

# Fallout Shelters-Teacher Answer Key

1. Around what time period or historical events did the federal government recommend fallout shelters in the United States and why?

**Following World War II, political and military tensions and economic competition between the United States and the Soviet Union increased. These tensions, along with the Soviet Union developing and testing nuclear weapons, led to a nuclear arms race between the two countries during a period called the Cold War (1947–1991). With the possibility of a nuclear attack, fallout shelters were developed and “duck and cover” drills became commonplace in the 1950s.**

2. Where are fallout shelters generally located? How does the location help shield, or protect against radiation exposure?

**Fallout shelters are typically located in the lowermost level or centermost portion of a structure to provide shielding from gamma rays. This might include basements, or other in-ground or below-ground structures, and windowless areas in the center of a home or high-rise building structure.**

3. What structural characteristics should fallout shelters have to help shield, or protect people against radiation exposure?

**The walls and roof should be thick and dense enough to absorb the radiation given off by fallout particles. The structure should be windowless because windows do not shield against gamma radiation. Windows also produce an additional risk if they break (e.g., during a blast). Some fallout shelters may have their own ventilation system.**

4. Are fallout shelters necessary today? Why or why not?

**Fallout shelters serve as a means of shielding oneself from nuclear fallout or airborne biological, chemical or radioactive hazards. Answers will vary based on students’ perceived threats of these situations occurring.**

**Answers for questions 5–7 will be student specific. Student answers should preference rooms with higher protection factors, or radiation dose reduction factors, over rooms with lower protection factors.**