

# Model the Masters:

## *How Copying Great Scientists can Improve Elementary Educators*

Dates of Course: (TBD)

Instructor: Jane Powel

### Course Description

This professional development course expects a great deal from its participants. Teachers who work with young children occupy a huge percentage of their lifetimes and wield tremendous power and influence. A teacher charged with the education of a 21<sup>st</sup> century citizen requires great communication skills, vision, empathy, literacy, creativity, and logic. This course will not expect teachers to “reinvent the wheel” for a new millennium. Instead, it will not only allow, but will actually **encourage copying** master scientists to elevate teaching professionals to a higher standard which will serve all children more effectively.

### Course Goal

This course is designed to instill confidence, creativity, and logic into each teacher of young children, so that they may create differentiated lessons that meet the cognitive and affective needs of all their students based on the behaviors of outstanding scientific thinkers throughout history.

### Course Objectives

Student will be able to:

- defend the use of the 6 creative behaviors in historical discoveries
- illustrate the prevalence of paradox and duality in the universe
- describe the connection between copying and creativity
- inextricably link the young child and the scientist
- defend the use of more visual learning in the classroom
- defend the use of 3-dimensional activities as superior to 2-D for young children
- evaluate the pros and cons of using model organisms in scientific research
- problem-solve for elementary teachers who want to do more science in their classrooms
- incorporate creative behaviors and experiments of particular scientists into their curriculum
- evaluate which critical thinking skills are most useful for 21<sup>st</sup> century students
- evaluate efficacy of virtual tools, animations and templates instruction of young children

- relate cognitive development of children with appropriateness of hands-on science labs
- evaluate pros and cons of modeling the masters for a particular student profile
- defend placing science at the center of the elementary school curriculum
- formulate his/her own template for interdisciplinary lesson creation including science

### A Bit about Your Instructor

Hello and welcome to "Model the Masters". This is a course designed to elicit deeply creative and intellectual responses from those who seek to improve their teaching of children, ages 4-11.

My name is Jane Powel and I have been teaching professionally since 1974. I have a Bachelor's Degree in Elementary Education N-6, from Syracuse University and a Master's Degree in Special Education K-12, from Adelphi University. I began teaching grades 2 and 3 in the Garden City Park School, but left after 3 years to give birth to twins. Two more sons followed shortly thereafter.

Starting my own educational consulting firm, Omnilearn Corp., afforded me the flexibility to pursue my career as well as parent my children. Over the years, I have developed programs for gifted children in Roslyn and Hicksville, led biotechnology workshops for Pomo Indians in Northern California, taught science to 9th grade students with Asperger's Syndrome at NYU, and provided professional development courses for teachers in NYC, LI and CA.

The inspiration for this course came from my daily experiences as the Education Manager at the Dolan DNA Learning Center at Cold Spring Harbor Laboratory. Watching Nobel Laureates in action is incredibly exciting! I still keep in touch with James Watson and numerous other scientists to bridge the gap between lab bench and classroom. The *Fun with DNA* and *World of Enzymes* Science Camps I developed in 1991 are still going strong!

I believe by walking in the footsteps of geniuses, one can learn a great deal not only about their discoveries, but about the creativity and intelligence locked within oneself. Modeling greatness of intellect for young students is not only a wonderful tool for any teacher, but it is also quite thrilling!

### NYS Standards Addressed

(ELA) 1.1, 1.2, 2.1, 2.2, 3.1, 3.2

(MST) 1.1, 1.2, 1.3, 2.1, 3.2, 3.4, 3.6, 3.7, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2 (all of standard 4 Science depending on topics chosen for lesson plans)

(SS) 1.3, 2.1, 2.2, 2.3

(Health) 1.1

(Careers) 1.1, 2.1, 3.2

(Art) 2.1, 2.2, 3.3, 4.4

## Contact Information

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## Prerequisite Skills/Requirements

- Facility with Microsoft Word processing
- Internet and email access
- Ability to upload and download files

## Required Software:

- Microsoft Office 2003 or higher applications,
- Adobe Flashplayer 8 or higher
- Adobe Reader
- Windows Media Player/Real Player or Quick Time
- Moodle online software (<http://moodle.nyit.edu>)

## Recommendation for In-Service credit

- A student who has satisfactorily completed all assignments (achieving a 3-4 on the rubrics)
- and actively participated throughout the course (logged in 3 days per week **and** responded *meaningfully* to required number of peers)
- will be recommended for inservice credit.
- A student who violates the academic honesty policy will not be recommended for credit.

This 15 hr. course is worth one (1) credit.