Backyard Build Contest

Overview: This contest is designed to offer a way to learn from home about what goes into building various structures and how every piece, from design to completion, work together to achieve a final product. Students will have 3 weeks to design their project. The design will include conceptual sketches, scaled drawings, materials list, project schedule, and a rationale for why they chose their design.

Students will submit their projects to the Backyard Build Committee via email and with the submission form to backyardbuildcontestvt@gmail.com.

Contest Rules:

- Contest will run for 3 weeks, starting April 29, 2020 and running through May 20, 2020
- Students should expect to complete a minimum 10-12 hours on their design and planning
- Applied learning possibilities in the content areas of math, fine arts, and design technology with application of transferable skills in areas of problem solving, communication, and collaboration.
- K-12 students in all of Vermont are eligible to enter the contest (see categories below)
- Designs must include original drawings, contestants can use outside resources/tech tools to assist in designing their project
- Contest entries should be connected to a students coursework (remote learning plan) and/or their Personalized Learning Plan (PLP)

Winners will be chosen by a Backyard Build Contest Committee made up of teachers and industry professionals.

Categories *(students must choose 1 category for their submission):*

Category A: Design it, Build it: Materials and Building crew (ages 6-16):
Contestants in this category will be responsible for designing their own structure or building to be built at their home or within their community. **The final design shall not exceed $3000.00 material costs to construct and be able to be built in two days with a crew of 4 (80 hours).** Contestants participating in this category will provide the following in their entry submission:

- Conceptual sketches
- Detailed drawings including top view and side view scale drawings
- Pictures of similar designs/inspiration
- Materials list (with total not to exceed $3000)
- Project schedule (fit into 2-day building timeline for crew of 4)

Category B: Design it, Plan it: Cash Prizes [1st - $500, 2nd - $250, 3rd - $100] (all ages):
This category is for students that want to design a building or structure that would not be built due to its size or application. Students who want to participate in the contest to explore their interest in the process behind what it takes to build a home, outbuilding, treehouse, or play structure from the ground up. Contestants participating in this category will provide the following in their entry submission:

- Conceptual sketches
- Detailed drawings including top view and side view scale drawings
- Materials list
- Project schedule (estimate)
- Written (2-3 pages) or video explanation of why they chose this design

Category C: Design it, Work it: Junior and Senior Paid Summer Internship (11th-12th graders):
This category is for Junior and Senior students that are looking to enter the trades after completion of high school. Students who enter under this category may have a certain design process parameters (provided by technical education or design technology teachers) in addition to:

- Conceptual Sketches
- Detailed drawings including top view and side view scale drawings
- Materials list
- Project schedule (estimate)
- Written (2-3 pages) or video explanation of why they chose this design

Sample Material List: Treehouse

Material	Quantity	Price Per unit	Total
2x4x8	10	$2.53	$25.30
4x8 1/2 Plywood	6	$24.5	$147.00
3 1/2” deck screws	1 5 Lb box	$53.27	$53.27
2x6x12	15	$6.00	$90.00
Roof Shingles	4	$36.00	$144.00
Roofing Nails	1 5 Lb box	$23.00	$23.00
Braided rope	85 ft	$0.75	$63.75
		GRAND TOTAL	**$546.32**

Sample Project Schedule:

Day One:
Layout: 2 hours
Excavation: base material installation (if needed): 2 hours
Foundation installation (if needed): 2 hours
Framing: 8 hours
Wall construction: 8 hours
Total hours: 22

Day Two:
Roof Construction: 6 hours
Siding: 6 hours
Window and door installation: 4 hours
Hardware installation: 4 hours
Painting: 6 hours
Total hours: 26

Project ideas: