

Activity 3 – Physics

Paper 1P, Q3b

Because the fruits aren't contaminated ~~only~~ exposed by the gamma rays. And they do not harm people who eat the fruit, as the fruit is not radioactive.

(2)

The fruit has simply been exposed to radiation rather than been in contact with the radiation used. This means that it has not become contaminated and so is not radioactive. As a result, it is safe to eat.

(2)

The irradiation has killed all the bacteria so that ^{there} ~~they~~ are no pathogens. Although the fruits have been irradiated, ^{they} ~~they~~ are not radioactive and so are safe as they have not been contaminated.

After the parachute was opened⁽⁴⁾, this caused air resistance to be much greater^{and increase}. This causes the velocity to ~~slow~~ reduce until velocity and drag ~~force~~ are equal. This means the spacecraft has reached a lower terminal velocity than before.

When the spacecraft opens its parachute, the downward force is greater than the upwards force. However over time, drag and weight begin to balance out and they become equal and it reaches its maximum velocity (the low terminal velocity).

By opening a parachute, there is a greater surface area and ~~the~~ the air resistance becomes ~~a~~ a larger force. There is more drag and it is greater than the downwards force so the velocity of the falling spacecraft will slow down and gradually reach a low terminal velocity.