

Today

- Representing decay using atomic symbols and particles
- Decay activity using pHet.

Warmup

1. What are the 4 types of decay we looked at yesterday?

alpha, beta-positive, beta-negative, gamma

2. What particle is emitted for each type?

helium nucleus, positron, electron, light (photon)

3. What symbol do we use to represent them?

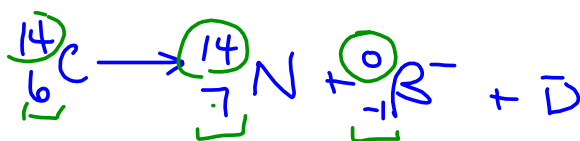
α , β^+ , β^- , γ

Representing Decay

Using Carbon 14 as an example

Carbon-14 \rightarrow Nitrogen-14, an electron and anti-neutrino

Atomic Symbols -



Particles -



Nuclear Decay Activity using pHet

https://phet.colorado.edu/sims/html/build-a-nucleus/latest/build-a-nucleus_all.html



Nuclear Decay Activity
Phet Simulation - Build a Nucleus

	Isotope	Symbol	# of Neutron	# of Proton	Type of Decays Available	Isotope After Decay	New Isotope Symbol	# of Neutron	# of Proton	New Particle?
1	Hydrogen - 3	${}^3_1\text{H}$	2	1	β^-	helium-3	${}^3_2\text{He}$	1	2	e^-

