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| **Create a recycled basket** | | |
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| Making woven baskets out of recycled paper | | |
| **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: ⚠ | | |
| **Subject(s):** Design and Technology  **Approx. time:** 80 – 110 minutes |  | **Key words / Topics:**   * basket * recycled materials * storage * textiles * weaving |
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| **Purpose of this activity** | | |
| In this activity learners will develop their knowledge and understanding of the weaving process and how it can be applied to make products. They will use recycled and re-used materials to produce a basket that can be used to store small items or presents for Christmas. This is a challenging activity that requires manual dexterity.  This activity could be used as a main lesson activity to teach about the skills and techniques associated with making textile products using weaving. It could also be used as part of a wider scheme of learning focusing on environmental issues within design and technology. | | |
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| **Suggested learning outcomes** | | |
| * To be able to apply the process of weaving to create a basket. * To understand how strong structures can be created from weaker materials. * To understand the benefits of using recycled materials to make products. | | |
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| **Introduction** | | |
| This is one of a series of resources designed to allow learners to use the theme of the festive season to develop their knowledge and skills in Design and Technology and Engineering. This resource focuses on making a woven basket out of recycled paper.  Recycling helps to reduce the amount of new materials that we need to make products. Your challenge is to use recycled paper to make a great looking and strong woven storage basket for Christmas! | | |
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| **Activity** ⚠ |  | **Teacher notes** |
| **Introduction (5-10 minutes)**  Teacher to explain that learners are going to use recycled paper and the weaving process to make a storage basket for Christmas.  **Weaving activity (65-90 minutes)** ⚠  Teacher to hand out the resources. Learners to follow the steps shown on the teacher presentation.   * **Step 1** – Cutting strips (5 mins)   The learners cut the paper into strips.  **Steps 2 & 3** – Making the straws (20-30 mins)  Make 24 straws for the frame of the basket by wrapping the paper strips around the skewers and then removing them. Then make 20 straws using a different colour of paper.   * **Step 4** – Making the base (10-15 mins)   Cut two pieces of card from the box to make a strong base for the basket. Glue on the straws as shown in the teacher presentation.   * **Step 5** – Weaving (20-30 mins)   Follow the instructions carefully to create a weave with the straws. It is important to connect each straw into the next one properly to get a strong weave.   * **Step 6 –** Finishing the top (10 mins)   Secure the ends as shown in the teacher presentation.  **Plenary (10 mins)**  Show the completed baskets to the class. What went well? What could be improved if this activity was repeated? |  | The teacher may wish to demonstrate the steps shown in the teacher presentation in advance or take learners through each slide step-by-step. A finished example would also help to give the learners a visual reference.  An alternative to steps 1-3 is to use art straws, although these may not have the advantage of allowing discussion about recycling.  **Step 1 –** Larger scissors will help with cutting straighter strips. Thin dowel or rod can be used instead of a skewer and will work just as well. This stage can be shortened if some strips are provided pre-cut. If recycled, wrapping or larger format paper is used then extra time will be needed as the cuts will be more complicated.  **Steps 2 & 3** – Learners will need at least 24 straws of one colour (for the frame) and 20 of another colour. If the learners work in pairs the time could be shortened accordingly. Ensure the glued ends are allowed to dry before moving to the next step.  **Step 4 –** The two pieces of card could be from an empty box or be cut from any available card, although this would weaken the environmental aspect of the activity. Make sure there is enough drying time for the glue used on the base.  **Step 5 –** The time required will depend on how tight learners make the weave. It may also be necessary to make more straws as they go along.  **Step 6 –** This can be done in the same colour, or a contrasting colour to give an edge effect. |
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| **Differentiation** | | | |
| **Basic** |  | | **Extension** |
| * Provide a finished example for reference. * Pre-cut the paper strips in advance. * Roll the paper strips around the skewers, or use a suitable alternative (e.g. dowel) to create some of the straws required in advance. * Use art straws (and skip steps 1-3 of the teacher presentation). |  | | * Use a variety of coloured paper to create different basket designs. * Create a basket using a different sized or shaped base. * Add handles to make a basket that can be carried. |
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| **Resources** ⚠ |  | | icon-doc**Required files** icon-pdficon-ppt |
| * Recycled paper * Scissors * PVA glue * Skewer or dowel * Empty card box |  | | Teacher presentation – Recycled baskets |
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| **Additional websites** | | | |
| * **Wheaton Arts – Newspaper baskets:** Instructions on how to make a woven newspaper basket. <https://www.wheatonarts.org/newspaper-basket/> * **Instructables – Weaving baskets with newspapers:** Instructions for making a more complex basket. <https://www.instructables.com/Weaving-baskets-with-newspaper/> * **WikiHow – How to make a paper basket:** Instructions using several different techniques to make paper baskets. <https://www.wikihow.com/Make-a-Paper-Basket> | | | |
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| **Related activities (to build a full lesson)** |  | |  |
| **Starters** (Options)   * Discuss the history of basket making and the techniques/materials used. * Discuss what is meant by recycling and the benefits of using recycled materials. | | **Extension** (Options)   * Use a variety of coloured paper to create different basket designs. * Create a basket using a different sized or shaped base. * Add handles to make a basket that can be carried.   **Plenary**   * Show the completed baskets to the class. What went well? What could be improved if this activity was repeated? | |
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| **The Engineering Context** film |
| * Engineers must understand the environmental impact of the designs they produce and how their carbon footprint can be reduced, for example through making more use of recycled or re-used materials. * Structural engineers need to understand how weaker materials can be used to create stronger structures, such as using rope to make bridges. * Weaving is an essential skill for textiles designers and engineers. |

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| **Curriculum links** | |
| **England: National Curriculum**  Design and Technology   * KS2 2a, b | **Northern Ireland Curriculum**  Technology and design   * Manufacturing – selecting and using materials fit for purpose. |
| **Scotland: Curriculum for Excellence**  Technologies   * TCH 1-04b, 2-04b * TCH 1-07a * TCH 1-10a | **Wales: National Curriculum**  Design and Technology   * KS2 Skills: Making 1, 3 |
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| **Assessment opportunities** | | |
| * Informal assessment of the skills demonstrated during making the baskets. * Formal assessment of the finished baskets. * Self/peer assessment of finished baskets. | | |
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