

8.4 The Uses of Radioactive Ray

1. Complete the following table on the uses of radioactive radiations.

Sodium-24	bacteria	age	Beta rays	plants	medical	preservation
Gamma rays	absorption	agriculture	cancerous	Carbon-14	Blood clots	industrial

Field	Uses
(a) _____	(b) _____ are used to control metal sheet thickness.
Archaeology	(c) _____ used to determine the approximate (d) _____ of objects or ancient materials.
(e) _____	Phosphorus-32 is used to determine the rate of (f) _____ of phosphate fertilisers in (g) _____.
(h) Food _____	(i) _____ are used to kill (j) _____ in foods before being packed and canned
(k) _____	<ul style="list-style-type: none">• Cobalt-60 are used to kill (l) _____ cells and disinfect germs.• (m) _____ is used to detect the positions of (n) _____ in veins.

2. Match the radioactive substance with their correct uses.

Iodine-131

To locate the source of leakage in
underground pipes.

Sodium-24

Make atomic bombs and generate
electricity

Uranium-235

Detect thyroid disease

3. The statements below are related to handling radioactive substances. Choose the correct word.

- a) Wearing a special _____ suit when handling radioactive substances.
- b) The substance with high radioactive level need to be conducted by _____.
- c) Dosimeter is a _____ that worn by the worker conducting radioactive substances.
- d) Radioactive substance and waste need to be stored in a thick _____ container.
- e) _____ ourselves from the radioactive substances as far as possible.
- f) Reduce the _____ of being exposed to the radioactive substances.

4. Nuclear weapon testing is often carried out in other countries to test the effectiveness of the weapon. In your opinion, is our country suitable to carry out nuclear weapon testing like what other countries do ?



- It is _____ to be carried out in our country.
- Nuclear weapon testing is one of the sources of _____ radiation.
- The radioactive radiation that is released is very _____ to living things on the Earth.
- The plant will die because they will be unable to carry out _____ and humans will experience _____ that causes _____ in the body.

ionising	not suitable	Cancer
photosynthesis	cell mutation	dangerous