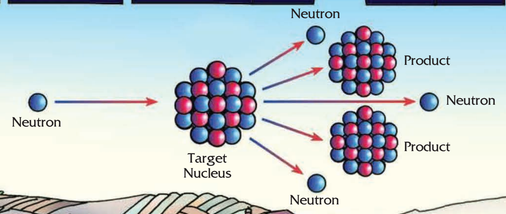
NUCLEAR ENERGY

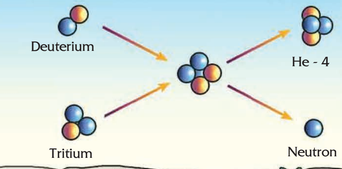
Fission

Fission is the splitting of atomic nuclei, the process used in nuclear reactors. When a nucleus splits apart it releases energy and more neutrons that can strike other nuclei.



Fusion

Fusion is the joining of small nuclei into a larger one at very high temperatures, the process that fuels stars. Hydrogen nuclei join to form helium nuclei in the sun.

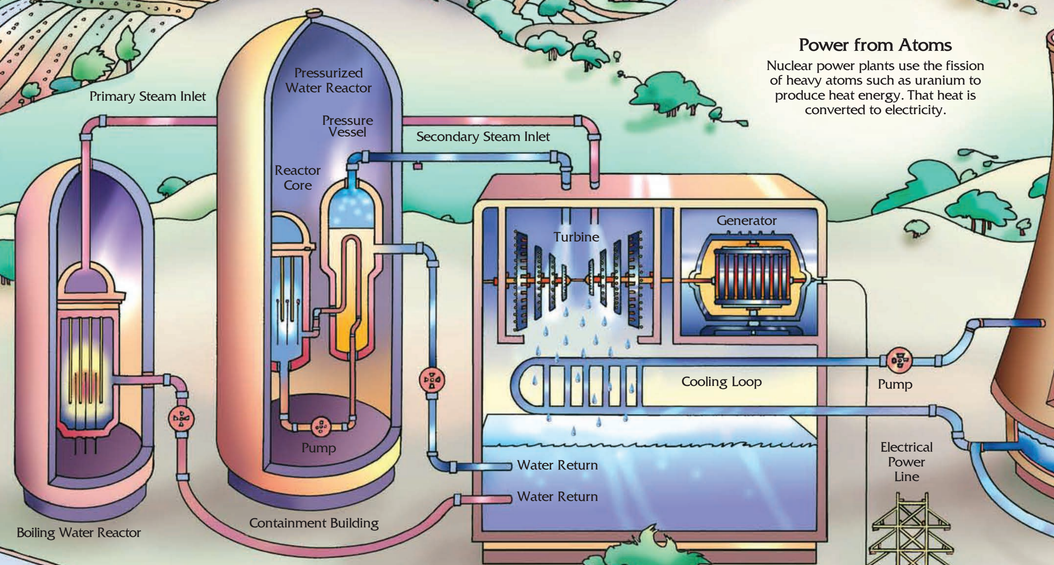


Power from Atoms

Nuclear power plants use the fission of heavy atoms such as uranium to produce heat energy. That heat is converted to electricity.

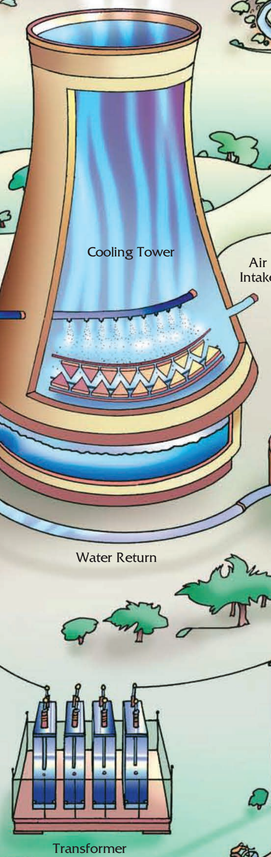
Nuclear Reactors

Two types of nuclear reactors are used in the United States: boiling water reactors and pressurized water reactors. Both reactors are encased in containment buildings and create heat to produce steam.



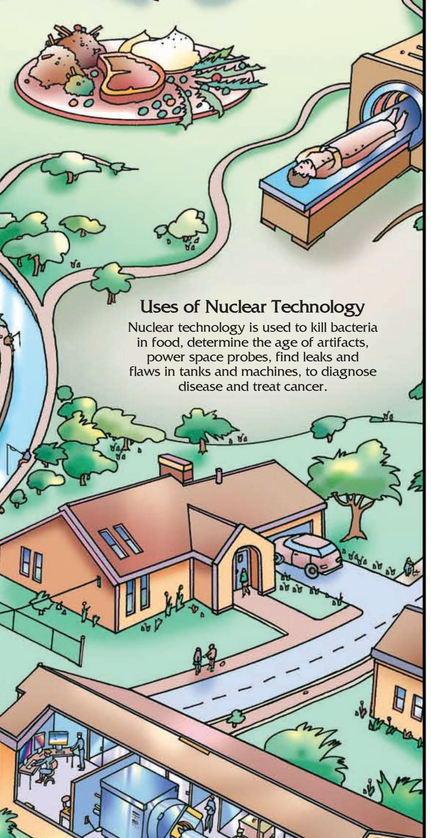
Creating Electricity

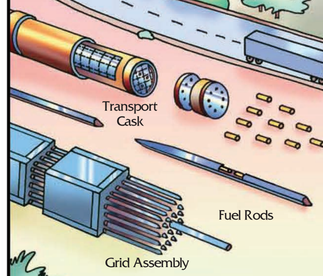
Nuclear power plants operate much like conventional power plants, creating steam to turn a turbine and spin a generator. The only difference is the heat source to produce the steam.



Uses of Nuclear Technology

Nuclear technology is used to kill bacteria in food, determine the age of artifacts, power space probes, find leaks and flaws in tanks and machines, to diagnose disease and treat cancer.





Nuclear Fuel Cycle

Uranium, the fuel for most nuclear reactors, is mined as an ore. The ore must be processed and refined, then turned into fuel pellets that are stacked into rods. Once used, the fuel rods are stored in large casks.

Nuclear Energy and You

Nuclear energy is an important part of our fuel mix. About 20 percent of U.S. electricity is generated by nuclear power plants.

Georgia Power
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This poster is an artist's representation and is not intended to be a technical illustration. Printed on recycled paper in the U.S.A.