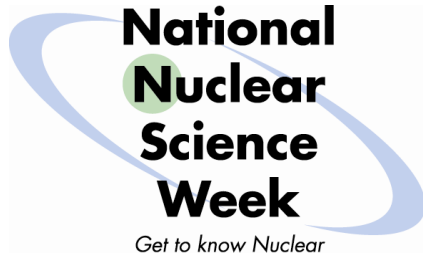


**National  
Nuclear  
Science  
Week**

*Get to know Nuclear*

**January 24-28, 2011**

**[www.NuclearScienceWeek.org](http://www.NuclearScienceWeek.org)**



# *Get To Know Nuclear*

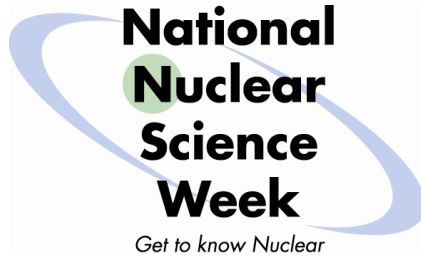
A national week-long celebration of all aspects of nuclear science

monday	tuesday	wednesday	thursday	friday
<b>Mo</b>	<b>Tu</b>	<b>We</b>	<b>Th</b>	<b>Fr</b>
[JANUARY]	[JANUARY]	[JANUARY]	[JANUARY]	[JANUARY]



Each day gives us a chance to learn and explore the different areas of nuclear science

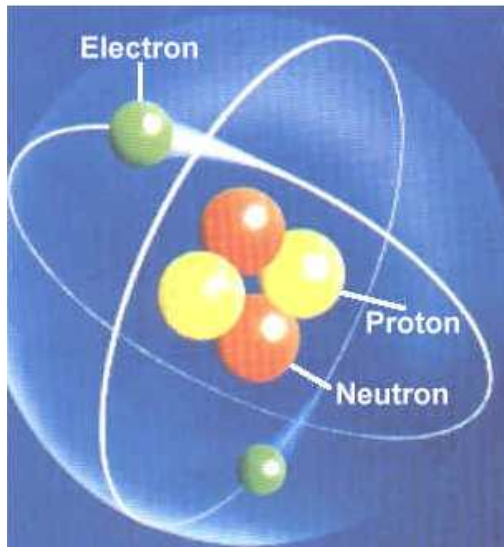
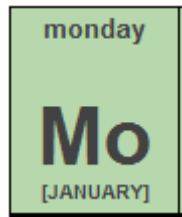
Let's look at some...



*Education:  
Learning more about nuclear*

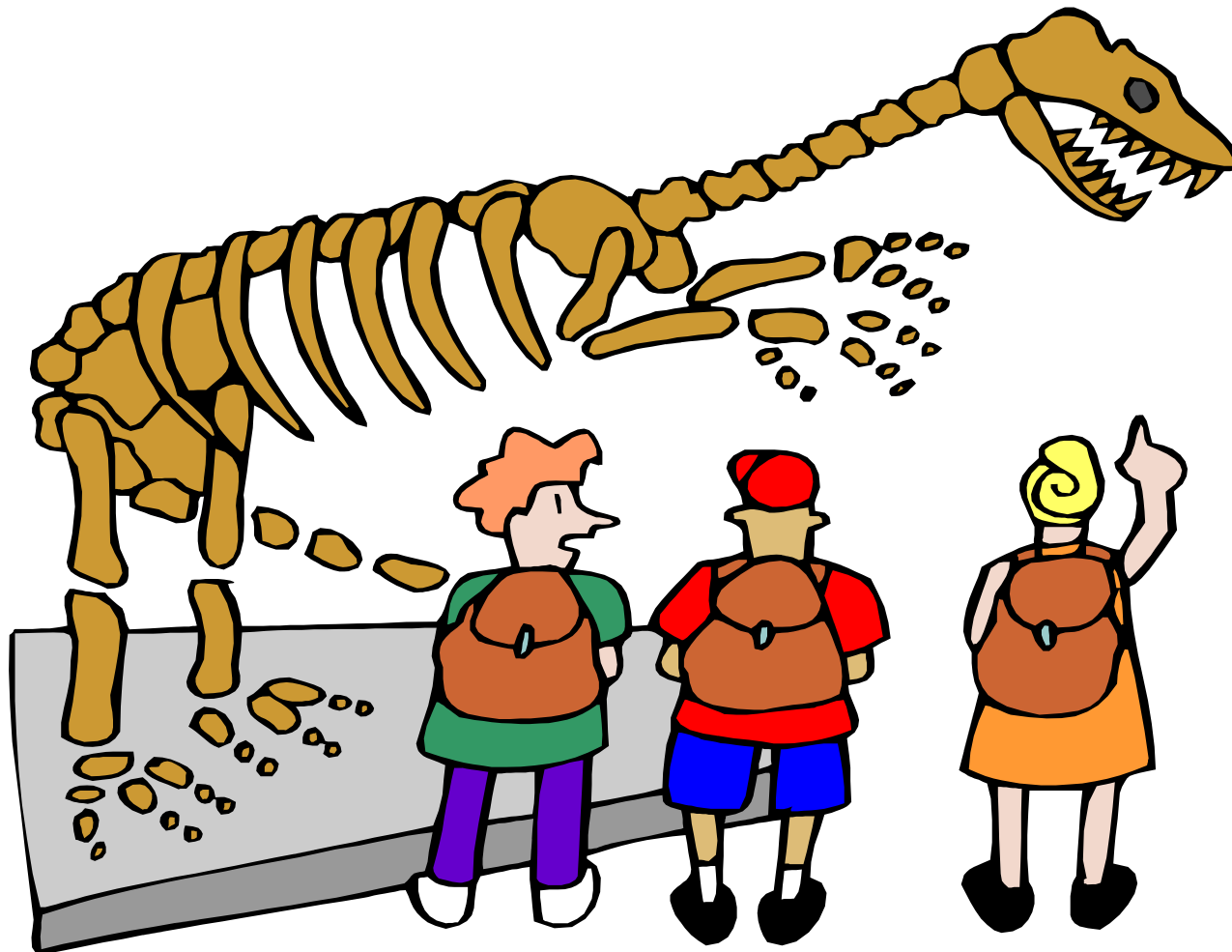
Nuclear science comprises many fields.  
Nuclear science all starts with the

**atom**

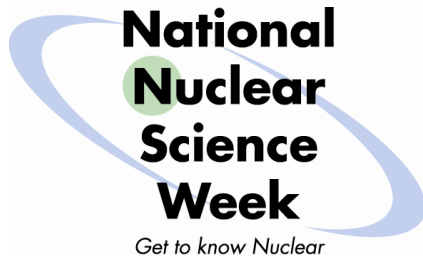


The atom, and its fundamental parts -  
protons and neutrons - is the bundle of  
energy that makes so much possible.

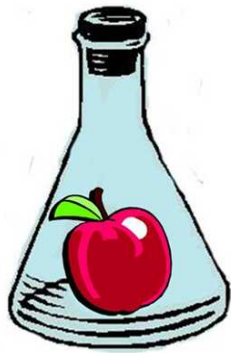
*Education:  
Nuclear science in archeology*



You can  
find out  
the age of  
this  
dinosaur  
using  
nuclear  
science.



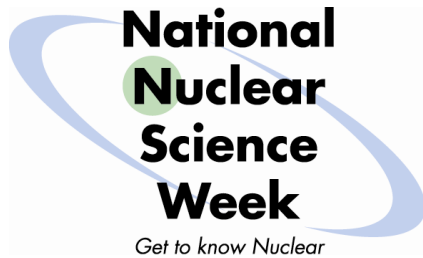
*Education:  
Science for a bright future*



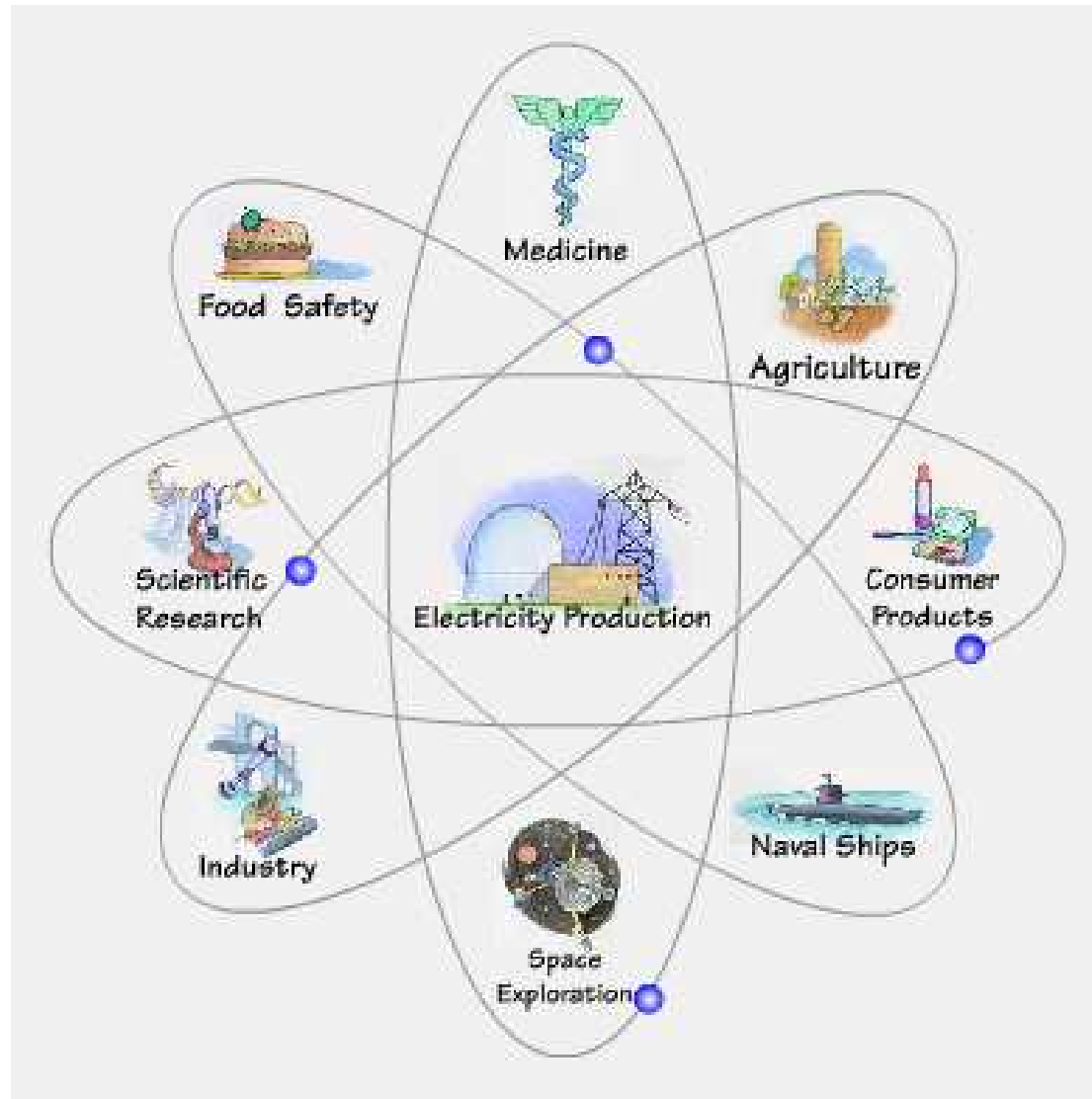
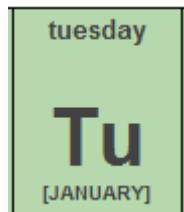
**Science Teaching**

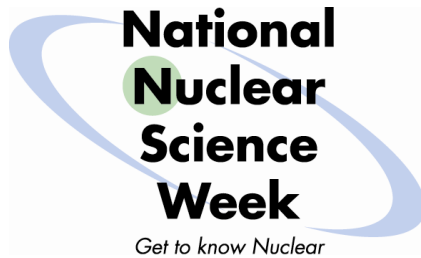
**Saluting science teachers!**





# *Careers and Jobs: Nuclear is a cool place to work*





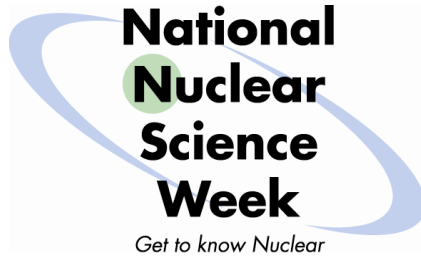
## *Careers and Jobs: Nuclear is a cool place to work*



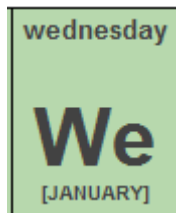
- Engineers
- Chemists
- Economist
- Biologist
- Business executive
- Communications
- Teacher
- ...and many more

**The future  
is yours!**

There are  
lots of  
opportunities  
to contribute  
to the future  
in a job in the  
nuclear field



## *Electric Power: Nuclear power is clean air energy*

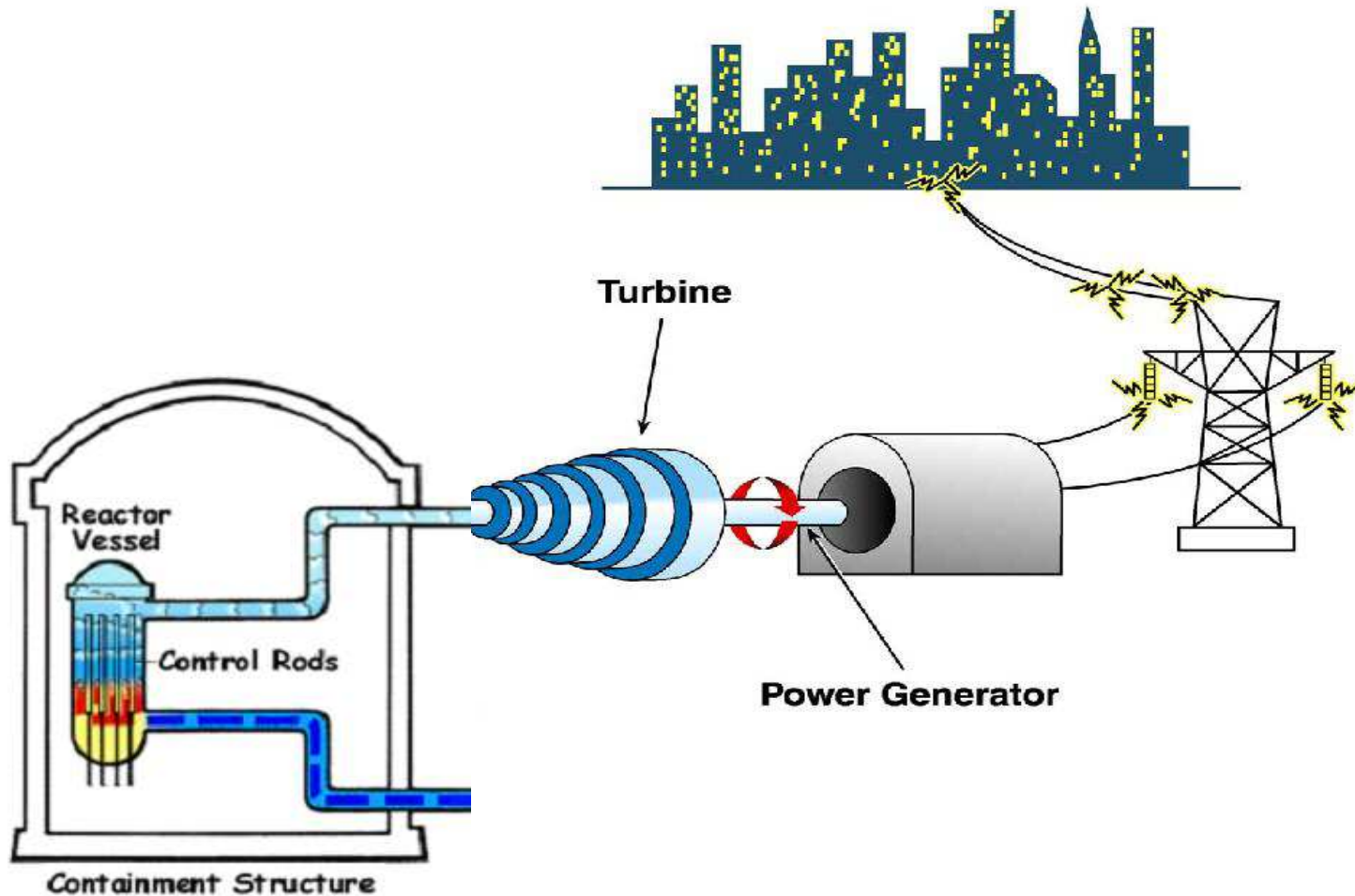


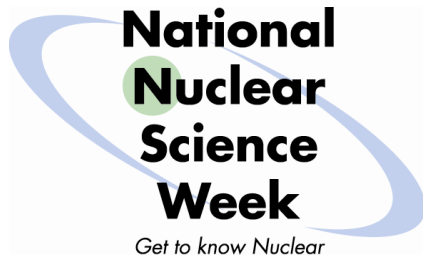
- Nuclear energy plants produce electricity
- Electricity is produced by
  - creating heat
  - that boils water
  - producing steam
  - steam turns turbines
  - the turbines create electricity
  - and the electricity is sent out on transmission lines
- The heat in a nuclear plant is produced by splitting **ATOMS** in a controlled way

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Get to know Nuclear

*Nuclear power plants produce 20% of the electricity for the U.S.*





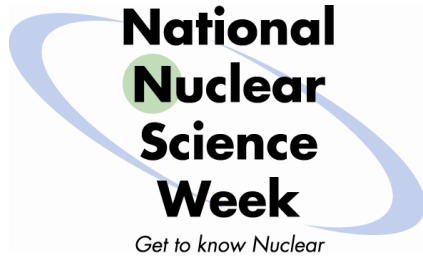
## *Electric Power: Nuclear power is clean air energy*



Since NO fuel is burned,  
NO greenhouse gases are  
created in  
a nuclear  
plant when  
creating  
electricity

That's good  
news for our  
planet!

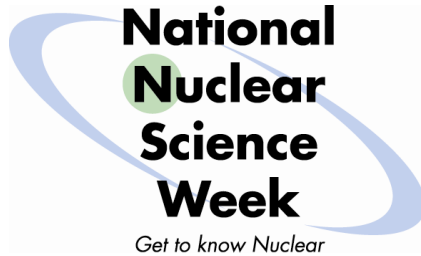




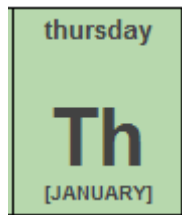
*Electric Power:  
Nuclear power is clean air energy*

If the electricity you use in **YOUR LIFETIME** was produced with nuclear power **ONLY**, the total amount of fuel used would fit inside a soda can.



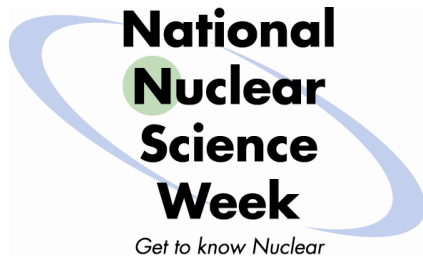


## *Safety: Nuclear science and safe food*



- ### Applying x-rays to food
- Eliminates harmful germs from food
  - Makes food last longer
  - Limits the use of artificial preservatives





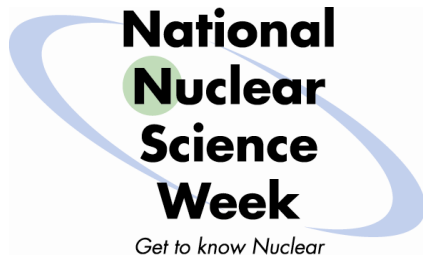
## *Safety: Keeping nuclear power plants safe*



The nation's nuclear power plants are among the **safest** and most **secure** industrial buildings in the U. S.

Multiple layers of security, together with high levels of operational performance, protect plant **workers**, the **public** and the **environment**.

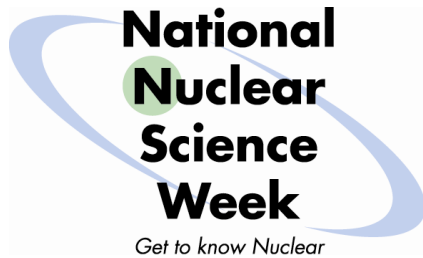




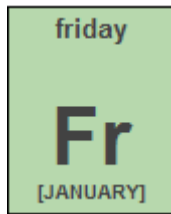
*Safety:  
Using nuclear science*



Even at home, you are using nuclear science in your smoke detectors every day!

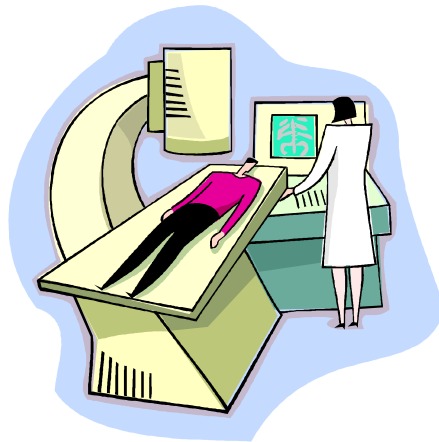


*Medicine:  
Nuclear medicine is saving lives*



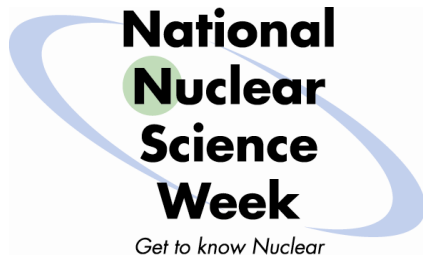
## X-rays

Helping people by taking an image of your body, your bones, your molecules,  
Radioactive dyes



## Radioactive dyes

Giving doctors more information for better medical treatments

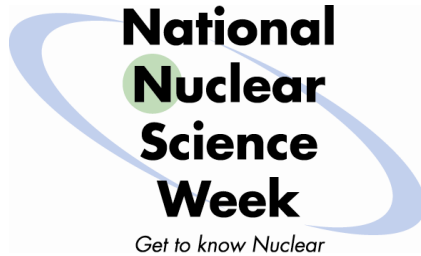


## *Medicine: Nuclear medicine is saving lives*



Nuclear medicine uses safe, painless and cost-effective ways to image the body and treat disease.

New medicine treatments that target and pinpoint **molecular** levels within the body help us to have a NEW understanding and approach to a number of diseases.



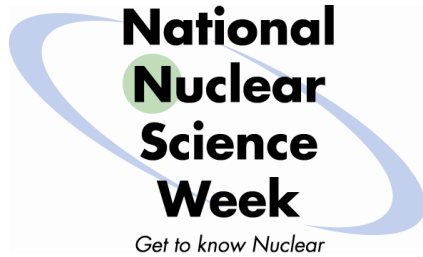
## *Using nuclear science*

### **DID YOU KNOW?**

Nuclear material is used for many things besides nuclear power:



- To perform research at universities
- To help in industries for such things as locating cracks in steel
- Getting rid of dust from film
- Even measuring the amount of air whipped into ice cream!

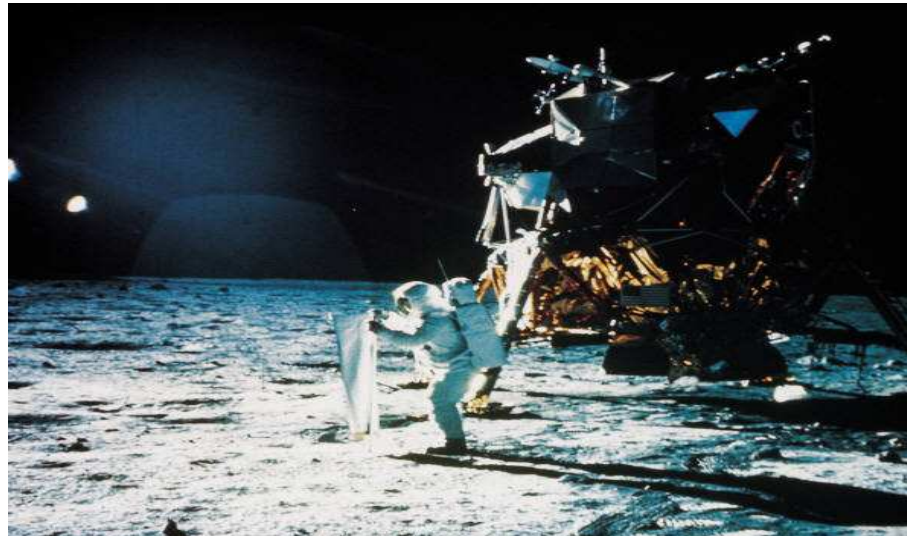


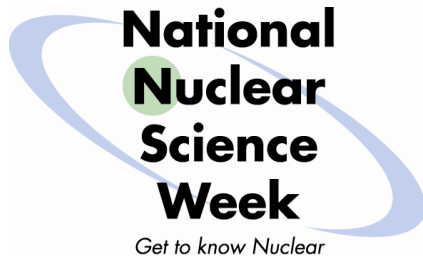
## *Using nuclear science*

### **DID YOU KNOW?**

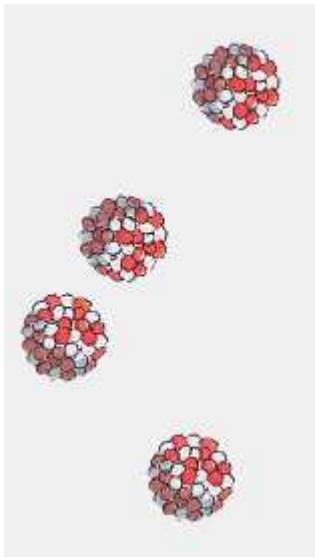
Nuclear powers spaceships and space stations

Makes sure astronauts have safe food





# *Get To Know Nuclear*



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<b>Mo</b>	<b>Tu</b>	<b>We</b>	<b>Th</b>	<b>Fr</b>
[JANUARY]	[JANUARY]	[JANUARY]	[JANUARY]	[JANUARY]

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*What is your question about nuclear science?*