main lesson activity to teach learners about sketching, design or how modern technologies can be incorporated into different objects. Alternatively, it can be used as a part of a wider group of resources that use the Coronation theme to build knowledge and skills in D&T and Engineering. | | |
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| **Activity** |  | **Teacher notes** |
| **Introduction (5-10 minutes)**  Teacher to explain that learners are going to design a coronation throne for the new King that incorporates modern technologies.  **Design criteria (5 -10 minutes)**  Teacher to discuss the design brief and design criteria with the learners.  Examples of some throne designs and modern technologies are included in the presentation – these could be used to stimulate ideas, if required.  **Designing the throne (20-35 minutes)**  Learners sketch their idea for a coronation throne. It must meet the needs of both the design brief and design criteria given. They should ensure that they show and fully explain how modern technologies are used to enhance the throne.  **Discussing the results of the activity (10-15 minutes)**  Learners to ask three people to suggest one improvement each to their design.  They should then select one of these suggested improvements and use it to update the design. |  | It may be necessary to explain what is meant by a throne, as described in the introduction above.  **Designing the throne**  Examples of some throne designs and modern technologies are included in the presentation – these could be used to stimulate ideas, if required.  Learners could incorporate many modern technologies such as:   * new materials such as carbon fibre and lightweight metals * lighting, using colourful light emitting diodes (LEDs) * built-in speakers * heating * the ability to hover, using magnetic levitation, rockets or powerful fans * wheels to let the throne drive around * monitor screens and cameras * robotic arms * USB charging ports   Designs can be produced on the handout provided or on blank A4/A3 paper. Learners should use notes and annotations to identify the technologies used and explain how their design meets the needs of the design criteria. |
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| **Differentiation** |  |  |
| **Basic** |  | **Extension** |
| * Specify the technologies to be included into the throne * Provide a feint template of a throne or chair that learners can draw over to create their design |  | * Incorporate multiple technologies into the design * Allow access to the internet to research other modern technologies * Learners could consider other potential uses of the throne that they have designed. |
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| **Resources** |  | | **Required files** icon-docicon-pdficon-ppt |
| * Projector/whiteboard * Sketching equipment * A4/A3 paper |  | | icon-ppt Presentation – Coronation throne  icon-pdf Coronation throne - handout |
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| **Additional websites** |  | |  |
| * **The official royal website for the coronation:** https://www.royal.uk/coronation * **Royal Family - King’s Coronation:** Information about the plans for the coronation from the official Royal Family website. <https://www.royal.uk/coronation-weekend-plans-announced> * **BBC News – King’s Coronation:** Information about the King’s coronation and the stages that make up the ceremony. <https://www.bbc.co.uk/news/uk-63543019> * **YouTube:** Newinventions that are at another level:<https://www.youtube.com/watch?v=FxWNws3X0qM> | | | |
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| **Related activities (to build a full lesson)** |  | |  |
| **Starters** (Options)   * Discuss what a throne is and why it is important. What examples of thrones or chairs for important people can learners think of? * Watch the video: **YouTube:** Newinventions that are at another level:https://www.youtube.com/watch?v=FxWNws3X0qM | | **Plenary**   * Peer review, giving feedback on designs | |
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| **The Engineering Context** |
| As new technologies emerge engineers investigate how the technologies can be adapted and incorporated into existing products. This can allow products to function in a different way or to achieve different uses. |

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| **Curriculum links** | |
| **England: National Curriculum**  Design & Technology   * KS3 1a, 1b, 1d, 1e, 3c, 3d | **Northern Ireland: Curriculum**  Technology & Design   * KS3 Knowledge, understanding and skills: Design – identifying problems; investigating, generating, developing, modelling and evaluating design proposals; giving consideration to form, function and safety. * Communication – use of free-hand sketching and formal drawing techniques and ICT tools (including 3D modelling).   Learning Outcomes:   * Demonstrate creativity and initiative when developing ideas and following them through. |
| **Scotland: Curriculum for Excellence**  Technologies   * TCH 3-05a, TCH3-07a, 4-09a, 3-11a | **Wales: National Curriculum**  Design and Technology  KS3 Skills: Designing 1, 2, 3, 6, 8 |
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| **Assessment opportunities** | | |
| * Regular questioning throughout the activity, formal teacher assessment of completed work, peer review of designs produced. | | |
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