

**Presentations by William F. McComas**  
***Parks Family Professor of Science Education, University of Arkansas***  
*College of Education and Health Professions – PEAH 310*  
*Fayetteville, AR 72701*  
<http://www.scienceeducation.org>

**Esmaspäeval 28.mail kell 15.00- 19.00 Vanemuise 46-211 Seminar doktorantidele.**

***The New Science of Science Education: Considering Constructivism***

This presentation is an overview of what is happening in science education that is moving the field through cycles of crisis and reform to become a mature discipline with an exciting theoretical and practical base. The new science of science education is grounded in constructivist learning theory and a maturing understanding of the role of misconceptions and the contributions of philosophy of science in guiding instruction. This new base guides both educational research and classroom practice. This talk will focus on where science teaching has been and where it should be going guided by suggestions for *renewing* the science of science education.

***The 6 C's of Science: Defending the Teaching of Science Now and in the Future***

This talk will focus on the rationales for science education using a unique 6C model. This model suggests that there are a variety of reasons why the science has been included in the general education curriculum based on the idea that science content and process is poised to inform students who will become **Constructors, Critics, Consumers, Collaborators, Citizens and Connoisseurs** of science in the future.

**Teispäeval 29.mail kell 14.00- 15.30 Vanemuise 46-108 Loeng-seminar**

***The Myths of Science: Reconsidering What We Think We Know About How Science Works***

Most science teachers are fascinated by but generally unaware of the interaction of the major issues of the philosophy of science and science teaching and learning. This presentation offers an overview of the nature of science and how misconceptions regarding the philosophy of science impact science teaching and learning. In addition to exploring the definition of science, we will discuss common myths involving the nature of proof, the role of evidence, the value of falsification as a demarcation criterion, models of knowledge generation, the social dimension of science model building in science, and the fallacy of the single scientific method.

**Kolmapäeval 30.mail kell 15.00- 16.30 Vanemuise 46-211 ( doktorantide juhendajad, doktorandid) Vajalik eelregistreerimine annika.konsap@ut.ee**

**The place of the Nature of Science within PhD in education programme.**

Lisaks tutvustakse Arkansas ülikooli haridusvaldkona doktoriõppe programmi ülesehitust.

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William F. McComas, Ph.D. is the inaugural holder of the *Parks Family Endowed Professorship in Science Education* at the University of Arkansas following a career as a biology teacher in suburban Philadelphia and professorship at University of Southern California. He has earned BS degrees in biology and secondary education, MA degrees in biology and physical science and the PhD in Science Education from the University of Iowa. McComas is widely involved in many areas of science education. He has served on the boards of directors of the National Science Teachers Association (NSTA), the International History, Philosophy and Science Teaching Group (IHPST), the National Association of Biology Teachers (NABT) and the Association for Science Teacher Education (ASTE). He is a recipient of *the Outstanding Evolution Educator and Research in Biology Teaching* awards from NABT, the Ohaus award for *Innovations in College Science Teaching* and the ASTE *Outstanding Science Teacher Educator* award. He is interested in the improvement of laboratory instruction, evolution education, the intersection of the philosophy of science and science teaching, science for gifted students, and science instruction in museums and field sites. McComas was recently a Fulbright Fellow in residence at the Centre for the Advancement of Science and Mathematics Teaching and Learning (CASTeL) at Dublin City University in Ireland.

