The Big Bang: In the beginning there was fun

One of my many journeys as a teacher was to draw some connections between my Montessori training and some of the ideas around IE. They were not easy ones, let me tell you. But I was bound and determined to do so and quite stubborn as well. I did not want to abandon my first pedagogy for another too willingly—having no pedagogy before Montessori and drifting as many teachers do to discover one, if they are ever likely to.

One point of connection I see between IE and Montessori is with--what we Montessorians refer to as--"The Great Lessons". These lessons, devoid of heroes and villains describe the scientific processes that came to form some of the biggest pillars to our understanding of the evolution of people. In the order they should be delivered in a Montessori program they are:

•First Great Lesson - Coming of the Universe and the Earth

•Second Great Lesson - Coming of Life

•Third Great Lesson - Coming of Human Beings

•Fourth Great Lesson - Communication in Signs

•Fifth Great Lesson - The Story of Numbers

The Great Stories can be found here:

http://www.missbarbara.net/greatlessons.html

My focus here will be on the First Great Lesson: Coming of the Universe and the Earth. The story does a fine job in setting the students up for the seconds before the Big Bang. This connects wonderfully with **change of context** in IE. Ideally, I use a pitch black space, like a gym. I have a rather large spot light ready to be plugged in and a blown-up balloon full of confetti ready to be popped. The coordination of the light being plugged in and the balloon popping just after can be a bit tricky but the effect is memorable. Suddenly the dark is illuminated and from the light is emitted many things. While this is going on I am drawing on the dramatic influence of the dark, the silence that fills the space. As the Big Bang occurs my students become aware of the fact that matter and energy are created.

After this is done I have the class gather into a group and we try to squeeze together as tight as we can. I get them to describe this feeling of pressure and heat. We then reenact the Big Bang and spread ourselves in violent spasms around the gym. We then gather and talk about how the matter travelled

out at different speeds and some collided with each other. Then we do it again and I assign roles of matter to all students and give them the kinetic energy. I tell them which coloured lines on the gym floor they can travel on and then say to them when matter meets matter they will fuse or bounce off each other. This builds on the next phase of the creation of celestial bodies. In further lessons I will explain some of the types of matter that the universe is comprised of and how energy plays a role in the formation and function of the universe. Within these activities I engage many **somatic** (body-based) tools as well as **rhythm & pattern**, **games & drama.**

Another cool site to check out regarding this:

https://www.bighistoryproject.com/bhplive

As we continue with this study I will introduce them to the Greek and Roman Gods, create masks inspired by the planets and ask students to dramatize their relationship to each other, host a "planet Olympics" and also check out other creation stories, like *How Raven stole the Sun*, the Haida story of creation.

I have briefly sketched this unit out in the following Brainstorming Chart. Have a look. What would you add, subtract, make clearer?

Romantic Imaginative Education Brainstorming Chart: Solar System/Stars and Planets, Grade 3, Earth Science

(The Cognitive tools of Literacy)