

LEAVENWORTH COUNTY FAIR 2026

4-H BUILDING BLOCK ENGINEERING

Superintendent: Hilary Marquette

Exhibit Judging: Monday, July 27th from 5pm – 8pm; 4-H Building (consultation)

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.

Rules

1. Read General Rules. Violation of any of the following rules may result in disqualification. All decisions will be made by a county agent and their decision is final.
2. Total exhibit dimensions may not exceed 2 feet high, by 2 feet wide, by 2 feet deep.
3. The minimum exhibit dimensions must be at least 6 inches wide and deep.
4. All exhibits are require to 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.
 - a. Cases are to be removable and should not be bolted down, glued, or sealed in any way that prevents judges from touching the actual display. (Locking handles and snap shut lids are fine.)
5. All components used in construction should be dust and hair free, clean, free of chips, scuffs, cracks, or broken blocks
6. Gaps or cracks should not be visible between assembled blocks unless they fit with the story, for example an earthquake
7. The primary building component should be interlocking blocks, commonly referred to by the brand name of Lego®
8. The use of existing “store bought” sets for major architectural elements of the display is only allowed for 7- and 8-year old’s. Use of figurines from sets is allowed as are using individual bricks to create something different than the architectural component of the set it came from. “Store bought” sets should be considered an arts and crafts entry for anyone over the age of 8. The intent of this is to ensure fairness among exhibitors and encourage maximum creativity instead of just following a set of plans.
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 is 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.

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11. Dioramas should be suitably complex and have multiple elements. They can be of buildings (inside/outside), natural spaces, imaginative/fictional areas, compartments of vehicles, logic puzzles, about anything you can think of that's not a picture or artwork. For example, a camp site that has a log cabin, a tree fort, and a car.
12. Weapons are not prohibited in dioramas. Scenes depicting battles, like you would find in museums, are acceptable exhibits. However, blood and "gore" is not to be added and will result in a ribbon place deduction.
13. 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.
14. Vehicles that are intended to stay in a single place should be affixed to base plates with sticky tack, hot glue, or other method
15. Mechanical enhancements or motion elements that add motion to the diorama are acceptable and encouraged. For example, merry-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.
16. 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.
17. The exhibitor's name, county, must be tagged or labeled on the display. Additionally, the display case should have the exhibitor's information attached to both the lid (base) and clear container (covering) as well, as the case may be separated from the display.
18. Entry of either a packet without an accompanying exhibit or an exhibit without a packet is not a sufficient exhibit.
19. Each exhibitor is required to complete the "4-H Building Block Engineering Exhibit Information Form" which is available through your local K-State 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.
20. 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.

Scoresheets, Forms, and Contest Study Materials:

- [BBE Scoresheet](#)
- [BBE Exhibit Form](#)
- [Educational Display, Notebook or Poster Scoresheet](#)

Jr. Division – (Ages 7 and 8 only) (Not a State Fair Division)

5709 Building Block Engineering with a kit.

5712 Interlocking brick diorama built from scratch

Intermediate Division – (Ages 9-13)

5710 Interlocking brick diorama built from scratch

Senior Division – (Ages 14-18)

5711 Advanced Interlocking brick diorama built from scratch

Educational Exhibits Rules

1. For notebooks, display boards, and posters, no additional exhibit information is required; no manila envelope is needed for these exhibits.
2. Exhibits shall have a **clear link to the Engineering and Technology area** of Building Block Engineering.
3. Exhibits in posters, notebooks and display boards must contain substantial supporting educational materials.
4. Educational displays may use kits and any interlocking bricks used must adhere to the other general rules set forth. Educational displays are to inform the audience about something, for example, the Titanic. They are not to be merely an entry of a kit. Entries of just kits in the educational division will be disqualified.
5. Educational display boards, posters and notebooks should be creative and showcase details about the knowledge learned in the project during the current 4-H year. Value is placed on youth who can demonstrate how their skills have increased while completing the project. Each exhibit will be judged on uniqueness, creativity, neatness, accuracy of material, knowledge gained, and content. An exhibit judging score sheet available at <http://blocks.engtech4ks.com/>.
6. Follow copyright laws, citing all sources of information in a standard notation Sources of information must be cited on the front of your exhibit, including all posters and educational display boards. Example citation: "Make a Star Finder" <https://spaceplace.nasa.gov/starfinder/en/>
7. Educational displays are not to exceed a standard commercial 4' high X 3' wide X 2' deep. No card table exhibits will be allowed. Care should be taken to use durable materials that will withstand Kansas State Fair conditions.
8. "Construction Kits" that are part of educational displays must be contained in cases (tackle boxes, sealable containers, etc.) that may not be larger than 2' x 2' x 2' and must have a latch which securely keeps all components contained in the "Construction Kits". Other components are to adhere to appropriate dimensions as stated elsewhere.
9. Posters are limited to commercial 3' X 4' tri-fold display boards.
10. Educational Project notebooks must be organized in a 3-ring binder or similar book.
11. Any three-dimensional poster or display board exhibits may not be thicker than 2 inches.
12. Exhibitor's name, county, age, and year(s) in project must be tagged or labeled on the back of the exhibit. Exhibit cards are not sufficient as they may be removed or repositioned for display. Failure to label an exhibit may result in one ribbon place deduction. 3
13. Exhibits should possess the following qualities (in no particular order):

- a. A central theme
 - b. What you want others to learn
 - c. Be designed and constructed in a manner befitting the exhibit
 - d. Be something you are interested in
14. If a safety violation is noted by the judges, superintendent, or other staff, the exhibitor's exhibit, at the judge's discretion, will receive a participation ribbon.