

ACTIVITY 15 | 12+ yrs

DESCRIBE A NUCLEAR BLAST.



In learning about the atomic bombings of Hiroshima and Nagasaki (*See Activity 10*), we get some idea about the effects—immediate and long-term—of a nuclear blast. But many of today’s nuclear weapons are much more powerful than the early A-bombs (*See box below*). What would happen if a large

hydrogen bomb were dropped in the middle of your city? Who would live and who would die? Encourage members of the public to consider these frightening questions in the hope that it will strengthen their opposition to these worst weapons of terror.

STEPS

- 1 Produce a **target map** based on the template opposite by filling in the gaps in the table.
- 2 Draw in any **landmarks** on the target to give a better indication of the strength of the blast.
- 3 With a group of friends, create a **giant red “X”** in a public space to mark the hypocentre.
- 4 **Explain to people** what would happen if a nuclear bomb were dropped right there.
- 5 Hand them a copy of your target map and **ask whether they think they would survive**.

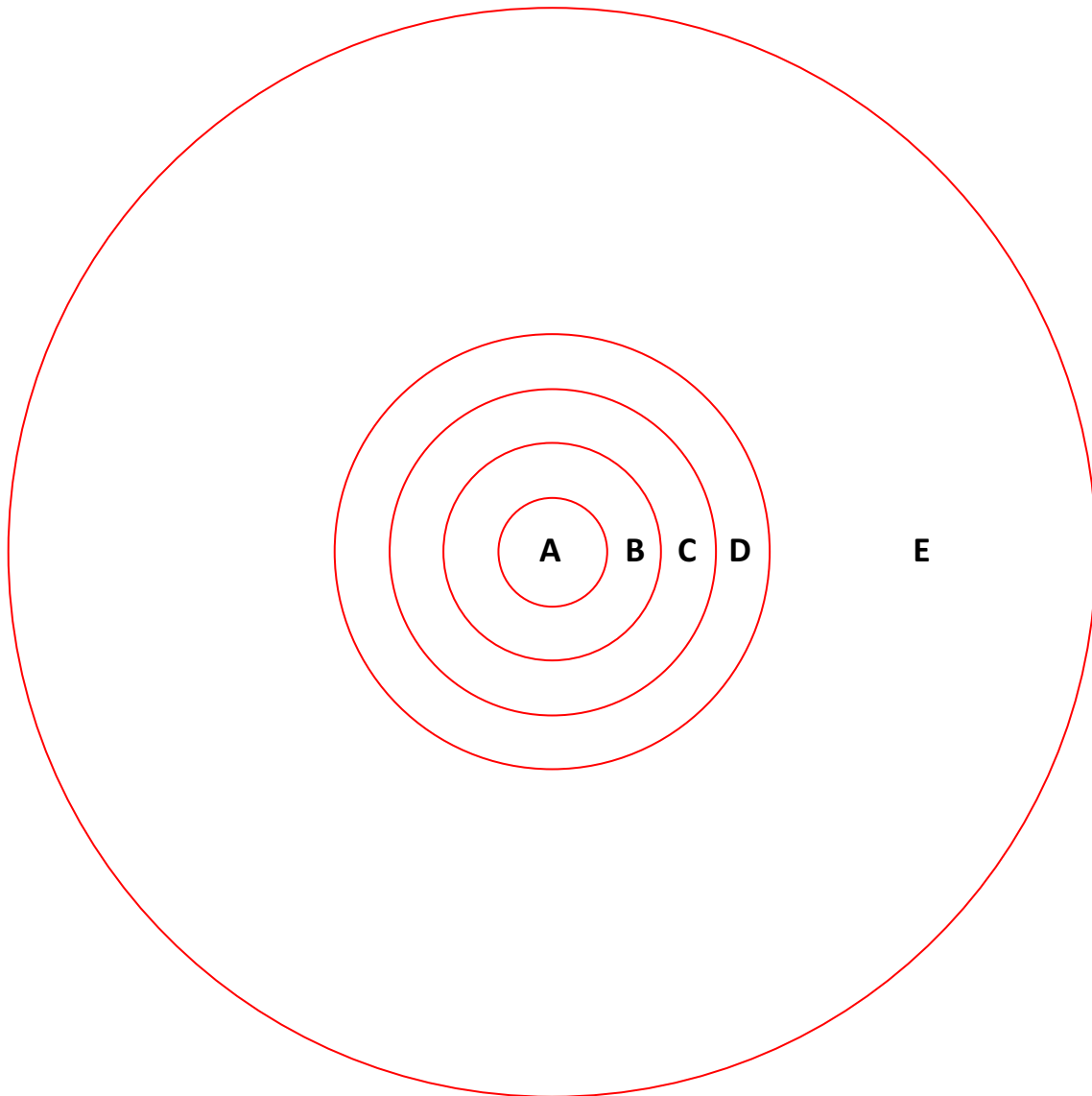
BLAST EFFECTS

- The blast from the nuclear bomb creates an inferno that reaches several million degrees Celsius—as hot as the sun.
- A heat flash vaporizes all human beings and flattens all buildings within a particular radius (determined by the size of the bomb).
- Radiation sickness sets in, with symptoms including bleeding from the mouth and gums, hair loss, internal bleeding, and vomiting.
- Pregnant women exposed to the blast give birth to children with illnesses and deformities, often long after the bombing.
- Some years later, survivors of the immediate effects of the blast develop cancers of the blood, breast, lung and salivary gland.

BIGGER BOMBS

The figures we use on the target map are based on a 12-kiloton bomb—roughly the size of the atomic bomb dropped on Hiroshima. Many of today’s nuclear weapons are much bigger and therefore have a much greater destructive capacity. The Soviet Union once tested a 50,000-kiloton thermonuclear weapon.

TARGET MAP



Effect of a 12-kiloton nuclear bomb

Band	Distance from hypocentre	Approximate population	Fatality rate	Total deaths*
A	0–0.5km		98%	
B	0.5–1km		90%	
C	1–1.5km		46%	
D	1.5–2km		23%	
E	2–5km		2%	

* To calculate the total deaths, multiply the approximate population by the fatality rate and then divide it by 100.