

Massachusetts
Institute of
Technology

Nuclear Reactor

-Safe -Smart -Significant



Pre-Tour

What is this STUFF?

- Each of the following **PONDER PICTURES** have something to do with YOUR tour at the MIT Nuclear Reactor.
- **Your mission:** PONDER: What are they? What do they do?



Ponder Picture 1



Each student will get to interact with the device that is pictured.

- *What is this thing?*
- *Does it give you a hug?*
- *What is the purpose of this machine?*

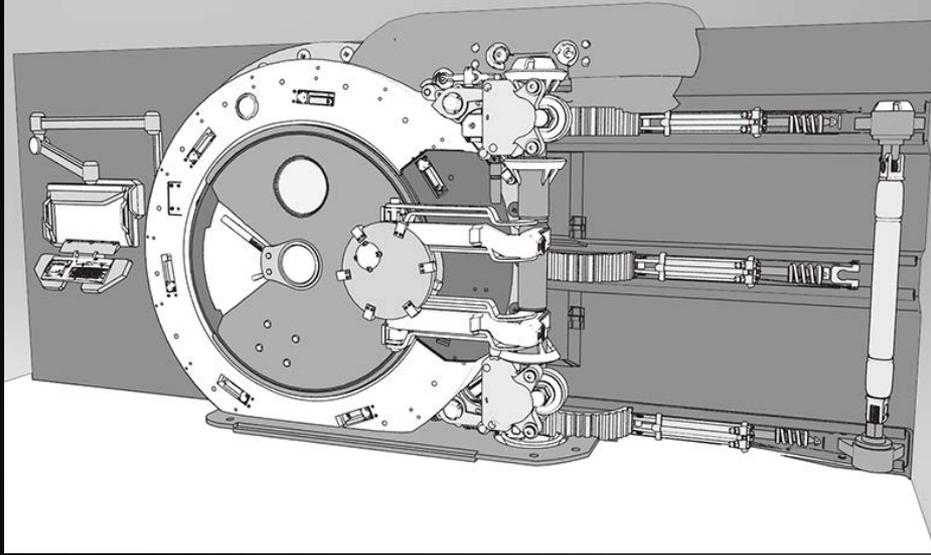
Ponder Picture 2



This is a picture of skin cancer.

- *What does this have to do with the reactor?*

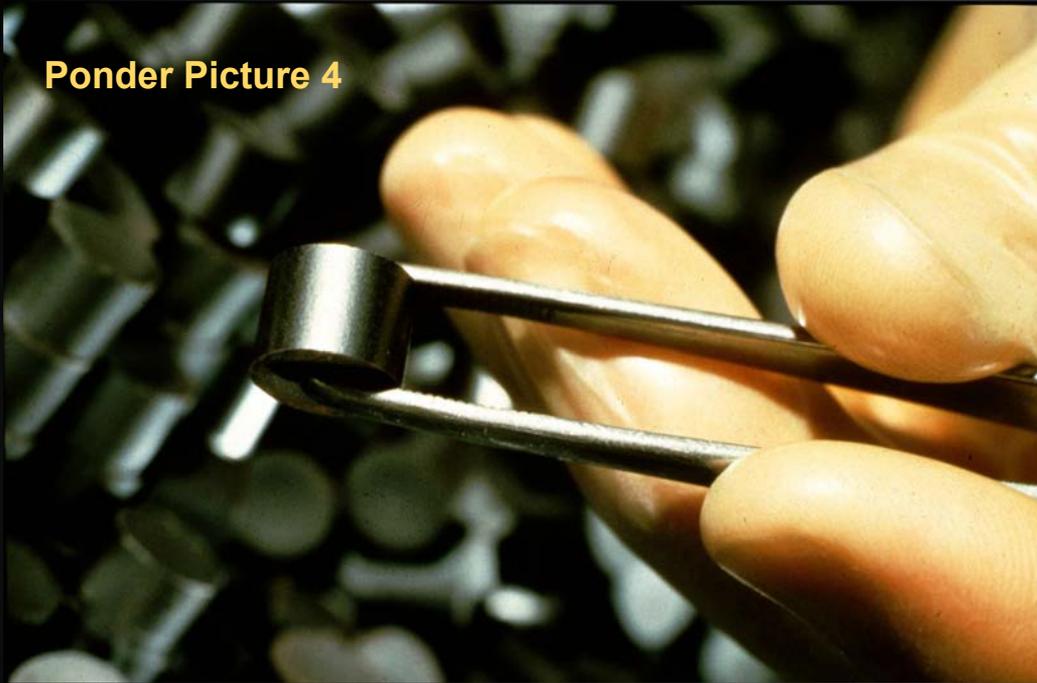
Ponder Picture 3



Think about in movies when you have seen “air-lock” doors. Everyone will get to go through two at the MIT reactor.

- *Why?*
- *For what purpose?*

Ponder Picture 4

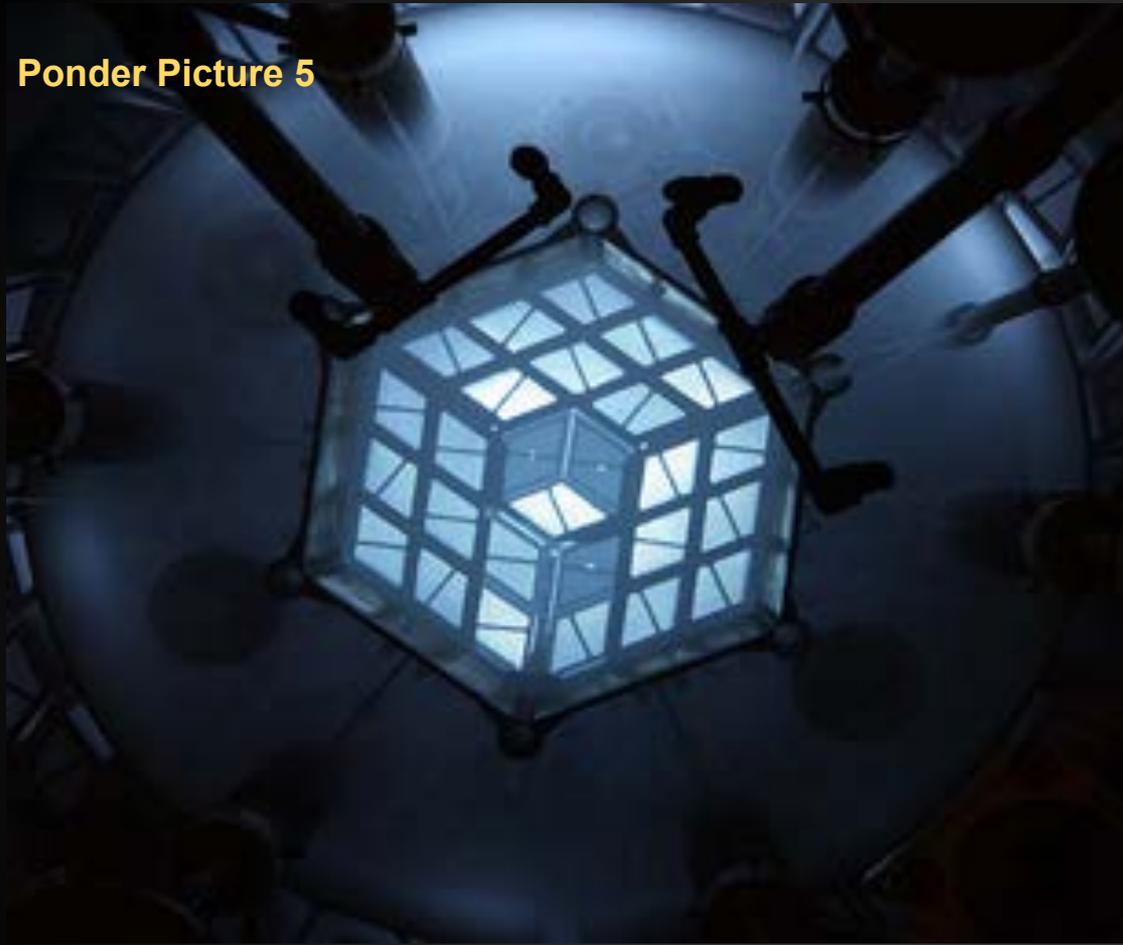


This is an uranium pellet.

- *What is more powerful:*
 - *Uranium Pellet*
(as pictured) or...
 - *a Donkey* *or...*
 - *a Barrel of oil*



Ponder Picture 5



This is what the core of the reactor looks like.

- *Some of the shapes in the middle are lit up and some are not. What is going on?*
- *What else do you notice about it?*

The MIT Nuclear Reactor is:

- *Safe*
- *Smart/Efficient*
- *Significant*

Challenge: Categorize each **PONDER PICTURE** to which part of the MIT Reactor's goals it relates more to.

Does the picture relate more to the reactor being safe, being smart/efficient, or being significant? Discuss why you think that.

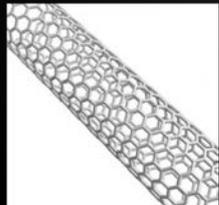
Nuclear Reactor School Competition:

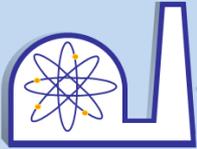
What do YOU want to see tested in the reactor?

Each year, one school will be chosen to select something to be put in the nuclear reactor and tested to see how radiation affects it. Start thinking about it now and after the tour, submit a proposal for what you think should be experimented on and why.

Which of these would be good/not good to test? Why?

(Kittens not allowed!)





MIT Nuclear Reactor Laboratory

-Safe -Smart -Significant



We look forward to seeing you at the tour!