**VA Science Fair 2018 Challenge: Gliders**

**The Challenge:**

* Students will design and construct a glider which will fly the longest amount of time before hitting the floor or stopping on another object

**Participants:**

* Individual student or team of two students from 4th – 6th grade

**Permitted Materials:**

* Foam materials
* Paper, cardboard, poster board or construction paper
* Wires or pipe cleaners
* Craft or popsicle sticks
* Rubber band and hook (if used to power launch)
* Any type and amount of glue, tape, string or staples can be used for fastening

**Rules:**

1) Gliders can only be made from the materials listed.

2) Purchased kits are not allowed.

3) The maximum size of a glider must not exceed a wingspan of greater than 6 inches.

4) A glider, which meets all requirements, but appears to the judges to pose a danger to persons or property, will be disqualified at the sole discretion of the judges.

5) Each student/team will be permitted one glider at the contest.

6) Gliders may also be painted or decorated.

7) The glider may be launched by-hand or using a rubber band.

8) The launch angle is determined by the contestant.

**Judging:**

1. All flights times measured by a judge are official flights, regardless of distance achieved.

2. Each team is allowed 2 flights; the best flight of the 2 will be recorded as the student’s/team’s score.

3. In the event of a tie, a single flight fly-off will be held.

4. Gliders can be repaired or modified between trials if necessary.

**Awards:**

Longest Flight Individual: 1st & 2nd

Longest Flight Team: 1st & 2nd

**Contest Details:**

● Competition will take place on Friday, February 16,2018 in the school gym during the Science Fair (4:30 – 7:30 pm). The contest will follow project judging at approximately 6:00 pm.

● Bring your glider on Friday morning (8 – 8:40 am) so it can be displayed during the day for the class visits. Parents must supervise setup and cannot leave students unattended until 8:40 am.

● Registration deadline is January 19, 2018. Every participant must have a registration form submitted, preferably online at www.vanarsdaleelementary.digitalpta.com. Paper registration forms can be found on the Van Arsdale PTSA website as well.

● Gliders must be picked up at the end of the fair on February 16.

● Students are permitted to submit both a project and participate in the glider contest.

**Questions to help your design:**

● What is the science behind flight?

● How can you design your glider to control its flight path?

● What are the best materials to give structure but limit weight?

● What is the best way to launch your gliders to increase time, not just distance?

**Parents are encouraged to HELP their children in these ways:**

● Read and discuss these rules and guidelines.

● Plan and manage project work, documentation and deadlines.

● Help by asking questions and steering your child towards the solution.

● Help with research.

● Ensure your child’s safety.