

Need ideas for winning a specialty prize?

We've compiled some ideas based on the previous year's Carton 2 Garden applicants for you to peruse.

STEM Integration

- Many schools used their cartons to conduct science experiments practicing fundamental skills such as engaging in research, predicting results, designing experiments, collecting data, analyzing results and using the findings to recommend best practices. For example one group used the cartons to create different types of drip irrigation systems and then carefully tested their inventions to determine which was the most efficient use of water.
- Cartons were used to design hydroponic garden systems to teach students about innovative growing techniques and water conservation
- Cartons were used to grow native plants to accompany lessons about pollinators and rain gardens and learn about growing and protecting local ecosystems and habitats.
- Construction of many of the projects allowed for practicing engineering principles such as design, scale, and how to manage weight loads. Planting structures varied from having an artistic emphasis such as depicting the school mascot to a more functional design including the construction of green walls.
- Cartons were also used for math-focused ten frames activities, creating living manipulative for younger students to practice counting, addition and subtraction, increasing their number sense through hands-on activities.
- Schools developed sensory gardens using cartons as planting containers to create a space for students to practice their observation and data collection skills. Many of these sensory gardens were designed on vertical gardening structures to optimize space.
- One Carton 2 Garden winner used cartons to engineer rooftop gardens for beehives. The gardens were designed to buffer the hives from the weather and offered drought resistant flowering plant species to provide a food source.
- Cartons were used to explore different types of plant propagation techniques teaching students that new plants can be grown through methods other than the planting of seeds.
- Indoor gardens were designed and planted using cartons to help extend the growing season in schools located in regions with long winter months.



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Environmental Stewardship

- Cartons were used to create pollinator habitats and promote efforts to protect declining pollinator populations.
- Cartons were used to create a number of different functional garden structures including a shade house, vertical garden raised beds, cold frames, and a trellis system saving the gardens money and teaching students how to reuse available materials.
- A number of projects used cartons to promote water conservation in their school garden. For example, cartons were used to collect and store rainwater and also to create drip irrigation systems. One school created a drainage system that helped maximize both rain and irrigation water making to the plant roots.
- Motivated by drought conditions, one project focused on using the cartons to grow organic microgreens with minimal water to provide salads for the entire school. They learned that through traditional farming methods it can take up to 15 gallons of water to grow 1 pound of lettuce, but using a wicking system, they grew organic microgreens for 453 students using only 4.5 gallons of water.
- A number of schools used cartons to grow native plants to both distribute to the community to encourage environmentally friendly landscapes and support pollinators and also for service projects to help re-establish natural areas in their community.
- Cartons were used in numerous ways to help create and operate vermicomposting systems.
- One urban project used cartons to grow plants for a new bird habitat. Cartons were also used to add supporting elements within their habitat such as bird feeders and for water collection. Participating students researched the important role birds play in our ecosystem and tried to find solutions to help with the many challenges they face in urban locations.
- Many project winners greatly deepen students' understanding of environmental issues through their creative and enthusiastic carton collection along with the completion of their project.



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Health and Nutrition

- One school used their collected cartons to start vegetable seedlings which they then distributed to their local community and food bank to encourage home gardens, teach about healthy eating habits and increase food security.
- Wanting to make a significant impact on their community, one school's upper level students used cartons as a teaching tool for a series of nutrition education classes they developed and delivered to younger students to teach them the importance of eating a variety of fruits and vegetables each day.
- Cartons were also used to grow herb plants which were then used to teach students how to flavor healthy recipes without the addition of salt and other less nutritious ingredients.
- Although most vegetables can only be started in cartons and must later be transplanted to a large space, a couple of projects used them to grow microgreens and lettuce which can grow to a harvestable size in the restricted space and can be used in salads or to make healthy smoothies.
- One school used their cartons to grow wheatgrass to make nutritious smoothies and the planted cartons were later donated to a local animal shelter for pets to enjoy.
- Students promoted better health by creating a mobile indoor garden to improve air quality.
- One school's project grew fruit and vegetable plants to sell to the community at their very own Farm Stand. Students not only learned how to increase their access to fresh foods, they also had the chance to discover how to start and run their own business.



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Carton Art in the Garden

- In one project, cartons were used to make a mural to create awareness about the importance of pollinators. In addition to the educational display, students created a coloring page and hosted a coloring contest for local elementary students.
- At one school in Hawaii, students wanted to add a whimsical element to their garden and created a Hawaiian Hobbit Hale (house) using native plants and vertical gardening techniques.
- Cartons were used like bricks to create a functional and attractive raised bed garden. To add to the fun, students incorporate a carton statue of their school's mascot, a tiger, to watch over their planter. The resulting creation helped beautify an unattractive courtyard area at the school.
- Students at one school created a special Earth Day display consisting of an almost life-sized cherry tree along with carton bees to pollinate it. All of the students contributed to the project in different ways, but the end product was used to teach everyone about the symbiotic relationship between honey bees and cherry trees.
- Cartons were used to create a beautiful Chinese New Year display introducing cultural experiences and mentoring opportunities.
- Students learned about the surrealist art movement while also learning about "surreal" growing techniques by propagating succulents through asexual propagation in surrealism inspired containers.

