



RTC-TH Sep 2014 Update

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Community-based environmental education for the self-sufficiency and sustainability of small rural family farms

ชุมชนตามสิ่งแวดล้อมศึกษาเพื่อการพึ่งตัวเองและยั่งยืนชนบทขนาดเล็กครอบครัวฟาร์ม

You may post questions / comments to the Discussion area of our website

www.neighborhoodlink.com/org/rtc2k5

E-mail: rtc2k5@gmail.com

Two New Lessons

Red Ant Eggs for Breakfast



Created by G.K. Lee for the RTC-TH REEPP

E-15

We collected the red weaver ant eggs in our backyard.

with unfamiliar scene in the illustrations. In some lessons, students saw themselves and some of the friends. This made the lesson more fun, interesting, and meaningful to them. Many would view the lesson over and over just to see themselves and their friends. But each time, they are also exposed to the English vocabulary. The repetition helps to reinforce the learning. And when a group of friends is having fun, there is the potential for students to teach back to each other.


Making Miang



Created by G.K. Lee for the RTC-TH REEPP

E-16 v2

We picked the tea leaves on our own farm

Potentially there are other benefits to this method. Students can also learn photography, digital photo editing, and other computer skills related to real jobs. 

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Ginseng Farming in Wisconsin



Greg taught English in China about 30 years ago. One of his students, Dr. Jiang is now a Wisconsin ginseng farmer and



businessman. He founded Marathon Ginseng International Inc. based in Marathon, WI (a center of US ginseng production). He deals in both cultivated and wild ginseng. Sales are both US and international markets.

At first glance, medicine and farming seem worlds apart. Dr. Jiang has used his MD and a PhD in Physiology to make a bridge to farming ginseng. His research into ginseng (a traditional medicinal plant) gives



him unique insights to ginseng farming.

He started off as a buyer / distributor. The supply varies from year to year, and pretty soon he began to hedge his bet by getting into growing or producing ginseng to have a little supply security for his fledgling business.

This summer, he and some associates created a new 4-acre ginseng garden.



All photos for this article courtesy of Marathon Ginseng International, Inc.

Setting up a new ginseng garden requires plowing and grading the field for proper drainage. Posts are set to rig the shade system. The photo on the right shows a new 4-acre garden being prepared. Posts are laid out at the proper spacing. A hydraulic ram pounds the posts into place. The post height must allow a tractor to maintain the beds under the shade cloth.



Each post is manually lifted into position. The hydraulic ram pounds the post into the soil.



The raised beds are created to assure proper drainage. The beds are scraped to prepare for seeding.



The beds are scrapped by tractor. Low spots in the bed not scrapped by the tractor must be hand raked before seeding the beds. This opens the soil to receive the seeds.

Another tractor with the seed drill does the seeding of



beds. Ginseng seeds in the white hoppers are gravity fed through flexible plastic tubing and drop to the bed surface. The seed drill doesn't actually plant the seeds in the soil. The seeds sit on the soil loosened soil surface. Mulch covers the seeded beds to protect them





From wind, rain, and birds. They will germinate sometime next Spring. The new rootlets penetrate the soil and the plants begin to grow.



A special machine carries and distributes straw to cover the seeded raised ginseng beds.



It takes 2 passes for the machine to lay down mulch between a long row of posts.



The shade cloth is yet to be installed over the new ginseng garden by the time we were going to press with this report. It will be 3 years before these beds might be ready for harvest. The fate of the crop rests with the weather during that time. Rain is one of the major concerns of ginseng farmers. Soil diseases and seed eating critters are another. Once planted, a ginseng farmer can only hope for a good crop or market conditions shift to paying higher prices for a short supply.

Wild Ginseng to Hedge His Bet



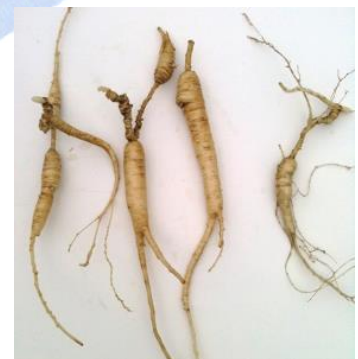
A major prize wild ginseng plant

Wisconsin protects wild ginseng by licensing its collection. It also prohibits gathering wild ginseng from public lands. The hope is to make the supply of wild ginseng sustainable. Some people will plant ginseng in the forested sections of their farms and let it grow in “wild” conditions. However, in such the “wild”, the plants and berries are at the mercy not only of the weather, but many animals that love to eat the berries. To add to the complexity, several other plants in the forest tend to resemble ginseng. And planting it in your own forested land does guarantee you can find the ginseng you planted. It is still a hide-and-go seek process to find these plants 3-5 years later.

US ginseng is a different species from Asian ginseng. Wild ginseng is the “organic” produce equivalent to cultivated ginseng. It is highly prized as being more natural and thus of higher quality than the cultivated ginseng. Many of the top wild plants are several decades old (some approaching the century mark). These are mounted in special display cases and sold as valuable collector’s pieces which may never be consumed. As with any high end product, presentation is everything to the collectors. To learn more, please visit <http://www.marathonginseng.com/Store/WildMountain.php>



Buying wild ginseng from a ginseng hunter



Wild ginseng 5-8 years old



Marathon Ginseng International, Inc. sells both cultivated and wild American Ginseng from Wisconsin. These are highly valued products in both the US and overseas markets (esp. in PR /China). The quality of Wisconsin ginseng is enhanced by strict state regulations monitoring chemical contamination of ginseng.



Cultivated ginseng 4 years old.



A CCTV (Chinese Central TV) documentary film crew embarked on telling the story of ginseng. They selected Marathon Ginseng Int'l Inc. for telling the segment of US ginseng farming.

The documentary covered ginseng growing in China, South Korea, and the US. The 4 –part series aired in China in mid-August. Even before the documentary, many VIP visitors from China came to visit Marathon Ginseng's offices and toured the farms.

Like all farmers the world over, weather can be a friend or foe. Last year there was too much rain, so there was a smaller harvest. This year, they may have an early and long winter. That may create another shortfall in supply. This means a rise in prices. But the short supply also means there will be less seed for planting next year. 🌐



Planting New S.E.E.D.S. in ECE



I have always advocated that “Teachers should be students; students should be teachers.” This is came true as some former students from my classes went on to become teachers. One of these students has now moved events to a new level. As a young adult, she experienced and recognized the power of my teaching methods both in and out of the classroom.

Now, more than 7 years later, in her Early Childhood Education (ECE) environment, she sees a need to adapt my methods to ECE classroom. This is where she has decided to apply her

cognitive psychology training. It is her effort to make the world a better place.

Natalie Zartarian is spearheading the Sustainable Early Education Development System (S.E.E.D.S.) program. This is a collaborative effort. She has insights to ECE student needs and pre-school and elementary education issues.

I am involved for 3 main purposes:

SEEDS
Sustainable Early Education Development System

Saturday, August 23, 2014

Who and What is SEEDS

SEEDS (Sustainable Early Education Development System) is an innovative program developed by Gregory Lee and Natalie Zartarian. Mr. Lee, has decades of experience in teaching at the college level. He has taught in the US and overseas. He values a student centered educational approach. Ms. Zartarian has worked with preschool through high-school students. She has worked as a teacher, coordinator and program/curriculum developer. Both Mr. Lee and Ms. Zartarian understand the need for an independent, interactive and multifaceted learning system. They use STEAM - Science, Technology, Engineering, Art and Math, to help provide to learn familiar and advanced

SEEDS integrates the concepts of STEAM into all its curriculum

<http://S.E.E.D.S.edu.blogspot.com/2014/08/blog-post.html>

S.E.E.D.S.

Creating opportunities for families and children to have fun while learning

SEEDS Education

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be a co-author and co-founder of S.E.E.D.S.; 2) assure the intent of my original work is retained and conveyed accurately; 3) be available to brainstorm and to be a sounding board for her ideas and adaptations. This is an exciting effort involving the next generation of teachers and students. This helps assure that all our previous community-based education and geography efforts won't fade away.

She proposed the unique integration of my Community-based Education (C-bE) model, my Geographic Systems Model (GSM), the STEAM (Science & Technology interpreted through Engineering & Art all based in Mathematical elements) curriculum, and Early Childhood Education (ECE). The lessons and activities would be referenced to the standards of the National Association for the Education

<p>Community-based Education Education of, by and for the people</p> <p>C-bE</p>	<p>Location Scale Time</p> <p>GSM</p>	<p>SCIENCE Mathematics Technology Engineering Art</p> <p>STEAM</p>	<p>Early Childhood Education Fun While Learning to Keep Curiosity Alive</p> <p>ECE Project-based Learning</p>	<p>naeyc® Standards of the National Association for the Education of Young Children</p>
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of Young Children (NAEYC). Her vision is to create S.E.E.D.S. as the early childhood education curricular model to better prepare students as life-long learners. This innovative, out of the box, education approach makes better use of available human resources. It is unique because it empowers parents and teachers to nurture, foster, protect and enrich children's innate curiosity and play activities. This will help establish systematic learning habits often relegated to later years of education.



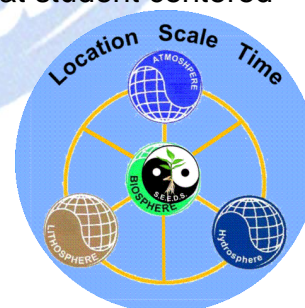
S.E.E.D.S.-PLANT

She proposed the integration of my existing C-bE model for S.E.E.D.S.. C-bE is based on a concept I called P.L.A.N.T. (Personal Learning and Natural Teaching). I based this on the teaching and learning that took place BEFORE the time of formal educational institutions. The first teachers for all children are their parents. Most parents are NOT credentialed teachers. Teachers are people with knowledge and skills who cared to shared with others. Children are natural learning machines. They are driven by curiosity and learn by playing.

This is the original "student-centered" education program from the beginning of time. For adults, the word play is defined as "an activity for enjoyment and recreation rather than a serious or practical purpose." For a child, nothing could be farther from the truth. When a child "plays", the child's brain is undergoing physiological development. Neural pathways are being created and reinforced. Developing the brain is critical to the child's survival. By age 3, a child's brain is 80% of the adult volume but with nearly 2 X the number of synapses of an adult. From an ECE perspective, play is a serious and practical mechanism for learning.

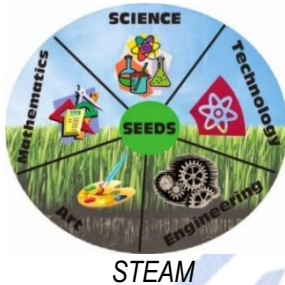
For most children, this early stage of development is haphazard at best. S.E.E.D.S. gives parents and teachers the freedom to choose a more systematic and effective approach to ECE. We use PLANT to get people to learn how they learn best and to have fun while learning. We want people to become their own best teacher and a life-long learner. Parents can foster their child's learning by encouraging their curiosity and learning through play. Also, C-bE literally moves teaching outside the box of the classroom to outdoors into the community using project-based learning. Students have the opportunity to connect classroom academics with the natural physical world. Engaging students as active community members helps sustain communities.

Natalie wrote the blog "Seven Steps to Creating a Productive Project Based Environment" (<http://S.E.E.D.S.edu.blogspot.com/2014/08/seven-steps-to-creating-productive.html>.) In Step 7 of her article, Natalie points out that student centered learning can be very chaotic for teachers / parents due to the interconnected nature of the learning topics. In S.E.E.D.S., we teach people to use the Geographic Systems Model (GSM) to systematically view the interrelationships of all life, physical, and social sciences to each other. The model also uses the concepts of Location, Scale, and Time to study the distribution of phenomena on Earth. Using this kind of systematic integrated frame work facilitates the lesson / activity planning. Teachers and parents can use the GSM to conceptually map the relationships of the topics of student interest relative the academic and real worlds. No one teacher may be completely comfortable handling all possible topics requested by the students. However, most teachers should be able to handle a number of topics. Since students outnumber



The S.E.E.D.S. Geographic Systems Model

teachers, it is highly probable that a student may be more curious about a topic not selected by other students and the teacher. Knowing this, parents can use the same approach to facilitate their child's free choice. They can use the GSM supplement the teacher's lesson with independent study at home or outside of school for their child. This is the beauty of teaching the learning process. Learner's are empowered to use their freedom of choice to explore and learn without being constrained by the curriculum, the school, the teacher, etc.

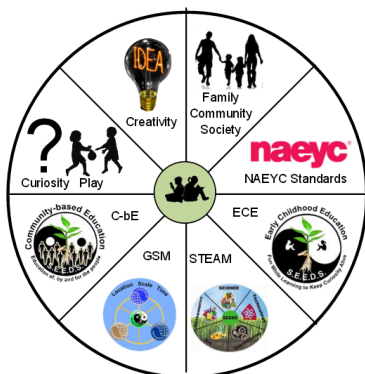


STEM (Science, Technology, Engineering, and Mathematics) curriculum was a response to the need for more graduates in those field. Many information age jobs are linked to these majors. STEAM (Science & Technology interpreted through Engineering & Art all based in Mathematical elements) expanded STEM to include the "Arts" Here, "arts" also includes language arts, digital arts, as well as the more traditional drawing, painting, photography, performing arts, etc.

The teacher can now select lesson / activity content from the STEAM inventory appropriate to grade levels of the students. With due diligence (and if required), teachers can match the STEAM content to cover the corresponding items in the Core Curriculum for a given grade level. Conforming to the Core Curriculum may vary by State, County, and local school district policy. Teachers may have more or less authority to adjust the Core Curriculum depending on local school administrations.

On the other hand, if the teacher did not select a topic of interest to an individual student, the parents can use the same S.E.E.D.S. method as the teacher. Parents are now empowered to supplement the school curriculum or lesson / activities at home. S.E.E.D.S. gives parents and students the freedom of choice to NOT be limited by the Core Curriculum. [Note: Many teachers are contractually bound to deliver the Core Curriculum regardless of its ineffectiveness. They can lose their job for failing to teach ONLY the Core Curriculum. They have little or no choice.]

Research shows when relevant graphics are used with text retention of lesson materials can increase by as much as 60%. This is just one point of interest for keeping Arts integrated with lesson / activities. A recent study in New York City revealed school drop out rates were 5 X higher in schools without Arts programs. The high drop out rate contributes to higher crime rates in the city, higher incarceration rates, soaring police and prison budgets far greater than the cost of the Arts programs in schools. The benefits of more graduates is reflected in the economics of employment, tax revenues, property ownership, and a more vibrant and more sustainable community.








The diagram on the left shows S.E.E.D.S. applied to ECE. The student (child) is at the center. The formal S.E.E.D.S. components are the foundation (bottom) of the diagram (e.g. C-bE, GSM, STEAM, & ECE). The student resources are in the upper sections (e.g. curiosity, play, creativity, and the family, community, and society). The parents and teachers facilitate the learning by utilizing the resources to make learning fun, to identify the child's learning style, and start the child on the path to life-long learning. All of this is

driven by the child's curiosity. The parents and teachers implement the curricular content using play in a flexible project-based learning format.

Parents and students do not need education institutional bureaucratic approval to implement S.E.E.D.S.. At the grassroots level, freedom of choice is the driving power behind S.E.E.D.S.. The goal is NOT to have S.E.E.D.S. adopted by schools. That requires going head to head with the powers that be and all those with a vested interest in the education money-go-round. S.E.E.D.S. is all about empowering people to take on the responsibility for their education. S.E.E.D.S. is about NOT limiting your education by the status quo, the existing schools, curriculum, or the teachers.

The summary table below shows S.E.E.D.S. in relation to the general educational sequence in modern society. The idea is to implement S.E.E.D.S. as early as possible in a person's life. Parents can use S.E.E.D.S. before their children are enrolled in pre-school. S.E.E.D.S. is a free choice option to supplement the formal education system. [Of course, teachers and school officials are also free to adopt and implement S.E.E.D.S.. We just think this is too arduous and bureaucratic path of us at this time.]

				
Pre-School	K-6	7-12	College/University	Work
S.E.E.D.S.				
<ul style="list-style-type: none"> • Student curiosity should drive the teaching / learning process. • Students and teachers should be engaged in highly interactive learning activities to facilitate the teaching / learning process • Play and having fun are integral to learning and retaining lesson concepts and content • Project-based learning integrates concepts and content in tangible and meaningful ways 		<p>S.E.E.D.S. empowered students students are set on a path of life-long learning guided by their growing curiosity and enjoyment of the learning process. Their learning is not limited by the school, curriculum, teacher, textbook or any other external educational entity. Parents and students no longer have to sit / wait / demand / fight for education programs to serve their learning needs. Don't waste the time or money; use S.E.E.D.S. to enhance your learning.</p>		<p>S.E.E.D.S. empowered workers contribute to innovation and creativity in the workplace. They function as productive workers as life-long learning enables them to advance their knowledge and skills to keep pace with changes in the technology, work place, and world.</p>
C-bE	GSM	STEAM	ECE	
Non-traditional teaching and learning method	Model of knowledge relationships	Academic content to support S.E.E.D.S.	Early Childhood Education	

S.E.E.D.S. is a grassroots effort to empower people to gain knowledge and skills. The most important S.E.E.D.S. lessons are for people to learn how they learn best and to have fun doing it. Mr. Lee's cyclic saying is "Learn to play, play to learn." Once they know this, S.E.E.D.S. encourages people to become life-long learners. Mr. Lee's cyclic saying is "Live to learn, learn to live." 🌐

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