

Name:

Class:

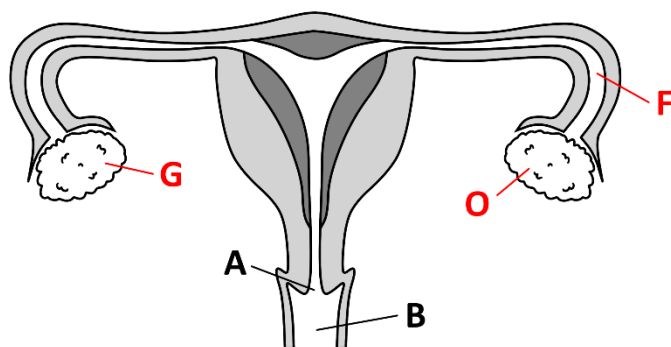


Plants need both magnesium ions and nitrate ions for healthy development.
State why each of these is important for healthy development.

Magnesium ions: **needed to make chlorophyll.**

Nitrate ions: **needed to make amino acids/ proteins/ enzymes.**

The diagram below shows the female reproductive system.



i. Name the structures labelled A and B.

A = **cervix**

B = **vagina**

ii. Label, on the diagram above, with the appropriate letter, where:

- 1) Fertilisation normally occurs – F.
- 2) Gametes are produced – G.
- 3) Oestrogen is produced – O.

iii. List **three** secondary sexual characteristics that are stimulated by oestrogen.

- **Development of breasts/ mammary glands.**
- **Widening of hips/ pelvis.**
- **Growth/ development of pubic hair.**

State the **name** of the hormone that increases the permeability of the kidney nephron.

Anti diuretic hormone

State the **name** of the hormone that causes ovulation.

Luteinising hormone

State which valve is found between the left atrium and left ventricle.

The Bicuspid valve or Mitral valve.

Which side of the heart contains oxygenated blood?

The left or left hand side

Clostridium tetani is a bacterium that can be found in soil. It causes the infection tetanus. Children are vaccinated against tetanus.

Explain why these children do not get tetanus if the bacteria enter their body through a cut

An explanation linking three of the following:

- **They are immune (to *Clostridium tetani*)**
- **Because the vaccination contained an antigen / bacterium have antigens.**
- **Memory lymphocytes.**
- **Leading to the production of antibodies.**
- **Leading to a secondary (immune) response.**