Makerspace Inventory--SOL Correlations

Item	Description	Consumables	Training from ITRT Needed	Age/Grade
5 Spheros with 5 iPads	Robotic balls--use basic apps (Sphero and Draw and Drive) for younger grades and programming apps (MacroLab and OrbBasic) for upper grades); **Math**: Percentages, division, geometry, and patterns **Physics**: Speed, time, and distance **Computer Science**: Program flow, variables, conditionals, and reading sensors Tons of Lessons here: http://www.gosphero.com/education/	No	Yes	K-2nd Math K.11, K.12, 1.12, 1.13 3rd-5th Math 3.15, 3.16, 4.2, 4.3, 4.4, 4.5, 4.7, 4.8, 4.10, 4.14, 4.16, 5.2, 5.4, 5.5, 5.6, 5.10, 5.11, 5.15, 5.18; Science 4.2, 5.3
Ollie	Similar to sphero but faster; not as many apps or educational ties yet. Use for force and motion and simple machines (ramps, wheels)	No	Yes	3rd-5th
Little Bits – Pro	Build simple electronic inventions with lights, sound, sensors, etc. Incorporate science, math, art, music. Learn input, output, power Tons of Lessons here: http://littlebits.cc/browse-lessons http://littlebits.cc/steam-resources	No (Take apart when done)	Yes	2nd-5th (ages 8 and up) Science 2.2; 4.3, 4.6; 5.2 Many more content ties under Lessons including Music and Art

Q-ba Maze	Engineering (show example for younger grades)	No	No	1st-5th Science 1.2, 3.2; 4.2
Tinkertoys	Build	No	No	K-2nd
Makedo	Cardboard creation materials (safe cardboard saw, wheels, hinges)	Somewhat (Take apart when done)	No	K-5th Math 2.15; 2.16; 3.14; Science 3.2, 5.11
3D Printer	Use tinkercad, tinkerplay app, or cookie caster; Note it takes 1 – 2 hours to print each item	Yes (filament)	Yes	K-5th for design Adults only printing Math 2.1, 2.16, 3.14, 4.12
Makey Makey	Invention Kit – control computer inputs with any conductive object; Use with computer; Can program with scratch	No	Yes	K-1st (with supervision) 2nd-5th Science 4.3
Green Screen Kit (green screen, lights, iPad stand)	Recommended app – Green Screen by Doink	No	Yes	K-1st Teacher Filmed 2nd -5th Student Filmed English and Social Studies
Parrot AR Drone	Drone with video camera Use with iPad Drone App	No	Yes	Adults Flying 4th-5th for special cases
Go Pro Hero 3 with accessories	Camera with remote, waterproof case, 2 chesty mounts, 3 way mount, and SD card. Works with GoPro iPad app or alone.	No	Yes	K-3rd with adult help 4th-5th
Cubelets	Build robots with Power, Sense and Action blocks; experienced students add Think blocks; can be used with Legos	No	Yes	K-5th

Blinky Tape Basic	Create blinking tape; Good for light painting and crafts; Use with Blinky Tape program on computer	No	Yes	3rd-5th Science 5.3
iPad Apps	Minecraft Green Screen by DoInk Tickle (Coding) Scratch Jr. WonderBox GarageBand	No	Some	K-5th
Books	Tinkering by Exploratorium The Most Magnificent Thing by Ashley Spires What Do You Do With an Idea? By Kobi Yamada Sylvia's Super-Awesome Project Book: Super-Simple Arduino (Volume 2) by Sylvia "Super-Awesome" Todd	No	No	various
Books for Library Checkout	Invent to Learn by Sylvia Libow Martinez and Gary Stager, Ph.D. Teach Like a Pirate by Dave Burgess Tinkering: Kids Learn by Making Stuff	No	No	Teacher Checkout from library
Recycled Materials	Located in boxes behind curtain and baskets under the window; Feel free to use for STEM/ Making	Yes	No	K-5th
Consumables	Puff balls, pipe cleaners, popsicle sticks, glue, paint, ect. Not a supply closet for any craft.	Yes	No	Only use for STEM/Maker projects. Once they are gone, school must replenish.
***Bare Conductive Classroom Pack**	Teach basic circuits with LEDs and conductive paints	Yes – 30 cards	Yes	4th- 5th Science 4.3

***MiniDrones (2)** **Parrot** **Parrot spider**		No	Yes	4th-5th
HummingBird	For advanced students Coding, Robotics, and Engineering	Somewhat (Take apart when done)	Yes	8 and up with supervision
Arduino Starter Kit	For advanced students—coding and electronics	No	Yes (and students need good background skills)	4th – 5th with coding and electronic understanding
E-Textile Basic Lab Pack	For advanced students Enough for 10 people to learn how to sew in a variety of LEDs and other basic electronics into any fabric, power them, and make them twinkle.	Yes	Yes	4th-5th with experience with circuits and sewing