

BUILDING BLOCK ENGINEERING 4-H

Department 1450

Superintendent: *Erik Dallman*

The BBE exhibit area focuses on using architectural blocks (“Legos”) to construct dioramas. This project allows youth to explore architectural design in a three-dimensional space. The intent for this program is to allow youth to explore the construct and gain knowledge through interaction with a common toy. This division is not intended for youth wishing to exhibit constructed kits. Kits and non-diorama displays should not be displayed in this division.

Rules

1. 4-H members must be currently enrolled in the Kansas 4-H Building Block Engineering project to exhibit in this division.
2. Each exhibitor may enter one exhibit. Exhibits must have been constructed during the current 4-H year.
3. Total exhibit dimensions may not exceed 2 feet high, by 2 feet wide, by 2 feet deep.
4. The minimum exhibit dimensions must be at least 6 inches wide and deep.
5. All exhibits should be placed in a sturdy see-through enclosure with a top, bottom, and 4 sides. A ‘clear’ tub turned upside down with the exhibit placed on the lid would be an acceptable enclosure. It may be desirable to place a cutting board or other hard surface between the lid and base plate of the exhibit to make it sturdier. This is to keep exhibit components from being “scattered to parts unknown” at the fair. The outer dimensions of the enclosure do not count towards the total exhibit dimensions but should not be excessive. The entire exhibit should fit in the display enclosure, so the enclosure does not smash into the exhibit during movement. Exhibitor entry tag must be in a prominent location on the display.
6. All components used in construction should be dust and hair free, clean, free of chips, scuffs, cracks, or broken blocks
7. Gaps or cracks should not be visible between assembled blocks unless they fit with the story, for example an earthquake
8. The primary building component should be interlocking blocks, commonly referred to by the brand name of Lego®
9. Other components can be integrated into dioramas to illustrate architectural aspects that may be difficult to convey with traditional interlocking blocks, for example marbles for small round objects
10. The use of existing “store bought” sets for major elements of the display are not allowed, use of figurines from sets is allowed as is using individual bricks or small sub-assemblies to create something different than the set it came from. For example, a car hood or front end from a car kit could be used in a “car museum,” just not the entire car. The intent of this is to ensure fairness among exhibitors and encourage maximum creativity instead of just following a set of plans.
11. Dioramas should be suitably complex and have multiple elements, for example, a campsite that has a log cabin, a tree fort, and a car.
12. All dioramas should have a story, which is part of the information pack, that describes what is happening in the diorama; this can be as simple (the nursery rhyme “Jack and Jill” for example) or complex as needed to explain to someone looking at the exhibit what is happening.
13. Vehicles that are intended to stay in a single place should be affixed to base plates with sticky tack, hot glue, or other method
14. Mechanical enhancements or motion elements that add motion to the diorama are acceptable and encouraged. For example, marry-go-rounds, doors, elevators, gears, marbles going down a channel, flapping wings, animatronics, etc. If included judges should be able to

use them and instructions should be provided for operation either in the story or on a separate page.

15. Artistic designs, for example recreating paintings like the “Mona Lisa” or “Stary Nights” and structures like “David” are not permitted as exhibits and one ribbon placing should be deducted, these exhibits should be displayed in Visual Arts.

16. Each exhibitor is required to complete the “4-H Building Block Engineering Exhibit Information Form” which is available through your local K-State Research and Extension office or at <http://blocks.engtech4ks.com/>. This form must be attached to the outside of a 10” x 13” manila envelope. Do not tie the envelope to the exhibit. All revisions of forms previously released for the division dated prior to current year are void for use and new forms must be obtained and used that are dated by the Kansas State 4-H Office for the current year.

17. Each exhibit information packet should include the following items: a. 1 to 5 pages of photos showing work on the exhibit, preferably from a beginning state to final or completed state. Final pictures help in determining where a part might go in case something comes loose. b. If appropriate operating instructions for mechanical portions of the diorama.

18. See general rules regarding specific educational display, notebook, and poster board rules.

Level I [7 - 8 years old]

145001: Interlocking brick diorama built from scratch.

145002: Building Block Engineering educational display, notebook, or poster board

Level II [9 - 11 years old]

145003: Interlocking brick diorama built from scratch.

145004: Building Block Engineering educational display, notebook, or poster board

Level III [12 - 14 years old]

145005: Interlocking brick diorama built from scratch.

145006: Building Block Engineering educational display, notebook, or poster board

Level IV [15 – 18 years old]

145007: Interlocking brick diorama built from scratch.

145008: Building Block Engineering educational display, notebook, or poster board