

RADIATION CROSSWORD PUZZLE

(ANSWER KEY)

ACROSS

2. This type of radiation causes the most damage once it gets inside the body. **(Page 4 - ALPHA)**
4. This type of therapy is a drug, such as DTPA, which may be given immediately after one has inhaled or ingested 10 across. **(Page 21 - CHELATION)**
6. The parts of the body which are more sensitive to chemicals or radiation are known as _____ organs. **(Page 9 - TARGET)**
7. One of two or more forms of the same element. **(Page 2 - ISOTOPE)**
8. This is a small package of energy (such as gamma rays, x-rays, and visible light) which travels at the speed of light. **(Page 3 - PHOTON)**
9. This type of radiation particle is capable of penetrating only the very outer layer of living skin cells. **(Page 4 - BETA)**
10. This is a heavy element which can fission. It emits the type of radiation found in 2 across. **(Pages 3 & 4 - PLUTONIUM)**
12. This chronic health effect can occur due to radiation exposure. **(Page 9 - CANCER)**
14. Radioactive dust contamination can be measured by a _____ test. **(Page 18 - SMEAR)**
16. When wearing an air-purifying respirator (APR) to protect against breathing radioactive particulates, the color of the cartridge or canister is this. **(Page 12 - MAGENTA)**
17. This common material can shield alpha particles. **(Page 6 - PAPER)**
18. Common shield for gamma particles. **(Page 6 - LEAD)**
19. The time period during which a radioactive isotope decays to half its value is called this. **(Page 3 - HALFLIFE)**
21. When exposed to radiation, the longer the exposure time, the greater the _____. Also defined as a measure of radiation absorbed by a specific mass of matter like a body. **(Page 14 - DOSE)**
23. This type of test measures the radioactivity in body fluids (such as urine) the urine to estimate the amount of radiation excreted from the body. **(Page 17 - BIOASSAY)**

27. This is a highly radioactive man-made gas. It is an isotope of hydrogen and sometimes found in heavy water. **(Page 2 - TRITIUM)**
29. This is commonly used with concrete to shield against neutrons. **(Page 6 - WATER)**
31. This type of naturally-occurring radioactive gas is the most common cause of lung cancer in non-smokers. **(Page 4 - RADON)**

DOWN

1. The maximum reduction of exposure to radiation as is reasonable possible. **(Page 10 - ALARA)**
3. Also called clean levels, this level determines whether an area is to be called contaminated. This level is often defined by DOE standards. **(Page 19 - ACTION)**
5. The process by which radioactive substances are removed from a person or object. **(Page 19 - DECONTAMINATION)**
11. This element is a common alpha particle emitter. **(Pages 3 & 4 - URANIUM)**
13. Gamma rays, x-rays, and neutrons are all this type of radiation hazard. **(Page 4 - EXTERNAL)**
15. This type of radiation can pass through the body sometimes causing health effects. **(Page 4 - GAMMA)**
20. This type of dosimeter which can be worn on clothing is often preferred over film badges since it can be worn longer and is more sensitive to neutron exposure. **(Page 16 - TLD)**
22. The three most common ways to control radiation exposure are time, distance, and _____. **(Page 5 - SHIELDING)**
24. This occurs when an unstable nuclei breaks down into two smaller nuclei and releases energy. **(Page 2 - FISSION)**
25. For high levels of contamination, this type of respirator is recommended for use against breathing alpha and beta contamination (abbreviation). **(Page 12 - SCBA)**
26. This type of hand held monitor looks like a pancake and is used to detect radioactive contamination on people who have been working in a contaminated area. **(Page 18 - FRISKER)**
28. Workplace radiation exposure regulations use these units. **(Page 14 - REMS)**
30. The unit that describes an absorbed dose of energy. **(Page 14 - RAD)**

