

Vintage Hills “Advanced Lego Robotics” (4th & 5th Grades) 2015-16

Dates and Times – Specific Wednesdays 8-9 am (exact dates TBD)

- **Dates:** TBD
- **Mid April: Science Fair Bonus Session:** Come join in the fun at **Legolympics** on the evening of **April 15!**
- **Late May – Kit Cleanup Day – All Parents:** On the last day of class, parents come in, take apart the kits, locate missing parts and get everything back in good working order for next year’s group. (Required to get our \$50 Refundable Lab Fee... refunded!)

Location – Room 33 (Computer Lab)

Maximum enrollment – 20 students (1-2 students per Lego kit). With enough students and volunteers, we could have 2 groups on alternating weeks.

Resources— Lego Mindstorms EV3 Kits (18 working kits plus a demo kit)

Projects — Basic robot to start (we have instructions), followed by creative challenges (let students explore). Students must have at least 5-10 hours of Robotics experience (preferably with NXT or EV3). Programming is required, and we will teach it as needed.

Three Goals — Have fun playing together with Legos in a group. Train students in specific fundamental STEM concepts. Build projects that best achieve specific goals.

Gender Balance – Project options will be chosen to appeal widely to girls and boys.

Kit Cleanup Day — Keeping the kits “good as new” is vital to long-term Lego programs. ***Parents must plan to do one of their volunteer hours on this day at the end of the year.***

Legolympics Volunteers – 2-3 parents to help with "Legolympics" on the night of the Science Fun Fair (mid-April). For us, the Science Fair is a giant Lego party! The students enjoy competing their projects, and this is how we advertise the program for next year.

Parent Assistants — Most important! We need 1 parent present for every 7-10 children. Parents circulate among the students, spotting problems and helping them. Previous Lego experience is definitely not necessary.

Older siblings – 6th to 8th grade siblings can come & help teach the 4th & 5th graders!

Leader(s): Manages the kits, tests project ideas, and plans activities for each week. Communicates plans to other volunteers, runs class sessions, etc. This is a shared role – we have an 8th grade lead, but parent volunteers are needed to oversee this program!

Parent Coordinator: Organize Shutterfly site, manage volunteers, coordinate emails...

Program Guidance & Support: Bob Heeter (also Robotics Leader. bob@heeter.net)

PTA Enrichment Lead: Vivian Shum (vivianshum@gmail.com)