

# DO YOU KNOW YOUR 3R's? RADIATION, RADIOACTIVITY & RADON

Golden, Colorado. June 27-29, 2017

## Class Schedule

### Tuesday, June 27th

8:00am Welcome; Introduction of 3R's/A Brief look at the Curriculum

#### **UNIT 1: WHAT IS RADIATION?**

8:15am 1-1, Have You Ever Been Exposed to Radiation?

8:30 1-2, Electromagnetic Radiation Spectrum

8:50 1-3, What Are the Sources of Ionizing Radiation?

10:00 A Little History of Ionizing Radiation

10:30 Break

10:45 Info:  $\alpha$ ,  $\beta$ , &  $\gamma$

11:00 1-4, I Can See Clearly Now!

11:45 Lunch

12:45pm 1-5, Keep Your Distance!

2:00 1-6, Shields Up!

2:45 Break

#### **UNIT 2: WHAT IS RADIOACTIVITY?**

3:00 *'A is for Atom'*

3:15 2-1, Do You Know Where Your Children Are?

4:15 Follow-up: Decay Series

### Wednesday, June 28th

8:00am Decay Series Review

8:15 2-2, Time After Time

8:45 Info: Uranium chemistry

9:00 2-3, Radioactivity in Earth

9:15 2-4, Radioactivity in Water

9:30 2-5, What is Your Personal Ionizing Radiation Dose?

10:00 Follow-up: Units; Safety & Ionizing Radiation (Tom Lehrer, too)

10:30 Break

#### **UNIT 3: WHAT IS RADON?**

10:45 3-1, Life Goes On!

11:00 Info: Radon and RDP; Equilibrium and Working Level

11:30 ***Radon: The Invisible Killer***

11:45 Lunch

12:45pm 3-2, Radon in Your Lungs

1:30 Follow-up: Epidemiology

2:00 Hexaflexagons

2:30 Break

2:45 Info: Radon Entry, Watras....

3:00 3-3, Radon: An "Uninvited" Guest

3:30 ***Radon: The Invisible Killer***

3:45 3-4, Trivia Challenge

4:00 Brainstorming use of curriculum and kits

4:15 Course evaluations, Graduation☺

**Thursday, June 29<sup>th</sup>** - 9:00am-12:00pm Field Trip - Denver Federal Center Nuclear Reactor