

Introducing

NAVIGATINGTM NUCLEAR



Energizing Our World

In collaboration with Discovery Education and
United States Department of Energy, Office of Nuclear Energy

Presented by:

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PROJECT OVERVIEW

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Our Goal

Through a multi-platform, multi-year education initiative, Navigating Nuclear will:



- **Clarify common misconceptions** surrounding nuclear science and explore its current and future role in technological applications
- **Build understanding** of and create value for nuclear science and technology
- **Inspire future careers** in the nuclear field – and the pursuit of higher education to achieve this goal

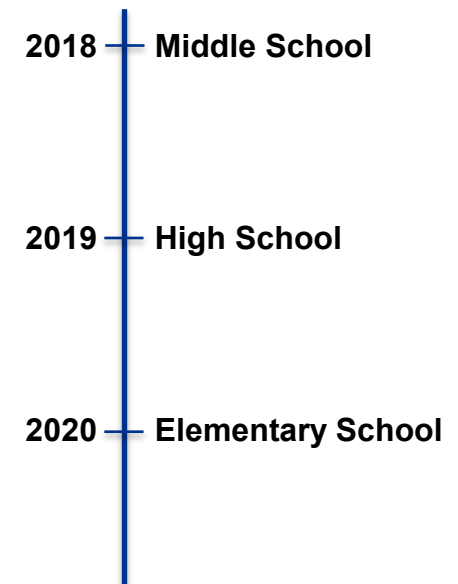
Project Timeline and Components

There are three Navigating Nuclear phases:

- **Middle School:** 2018 - 2019
- **High School:** 2019 - 2020
- **Elementary School:** 2020 - 2021

Project components include:

- **Inclusion in DE digital textbook**
- **Navigating Nuclear website**
- **Virtual Field Trip**



PROJECT COMPONENTS

navigatingnuclear.com

- All curriculum materials downloadable for free
- Access to past and current VFTs

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Explore NEW High School classroom resources



Curriculum

Lessons and STEM Project Starters

- Topics covered for middle school include:
 - **Nuclear Fusion and Fission**
 - **Nuclear Energy**
 - **Background Radiation**
 - **Radiopharmaceuticals**
- Topics covered for high school include:
 - **Radioactive Decay**
 - **Reactors of the Future**
 - **Radiation applications**
 - **Nuclear batteries**
 - **More to come...**
- All aligned to current science standards



Extending discussions around STEM applications beyond the classroom, Career Profiles feature professionals in the nuclear field and the impacts they have on the world around us.

- **Nuclear Researcher:** Dr. Sukesh Aghara – Associate Professor of Chemical Engineering; Director, Nuclear Engineering Program; Director, Integrated Nuclear Security and Safeguards Lab, University of Mass.
- **Mechanical Engineer:** Natalie McIntosh – Nuclear Fuels Engineer, Exelon Nuclear
- **Radiochemist:** Dr. M. Alex Brown – Chemist, Argonne National Laboratory



Virtual Field Trips

- Real-time 20-minute virtual event
- Highlight people and places that power our world
- Directly engage students and educators
- Available on-demand after premier

VFT 2018

- Premiered October 2018
 - Timed to coincide with Nuclear Science Week
 - Features Palo Verde Generating Station



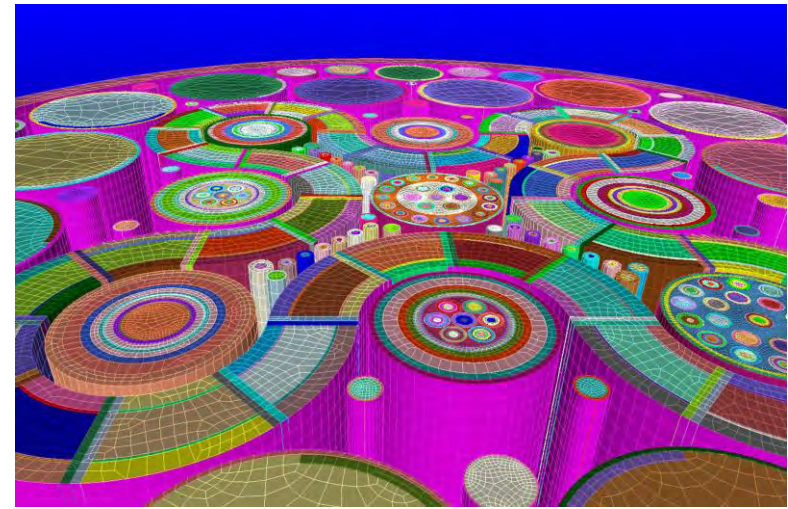
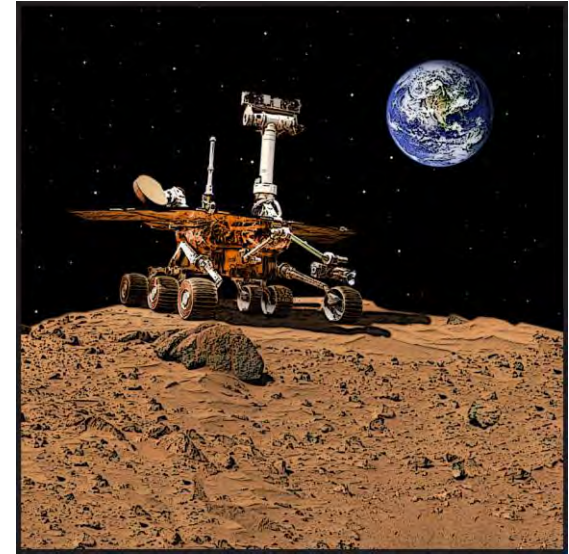
VFT 2020

- Premieres February 18, 2020
 - Timed to coincide with Engineers Week
 - Features Idaho National Laboratory



Explores:

- How the Advanced Test Reactor works
- Space Power Systems where Mars exploration power systems are built
- Hot Fuel Examination Facility examination of fuels of the future
- A virtual tour of the ATR core



NAVIGATING NUCLEAR AND OUTREACH

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Outreach Guidebook

Includes:

- Program overview
- Approaching schools
 - Who to contact
 - Sample emails and call scripts
- Ideas for activities
 - Classroom visits
 - Presentations
 - Career Fairs
 - Viewing parties



How to use the VFT?

Watch the VFT premiere with local students

- February 18, 2019 at 1 pm Eastern
- Pair up with a local school to watch the premiere live
- Or invite students to your facility
- Answer student questions
- Talk about your career
- Bring pizza!

OR

Get involved on social media

- Classrooms will tweet questions during the premiere
- Tweet back answers

Questions?

Project Leadership

Subject Matter Expert Team Lead

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 **ANS** Center for Nuclear Science
and Technology Information

