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| **Adorable Advent** | | | |
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| A graphics project making an Advent calendar | | | |
| **Subject(s):** Mathematics, Design & Technology  **Approx. time:** 45 - 60 minutes |  | | **Key words / Topics:**   * Christmas * Advent * Calendar * Fold * Net |
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| **Suggested Learning Outcomes** |  | |  |
| * To be able to make a graphic product by cutting and folding a net * To be able to count from 1 to 24 | | | |
| **Introduction** |  | |  |
| This is one of a series of resources designed to allow learners to use Christmas themes to support the teaching of the primary National Curriculum. They are designed to support the delivery of key topics within maths and design & technology.  This resource supports counting skills and practical skills, making a graphic product from a net. Nets are important as they allow 3D objects to made when folded. | | | |
| **Purpose of this activity**  In this activity learners will use a net of an Advent calendar and add their own designs were needed. This can then be used to support counting skills.  This activity could be used as a main lesson activity to teach learners how to use nets to make useable objects. It could also be used as one of several activities within a wider scheme of learning focussing on the use of maths to understand the use of nets. | | | |
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| **Activity** |  | | **Teacher notes** |
| **Introduction (5 minutes)**  Teacher to explain that learners are going to use a net to make an Advent Calendar. Teacher to use the presentation to explain the parts of an advent calendar, then hand out equipment needed for the task to learners.  **Making the Advent calendar (35-45 minutes)**  Teacher to demonstrate the steps shown in the teacher presentation and listed below.   * Step 1 – Clearly identify the solid and dotted cutting lines on the handout. Choose a door style for the front of the advent calendar and add design and colour to the calendar * Steps 2a and 2b – Safely cut out the calendar doors using scissors. * Step 3 – Glue the Advent calendar front to a back page made from stiff card. Choose icons from the activity sheet and cut out safely with scissors. Glue the icons behind the 24 doors. * Step 4 – Fold the doors to close them and use the calendar or give it as a present.   Learners to complete each step to conduct the activity for themselves. The teacher presentation could be left on the whiteboard as a supporting guide as they do this.  **Discussing the results of the activity (5-10 minutes)**  Three kisses and a wish. Learners show their calendar to a peer, who must identify three good things about it and one thing that could be improved in the calendar.  Learners could also use their calendars to practice counting the days. |  | | This activity demonstrates how nets are used to make graphic products.  Learners could design their own doors and design in step 1. Steps 2 to 5 allow the learners to cut out and fold a net for the Advent calendar.  Please note that the presentation describes the simpler double door version of the advent calendar. If learners use the single door version, they should cut out the solid lines and fold the dotted line.  It is possible to change the sequence of the steps for creative purposes. Learners could cut out their doors then apply graphics to the rear of the handout, turning it around so that this becomes the front. This allows the potential for more creative designs. |
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| **Differentiation** |  | |  |
| **Basic** |  | | **Extension** |
| Provide learners with pre-cut nets of the Advent calendar (for example, using a craft knife quickly cut the central slit for the doors or the whole door). Doors could also be folded in advance. |  | | Learners could manufacture the single door version rather than the double door version.  Learners could design their own calendar door layout and design. |
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| **Resources** |  | | icon-doc**Required files** icon-pdficon-ppt |
| * A4 paper and card * Scissors * Glue stick * Rulers * Drawing and colouring equipment |  | | Teacher presentation – Adorable Advent  icon-pdf Adorable Advent – Activity handout sheets 1-3 |
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| **Additional websites** |  | |  |
| * **YouTube** – Advent explained in 60 seconds with LEGO! - <https://www.youtube.com/watch?v=kKpFoMaQSgE> * **Bitesize** – What are nets? - <https://www.bbc.co.uk/bitesize/topics/zt7xk2p/articles/z247tv4> | | | |
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| **Related activities (to build a full lesson)** |  | |  |
| **Starters** (Options)   * Watch the YouTube video explain Advent. * Show some examples of products made from nets, such as boxes or packaging. Ask learners to describe how they think these were made. * Watch the Bitesize video on nets | | **Extension** (Options)   * Learners could manufacture the single door version rather than the double door version. * Learners could design their own calendar door layout and design.   **Plenary**   * Three kisses and a wish. Learners show their calendar to a peer, who must identify three good things about it and one thing that could be improved in the calendar. * Learners could also use their calendars to practice counting the days. | |
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| **The Engineering Context** film |
| * Engineers are required to use mathematics knowledge and skills regularly as part of their everyday job. They use nets to make scale models of buildings and other structures, as well as packaging for other products. |

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| **Curriculum links** | |
| **England: National Curriculum**  Mathematics  KS1 Maths   * count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. * count, read and write numbers to 100 in numerals.   KS2 Geometry   * recognise, describe and build simple 3-D shapes, including making nets. | **Northern Ireland Curriculum**  KS1 – Mathematics and Numeracy  Number:   * count, read, write and order whole numbers, initially to 10, progressing to at least 1000.   KS2 – Mathematics and Numeracy  Shape and Space   * build and make models with 3D shapes; create pictures and patterns with 2D shapes |
| **Scotland: Curriculum for Excellence**  Numeracy and Mathematics  Number and number processes:   * MNU 0-02a * MNU 0-03a   Shape, position and movement  MTH 2-16   * Through practical activities, I can show my understanding of the relationship between 3D objects and their nets. | **Wales: National Curriculum**  Mathematics  Mathematical Development  Use number facts and relationships:   * recite numbers up to 100, forwards and backwards and from different starting points   KS2 – Using geometry skills   * construct solids from given nets |
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| **Assessment opportunities** | | |
| * Informal teacher assessment of practical skills while making the calendar. * Formal teacher assessment of the completed calendars. | | |
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