

WS 5.6 - Nuclear Reactors

Don Showalter's Miniature Evil Twin Brother (we'll simply call him "Mini-Walter") has erased key terms describing the function of a nuclear power plant. Fill in the blanks by choosing from the answer bank below.

Choose wisely!



In a nuclear reactor, _____ undergoes nuclear _____ when struck by _____. This reaction releases many more _____ which are capable of splitting many more _____ atoms. If this _____ is not controlled, it could cause a _____. To prevent this, _____ are used to absorb _____, thus reducing the number available to cause _____. A metal such as _____ is often used for this, unlike _____ which can vaporize at high temperatures.

In the primary cooling system, water absorbs _____ from the _____, and transfers it to the _____ which is part of the secondary cooling system. The water in the 1° cooling system also helps to regulate the _____ of the reactor core.

In the secondary cooling system water is changed into _____ by absorbing _____ from the _____. Once changed, the _____ can turn a _____ which operates a _____, and this is what creates _____. Eventually, the _____ will have to be changed back into water by the tertiary cooling system.

In the tertiary cooling system, water from a _____ may be used to absorb heat from the _____ which is in the 2° cooling system. Once the water in the 3° is hot, it is sent to a _____ before being returned to the _____.

==== **Answers: In Alphabetical Order + 7** === *Cross Them Off As you Find Them!* =====

1° water system / 3° water system / carbon / cadmium / chain reaction / cobalt / condenser / control rods / cooling tower / electricity / explosion / fission / fission / generator / heat / heat / isotopes / meltdown / moderator / neutrons / neutrons / neutrons / reactor core / river / river / steam / steam / steam / steam / steam generator / temperature / turbine / U-235 / U-235 / U-238

