"I CAN..."

Innovators Expo
Shades Cahaba Elementary School
March 20-21, 2019

Shades Cahaba Innovators Expo is scheduled for Wednesday and Thursday, March 20-21. Our theme is **"I can . . ."** This year's projects are submitted in the area of engineering. We are encouraging students to become more proficient in researching, and then communicating what they have learned, based on their grade level engineering standards. Entry packets will be sent home in Tuesday Communicator Folders on Tuesday, Feb. 26th.

As you discuss engineering ideas for the Expo, you will use a **Research Plan** as a guide. Example: What engineering standard from your grade level are you interested in researching? This is the pre-planning stage of your student work. This plan will need to be completed and returned to your teacher by **Wednesday, March 6th**. Students are able to work in teams of 2 to promote team work and cooperation, but **they must work with someone in their grade level**. Remember, Innovators Expo packets will be sent home in Tuesday Communicators on February 26 with all the directions and dates.

Items to be included with ALL entries:
Research Plan
Research Results
One-page written composition (K – 5th) and works cited (3rd – 5th)

March 6	**Last day for Research Plan to be submitted to classroom teacher**
March 13	**Last day for Research Results to be completed at school**
March 20	**Set up in gym at 7:15 AM – 8:00 AM; judging throughout the day**
	Projects will be open for public viewing from 4:00 PM until 6:00 PM
March 20-21	**Projects available for public viewing in the gym 8:00 AM-2:00 PM**

Grade Level Engineering Standards to choose from:

KDG- Kindergarten
- I can design a structure to change the speed of an object in order to move another object.
- I can plan a new solution to lessen trash in the environment.
- I can plan and create a structure to reduce the effects of sunlight.

1st Grade
- I can design and construct a device that uses light to communicate over a distance (e.g., using a flashlight and a piece of cardboard to simulate a signal lamp for sending a coded message to a classmate).
- I can design and construct a device that uses sound to communicate over a distance (e.g., using a paper cup and string to simulate a telephone for talking to a classmate).
- I can solve a human problem by imitating a plants external parts to help them survive, grow, and meet their needs.
- I can solve a human problem by imitating how animals use their external parts to help them survive, grow, and meet their needs.

2nd Grade
- I can select materials based on their properties to build a structure (e.g., strength, flexibility, hardness, texture, absorbency).
- I can design and construct models to simulate how animals disperse seeds or pollinate plants (e.g., animals brushing fur against seed pods and seeds falling off in other areas).
- I can examine and test solutions that address changes caused by Earth's events (e.g., dams for minimizing flooding).

3rd Grade
- I can use magnets to solve a problem (e.g., constructing a latch to keep a door shut).
- I can solve an environmental problem that effects plants and animals (e.g., replanting of sea oats in coastal areas due to destruction by hurricanes).
- I can design a solution (e.g., flood barriers) that reduces the impact of a weather-related hazard.

4th Grade
- I can design, construct, and test a device that changes energy from one form to another (e.g., electric circuits converting electrical energy into motion, light, or sound energy).
- I can develop and use a model to show a solution in which a pattern is used to transfer information (e.g., secret code).
- I can create a solution to limit the effects of natural disasters on humans (e.g., designing earthquake resistant buildings).

5th Grade
- I can design a test to modify the speed of a falling object due to speed (e.g., constructing a parachute to keep an attached object from breaking).
- I can design a solution, test, and revise a process for cleaning a polluted environment (e.g., simulating an oil spill in the ocean or a flood in a city and creating a solution for containment and/or cleanup).