

# Special Edition

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Free of Charge

Special News About Special People

## Karyn's & Nita's Groups

My own interest in the life and work of Leonardo da Vinci didn't fully take hold until I was 15. Before that, while aware of his genius and his contributions to the world of art, I had not been exposed to the full range of expression his intellect had found. While I forget the source, it was an article I came across in 1974 that centered on a controversy over whether a then recently "discovered" drawing of a bicycle among Leonardo da Vinci's codices was a hoax. While my born skepticism drew me into the arguments being forwarded on both sides of the dispute, my discovery of Leonardo da Vinci as a problem-solver and inventor sparked my request for copies of his notebooks as my birthday present that year. I pored over them for years, especially drawn to his sketches of novel mechanisms. I have little doubt that at some level I was missing the opportunities for invention that SRV's Shop program had regularly given me and my public school's Industrial Arts classes seemed designed to limit.

It was not until writing that last passage that I recognized in my own pedestrian efforts in Shop pale shadows of Leonardo da Vinci's inventiveness, approach to problem-solving and habit of sketching out ideas. It was about a decade ago, though, that I came across a book review that allowed me to see parallels between Leonardo da Vinci's and John Dewey's approach to education. In the book *How To Think Like Leonardo: Seven Steps to Genius*, Michael J. Gelb outlined what he called the "Seven Principles" that he saw underscoring Leonardo da Vinci's approach to the world:

### *Curiosità*

*An insatiably curious approach to life and an unrelenting quest for continuous learning*

### *Dimostrazione*

*A commitment to test knowledge through experience, persistence, and a willingness to learn from mistakes*

### *Sensazione*

*The continual refinement of the senses, especially sight, as the means to enliven experience*

### *Sfumato*

*Literally meaning "Going up in Smoke"; a willingness to embrace ambiguity, paradox, and uncertainty*

### *Arte/Scienza*

*The development of the balance between science and art, logic and imagination; also known as "Whole-brain" thinking*

### *Corporalita*

*The cultivation of grace, ambidexterity, fitness, and poise*

### *Connessione*

*A recognition of and appreciation for the interconnectedness of all things and phenomena; also known as systems thinking*

How often when we are reaching forward are we also reaching back...

## Shop

Over the last few months your youngsters have shown many of Leonardo's traits themselves; curiosity, imagination teamed with logic, building and testing knowledge and new found persistence as they learn from mistakes in their weekly forays into woodworking. . As a hurried pace of life has more and more adults choosing expedience over experience for their children (Velcro over shoelaces, for example), Leonardo's commitment to direct experience and the learning that takes place as a result of mistakes is on regular display in the shop.

When a nail misses its mark or passes through a child's project into the worktable is a much riper time to help the child examine the cause, effect and importance of proper nail selection and placement than before she is allowed to start building. The lesson is personal, meaningful and relevant to her direct experience and she is intrinsically motivated to understand the underlying reason. Coping saw blades break, nails bend and wood splits. Allowing the momentary frustrations provides the impetus to learn and, just as importantly, provides children with the necessary opportunities to develop their emotional and intellectual resiliency. The ability to solve problems takes both.

Pete and I have the good fortune of being able to learn side by side with your children as they continually discover new ways to challenge our manual and creative skills as we facilitate and assist their efforts. As such, we're modeling the same processes of trying out new ideas that don't all work, of taking unembarrassed ownership of our mistakes, and of meeting unexpected setbacks with renewed efforts. We're no Leonardo da Vincis, but I can imagine him looking favorably upon our work to fan the flames of inventive problem solving in your children.

In Karyn's Group, Adam completed his canjo and spent the following week at the Tinker Table. Having learned to test a small DC motor he found in a non-functional CD-ROM drive, Adam has decided to build a model helicopter with the motor powering the main rotors. Will it really fly? Absolutely – with flight characteristics remarkably similar to that of a rock.

Addison is apparently outfitting a game room at home as his last two projects, drawn from the pages of a project book, were a marble Skee-ball game and a Ring-toss game. I'm not sure of the status of the gaming laws in his neighborhood, but I note that he didn't outfit them with coin slots.

Casey drew inspiration from the same project book for her bulldog figurine comprised of three interlocking pieces. Work on the project helped Casey hone her skills with the coping saw, a tool she will soon be returning to in order to create a strumming area on her freshly cut canjo body.

Forest's bath time may be longer and the bathroom floor a bit damper these days if he's sending up rooster tails of water with his completed model racing boat. Forest has gone on to craft a cell phone and a "house on skis" from scrap wood and has recently joined Nathan at both the workbenches and the Tinker Table working to integrate a handful of LED's and a momentary switch they learned to desolder and test into a battery-powered Christmas tree.

Hannah has assembled the carcass of her American Girl® doll armoire and has just finished sawing out a 1/4" plywood back for the useful piece of pint-sized furniture. I note that Hannah has elected to install a dowel to allow her to hang up her doll's outfits – I can only guess that her humanlike plaything has raised some kind of stink over creases in her clothes.

Jane returned to her favorite idea book after completing her wooden belt and came out with plans for wooden beach sandals. The project gave Jane good coping saw practice on thicker wood than her previous undertakings and revealed her enjoyment of standing on tables, a necessary step when taking measurements for the footwear's leather straps. Jane has since emerged from the same pages to begin work on a duck motif letter holder.

Keenan has demonstrated both patience and resilience in the face of a fairly major setback in the creation of his canjo. Too deep a strumming area cutout weakened the instrument's neck to the degree that he needed to add a backing piece that would run its length, a development that meant having to repeat a good deal of the sanding work he had put in. If he can learn to bend notes, Keenan will have the instrument and life experience necessary to play the blues.

Margaret weathered her own minor tragedy when the wood she was using for a skyhook illusion toy virtually disintegrated under her coping saw when she was tantalizingly close to completion. Having started anew and completed the project, Margaret appears to be on some

kind of accelerated production schedule as she has cranked out a host of small projects over the past weeks. Margaret is currently engaged in a more extended effort, working from commercial plans on a bulldog figurine.

Matteo, of late, has turned from the weekly assembly of small scrap wood projects to the weekly disassembly of a crippled cordless circular saw. Showing good facility with screwdrivers, last week Matteo liberated the power tool's motor and gear assembly from the surrounding housing. While showing interest in testing the excised mechanism with an AC adapter and in finding it to be in working order, Matteo was too excited to take his prize home to consider integrating it into a woodworking project.

Fresh from the success of his completed thaumatrope track and thaumatropes, Nathan has thrown his lot in with classmate, Forest, in the joint endeavor to make a small battery-powered, light-up Christmas tree. Nathan did a great job knocking out the extensive coping saw work necessary to afford the tree with recognizable branches and this week the pair will be drilling small mounting holes for the project's LED's.

While Sydney ultimately elected not to outfit her petite pine pachyderm with wheels, she still seemed quite pleased with the results of her efforts with the coping saw. Sydney is currently on the home stretch of assembling a miniature teepee built from project book plans. Hmm...is there any evidence that Native Americans bred pet-sized wooly mammoths?

Vaughn chose to follow up her nifty miniature table with a few weeks of scrap wood work before settling in for the extended job of building a tall stool. Work on the project has found Vaughn capable of maintaining the proper tool and body alignments to power the rip saw through her pine stock without the finicky tool catching or binding. I'll give you the heads up before the completed stool comes home so that you can move the cookie jar to a much higher shelf.

In Nita's Group, Aiden altered the original project book plans for his racing boat and outfitted it with a Plexiglas bottom! He has since gone on to work from commercial plans on a marble Skee-ball game and a noisemaking toy that goes by the name of a Hornet Hummer here at SRV. Aiden has currently returned to his favorite project book to begin work on a "Car of the Future" as imagined by the book's author in the early '60's.

Alex doubled back to an unfinished project he had begun in a minicourse after successfully completing his battery-powered, fan-driven, Styrofoam-sided boat. Returning to the three apartment bird house, Alex got right back in to measuring, marking and sawing out the constituent parts. A dry assemble of said pieces revealed a few errors along the way, "Aw, *man!*" errors that Alex is currently almost done remedying in preparation for the final assembly.

Christian's father was wondering what was taking his son so long to build his hockey goal – then he stopped in to look at the progress. Christian had apparently given the impression that it was a good deal smaller than its actual size. It's fair to say that his dad went from being concerned about his son's work ethic to being impressed with the undertaking. With the family's 5<sup>th</sup> (?) goal safely home, Christian spent his last two Shop periods making a small water vessel out of a dowel and using angle cutting pliers to remove electronic subcomponents from a deceased stereo's circuit board.

Daniel will soon be riding his go-cart down the home stretch as he is now on the home stretch of its construction. Already road ready, Daniel has elected to take the additional time necessary to outfit the vehicle with a hinged top seatback/trunk. I believe pizza delivery was mentioned at some point...I'm hoping he'll take competitors' coupons because I've started printing my own. How does "Two large pizzas with purchase of small bag of chips" sound?

There's this great phenomenon that happens for the vast majority of children who aim just a little too high with a challenging project and end up having to work harder and spend much longer on it than they had anticipated. Coached over "the wall" they inevitably hit, helped to reset their expectations and see the project through, they emerge aware of just how capable they are and sign on for another challenge. Such has been Eva's story as she moves from building a Brio™ style train track and turntable to building a battery-powered, motorized dog on wheels. Confidence and patience are wonderful allies.

Having completed a pencil tree and a walkie-talkie in recent months, Jake returned to his favorite project book and built a tabletop Dial Baseball game in just three Shop periods. Leaving the crosscut saw and drill press behind, he next tried fashioning a letter opener out of some 1/4" plywood. I know the economic downturn has made colleges more aggressive in their solicitations, but I had no idea that their mailings were now targeting children so young! Jake has most recently followed classmate, Christian, into the production of small water bottles and stints at the Tinker Table.

Kai has decided that an American Kestrel is his resident of choice for his large birdhouse. Some people choose a bird to build a house for, some look to find a bird that will appreciate the house they've already built. Like classmate, Alex, Kai has found the need to make some alterations to his cut pieces as the dry assembly of same revealed a few structural oversights, "What?! Come on!" Kai may well be drawing up plans for a ladder next as experts recommend that kestrel nesting boxes be mounted 15-30 feet above the ground.

Mariette has remained remarkably busy in Shop, recently completing a pair of knitting needles and woodburning a decorative heart before taking on her current work. When Mariette found a plan for a cat motif paper pad holder in a project book, I pounced on the opportunity to ask if she'd be willing to adopt a few of the projects that had been started but never finished over the years in Summer Camp and in the

Chester East Side Ministries woodworking program. Amenable to the idea, Mariette has not only worked to complete the multiple manxes, but has already earmarked a few as gifts for friends and family.

Matteo has turned from the construction of a canjo to the deconstruction of defunct electronic devices at the Tinker Table. In the former pursuit, Matteo was introduced to the use of several new tools, in the latter he has been introduced to the use of a desoldering iron and the names and functions of the subcomponents he is removing from circuit boards. In between, Matteo put together a Hornet Hummer noisemaker. Given his recent leanings towards sound producing projects I should warn you, with my sincere apologies, that electric canjos have been made...

Megan turned from the taxing work of working from project book plans to build her toothbrush and toothpaste stand to designing a novel curved napkin holder. Without a good lumber candidate and steam cabinet to replicate the curve she had sketched, I sent Megan back to the drawing board and she returned with a squared off model. Megan made quick work of the useful project, then took a turn at the Tinker Table learning to use a desoldering iron to remove a three position switch from an old stereo's control panel. Noting Megan's scabbed nose in her napkin holder picture I recalled that our neighborhood's trees seemed to possess powerful magnetic properties when my son Luke was learning to ride a two-wheeler.

The first winch is installed! For those of you just tuning in at home, Sam has just finished fabricating, installing and testing the hand-powered winch that lifts his cargo crane's boom arm and will next be creating a second one that will raise and lower the crane's lift cable. If Sam follows the pattern of seeking bigger challenges when he completes this remarkable project, I'm hoping he doesn't decide scale models are simply no longer worth his time.

Sarah joined classmates Aiden and Matteo in the making of Hornet Hummer toys after finishing up the long haul of building her lovely shadowbox. Work on the buzzing device got her back on the manual miter saw where she had cut the earlier project's sides to length. As of this writing, Sarah has just finished working with a coping saw to cut out the body of a crocodile motif letter opener and has taken a piece of sandpaper home with which to sand the top and bottom of the project's tail to an envelope opening edge.

Since completing her ladder for dolls (those ceiling fans aren't going to dust themselves!), Savannah found a small wavy piece of pine in the scrap box and decided to turn it into a doll sliding board. Not keen to undertake the building of another ladder to support the puny playground equipment, Savannah settled on plywood sides that would raise it off the ground and provide a deterrent to her more accident prone dolls pitching over the slide's side. In the end I think Savannah considered it still too much of a risk and announced her decision to use it for marbles.

# Sports

I can't claim to be pushing children hard towards ambidexterity, but Leonardo might well appreciate the work towards physical fitness and poise in competitive play that takes place in the Sports program. He might also be pleased to note the number of games being played that were invented at Rose Valley as well as the modifications made to old playground standards designed to encourage wider and more enjoyable participation.

As I hope you've noted in the Friday emails, your children continue to engage in a wide variety of physical activities during our Friday afternoon Sports classes and many regularly take part in big muscle play during breaks and recesses as well.

Games and activities in the Sports program since the last newsletter have included (in chronological order):

“**V**” denotes game was selected by student vote

## **Karyn's Group**

**Cornerball** – Soccer style game. 7 players use feet only to defend their three foot wide corners in a mini arena created by tables turned on their sides. Players rotate out when a ball passes through their corner or they kick a ball out of the arena or hit another player above the level of the tables.

**Smaug's Jewels** – Players work individually or in concert to try to sneak up from all sides and steal “jewels” from the dragon “Smaug” who stands over them. Smaug's touch “freezes” players until the “jewels” are stolen and the spell is broken. **V**

**Kick the Jug** – *Hide and Seek* in which the “it” stays close to a centrally located plastic jug. The “it” tries to catch hiders by seeing them and calling out their names as hiders try to run in and kick the jug to free previously caught hiders.

**Team Dodgeball** – Two teams throwing, catching and dodging balls. **V**

**Snatch the Bacon** – Paired opponents on opposite ends of gym floor try to pick up “bacon” from middle of floor and return to their starting side untouched by opponent when their assigned number is called. This game incorporates “Math Rounds” in which the number of the pair to try for the bacon is the answer to a mental math calculation.

**Scooters (Free Play)** – Children are given the opportunity to explore all the means of (safely) riding and propelling low, four-wheeled gym scooters across the gym floor. **V**

**Zoo on the Loose** – Tag game. Animals tag humans who in turn become more animals tagging a dwindling human population.

**Team Dodgeball** – see above **V**

**Clean Up the Yard** – Two teams vie to throw, kick, bowl, hike, and or bat the most balls onto opponent's side of the gym before “Dad” gets home.

**East/West Capture the Flag** – Defend your flag, free teammates being held prisoner and/or enact the name of the game. Lots of open field running and opportunities for developing timing and strategy. Whole campus version. **V**

**Run the Bases** – A *Baseball* style game played on the baseball diamond or in the gym. Tennis or foam ball is thrown rather than batted into play. Outs are made by catching ball in air or throwing and hitting backstop with ball when runners are between bases. No force-outs, unlimited base runners, and runners choose when to run. In variations, runners can choose to put tennis ball, soccer ball, Foxtail ball or Frisbee into play.

**Smaug's Jewels** – see above **V**

## **Nita's Group**

**Cornerball** – Soccer style game. 7 players use feet only to defend their three foot wide corners in a mini arena created by tables turned on their sides. Players rotate out when a ball passes through their corner or they kick a ball out of the arena or hit another player above the level of the tables.

**Scooters (Free Play)** – Children are given the opportunity to explore all the means of (safely) riding and propelling low, four-wheeled gym scooters across the gym floor. **V**

**Kick the Jug** – *Hide and Seek* in which the “it” stays close to a centrally located plastic jug. The “it” tries to catch hiders by seeing them and calling out their names as hiders try to run in and kick the jug to free previously caught hiders.

**Sardines** – *Hide and Seek* but seekers hide *with* found hider. **V**

**Snatch the Bacon** – Paired opponents on opposite ends of gym floor try to pick up “bacon” from middle of floor and return to their starting side untouched by opponent when their assigned number is called. This game incorporates “Math Rounds” in which the number of the pair to try for the bacon is the answer to a mental math calculation.

**Scooter Hockey** – *Floor Hockey* on scooters using short foam sticks and small foam ball. **V**

**Smaug's Jewels** – Players work individually or in concert to try to sneak up from all sides and steal “jewels” from the dragon “Smaug” who stands over them. Smaug's touch “freezes” players until the “jewels” are stolen and the spell is broken.

**Capture the Flag** – Defend your flag, free teammates being held prisoner and/or enact the name of the game. Lots of open field running and opportunities for developing timing and strategy. **V**

**Clean Up the Yard** – Two teams vie to throw, kick, bowl, hike, and or bat the most balls onto opponent's side of the gym before “Dad” gets home.

**East/West Capture the Flag** – Whole campus version. **V**

**Run the Bases** – A *Baseball* style game played on the baseball diamond or in the gym. Tennis or foam ball is thrown rather than batted into play. Outs are made by catching ball in air or throwing and hitting backstop with ball when runners are between bases. No force-outs, unlimited base runners, and runners choose when to run. In variations, runners can choose to put tennis ball, soccer ball, Foxtail ball or Frisbee into play.

**East/West Capture the Flag** – Whole campus version. **V**

*Until next time,*

*Mike*