PBS TeacherLine New York

online solutions for teacher professional development

SCIENCE

SCIENCE SPRING & SUMMER COURSE LISTINGS

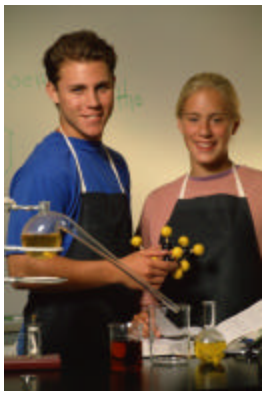
SCIE120: Scientific Inquiry and Field Work (Grades 6-8): Inquiring young minds can tackle problem solving successfully. Keep your students engaged by incorporating current technology into your science curriculum. Visit Web sites that enable students to collect and analyze data using online equipment and learn high-tech strategies that allow them to record and analyze information, investigate the results, and share their findings. Then, design a unit plan for an ecosystem field trip that incorporates what you've learned. (30 hours: Spring)

SCIE125: Fostering Cooperative Learning, Inquiry, and Critical Thinking in Elementary Science (Grades 1-4): Learn to meet national science standards by helping students develop the skills necessary to analyze ideas, think critically, and communicate clearly. Create lessons and activities that support collaboration, inquiry, and critical thinking. (30 hours: Spring)

SCIE130: Fostering Collaboration, Inquiry, and Critical Thinking in Middle School Science (Grades 5-8): Use technology-enhanced critical thinking and cooperative learning strategies to encourage middle school science students to ask questions, collaborate with others, and explore and evaluate data. (30 hours: Summer)

SCIE502 Science and the Living World (Grades K-4): A topic immersion course on Teaching Elementary Life Science. Explore the essential question of how to use processes of scientific inquiry to learn and teach about the living world. Examine the characteristics common to all organisms and learn techniques to surface your students' prior knowledge and understanding. (30 hours: Summer)

SCIE508 Ecosystems and Human Impact (Grades K-4): A topic immersion course on Teaching Elementary Life Science. Examine the complex interactions of living and nonliving things that comprise an ecosystem. Explore a range of effective questioning techniques and discussion strategies for the classroom that can provide a context for understanding the nature of human impact on ecosystems. (30 hours: Spring)



SCIE520 Teaching High School Biology (Grades 9-12): Learn inquiry-based approaches to teaching standards-based science topics, including genetics, evolution, and cell biology. Gain practice using multimedia to explore novel learning environments and methodologies that foster student interest, involve them in the research process, advance their critical thinking skills, and develop their conceptual understanding. (45 hours: Spring)

SCIE532: Motion and Forces in Your World (Grades K-4): A topic immersion course on Teaching Elementary Physical Science. Look at examples of motion in the world to understand how and why things move. Explore concepts of motion, force, speed and acceleration, and investigate ways for your students to identify and build upon prior knowledge. (30 hours: Summer)

SCIE536: Understanding Properties and Structures (Grades K-4): A topic immersion course on Teaching Elementary Physical Science. Leverage the power of the real-world context for physical science learning. In this course you'll investigate the physical properties of objects and how their structures affect their response to forces. You'll complete the course prepared to use prediction and testing as a learning tool and assess learning in an ongoing manner. (30 hours: Spring)

SCIE540 Teaching Middle School Physical Science (Grades 5-8): Deepen your understanding of the science concepts needed to teach standards-based curricula in middle school. Increase your content knowledge of physical science topics of energy transfer, light and waves, heat transfer, and density and solubility. Learn methods and metacognitive strategies for learning and teaching, including scientific reasoning, prediction, and abstract and critical thinking. (45 hours: Spring)

SCIE550 Teaching High School Physical Science (Grades 9-12): Learn inquiry-based methods and strategies to teaching the standards-based science topics that teachers and students find most challenging, including atomic and molecular structure, chemical reactions, motions and forces, and the electromagnetic spectrum. Use multimedia to explore novel learning environments and methodologies that foster student interest. (45 hours: Spring)

SCIE562 Introduction to the Earth System(Grades 5-12): A topic immersion course on Teaching Earth and Space Science Explore the key areas of content and methodology for teaching earth and space science effectively. Look at Earth as a system and examine how this system functions to create the physical world around us. Review Earth system science in the context of research about how people learn and inquiry-based instructional models. (30 hours: Summer)

SCIE568 Weather and Climate (Grades 5-12): A topic immersion course on Teaching Earth and Space Science Examine the causes of weather and explore technological advances to monitor weather. Consider the impact of human activity on climate change. (30 hours: Spring)

Spring Semester Begins March 23rd
Registrations must be received by March 13th

Summer Semester Begins June 22nd
Registrations must be received by June 12th

Register online at: www.thinkbright.org/teacherline
For more information call: (716) 845-7000 ex 360

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