The Philosophy of Kids for Space

By Lonnie Jones Schorer and Janet Ivey

An essential part of opening new frontiers is getting people interested and involved in the incremental steps of the planning process. Although there is historic precedent, we cannot just round people up and ship them off to new worlds. A period of education, preparation, and planning, as well as the desire to go, is an essential prerequisite. But a harsh evaluation, expressed by students ages 5-18, is that they do not feel they have a part in the planning process for the opening of the space frontier. They assume that exploring and accessing space is the exclusive prerogative of an elite few. To lay the groundwork and make the space frontier a tangible reality for future generations of space travelers, those who may be tomorrow's space pioneers should already be involved in contributing their visions so that they will understand and believe in pursuing the goals. If they become aware that there will be opportunities and that not everyone involved will be a rocket scientist, when the time comes to establish space communities, a broad spectrum of the populace, representing all trades and professions, will already be educated and prepared to participate.

Younger children's imaginative and futuristic visions of space are more inspired by Star Trek, Star Wars, Space Jam, the Jetsons, Phil of the Future, Daul's *Charlie and the Great Glass Elevator*, Scholastic's *Magic School Bus*, Battlestar Galactica, and a wide selection of other-worldly video games than by the daring accomplishments of the Gemini and Apollo missions that took place long before they were born. Space, for elementary school students, is an innovative, sci-fi, warp speed fantasy, filled with aliens, galactic wars, laser beams, and interstellar, intergalactic travel via teleportation and faster-than-speed-of-light starships.

Fantasy to reality, how do we impact students' perspectives and offer them the tools and competency to walk through the doors of opportunity? Classroom lectures impart information. Is any of it transformational? Do students remember what they heard? Which educational approach best involves and prepares students for a committed future? *Janet's Planet takes Kids to Space* supports a hands-on, experiential learning approach to education. Ideas can drive dreams, but without structured groundwork based on real life experience, most young students have no idea how to integrate and apply what they've learned in order to push boundaries beyond the requirements of a standard curriculum.

Academia vs. Vocational: For years, brainy kids have been put on a college track, while those with lesser testing scores are encouraged to pursue a vocational track. Both tracks end up in the workplace.

- The Battelle Corporation exemplifies a corporation that combines the best elements of both tracks. Battelle partners with communities and supports strategies to engage kids in hands-on STEM projects. The teaching goal is to prepare kids for success.
- Two fourth grade teachers in MA have students set up a business plan to facilitate smooth running of the classroom. Students "rent" their desks, learn about overhead costs, keep personal ledgers of debits and credits, and take on the roles of marketing, banking and sales managers. Chances are these students will never forget business lessons learned in fourth grade!
- In March, the Kepler Space Institute (KSI) held a *Kids to Space* workshop. Student educational backgrounds were varied, from Montessori and public schools to Boys and Girls Club and subsidized housing groups. On a common plane provided by a hands-on activity that called upon imagination, students cooperated and excelled. And, hopefully they learned that the future is not the prerogative of an elite few.

So how do we inspire students to become active participants in their tomorrow?

First we must look at how we currently approach science and give it context, give it meaning, give it a hands on relevancy that makes science significant.

Too often, the way science is taught obliterates any chance of inspiring students to sit up in their chairs and say, "*Wow, that's science?"* We rob science education of life when we focus solely on results and seek to train students to solve problems and recite facts without transporting them beyond their desktops.

Science is the process that takes us from confusion to understanding in a manner that is precise and reliable. To be able to follow the steps of the scientific method and ultimately come to conclusions that have validity and meaning is one of the most important of life's experiences.

We have seen children's eyes light up as I have told them about the solar system and microgravity. After one presentation about the solar system a second grader asked me, "*Did we really go into space today?*" My hope is that something of the majesty of the solar system felt real and vibrant to him. I pray he went home and did his homework.

For us, science is a language of hope and inspiration, the greatest of all adventure stories; we need to communicate the drama of science within a framework that ignites imagination and instills connection to life, to the world, and to the cosmos.

So how do we get kids to dream beyond their desktops? We teach the WHY before teaching the little what. We teach context because CONTEXT leads to CURIOSITY.

****

About the Authors

Lonnie Jones Schorer: Lonnie Schorer has a BA in Russian and a Master's of Architecture degree. While living overseas and in the United States in support of her husband's State Department career, she raised three children, worked as staffer for the Lillehammer and Atlanta Olympics, founded a UNESCO World Heritage Site graduate program in Norway, and was head of design for a new concept 43,000-ton residential ship, the *World of ResidenSea*. As a pilot and member of the Explorers Club, her interest in flight and space led to classroom and workshop programs to encourage students to pursue STEM careers.

Janet Ivey: Janet Ivey has won 11 Regional Emmys, 5 Gracie Allen Awards, and a STEM Florida Award for her Planet TV interstitials and programs. In 2011, at the Huntsville, AL International Space Development Conference, Janet gave a presentation about the importance of informal science education on behalf of *Janet's Planet Takes Kids to Space.* Follow Janet's Daily Science updates on Facebook: Janet's Planet, Twitter: JPJanetsPlanet and subscribe to Janet's blog, at janetsplanetspacelog.blogspot.com.

Editor's Note: Dynamic and exciting people make life richer. When they are educators of children it makes them very special. Lonnie Schorer and Janet Ivey listen to children and encourage them to become engaged for their own futures via curiosity and scientific inquiry into the wonders and adventures of Space. Over the past eight years Lonnie Schorer has written outstanding children's Space science textbooks for kids and educators. It's impossible to enumerate all of Lonnie's talents and achievements; very simply, I consider her to be the 21st Century Amelia Earhart. It's an honor to have her as a member of our Journal of Space Philosophy Board of Editors.

Janet Ivey is an entertainment treasure of Nashville. She is teacher and science mentor through her *Janet's Planet* TV program which airs nationwide on more than 100 public television stations. Encouraging kids to stand in their magnificence by investigating and understanding the world around them is one of many reasons that so many admire Janet's work

Together Lonnie and Janet are attempting to put Newton's 2nd law of motion into action by creating momentum in math, science, engineering, and space education through accelerating the mass and velocity of learning with innovative approaches. *Bob Krone, PhD.*

****