

Pregnancy and Birth

KS3 Biology · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

What is fertilisation, and where does it usually happen?

Step 1 · Definition

Fertilisation is when the nucleus of a sperm joins with the nucleus of an egg.

Step 2 · Place

It usually happens in the oviduct (fallopian tube).

Step 3 · Result

A fertilised egg cell (zygote) forms, with genetic information from both parents.

Answer: The joining of sperm and egg nuclei, in the oviduct

Check: Only one sperm can fertilise the egg; the egg's jelly coat then changes to keep others out.

2. Now try one with the steps

Describe the journey from fertilisation to implantation.

Step 1 · Cell division

Step 2 · Implantation

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. What is formed when a sperm fertilises an egg? [1]

2. What is the word for the time a baby develops in the uterus? [1]

3. About how many weeks does human gestation last? [1]

4. What connects the fetus to the placenta? [1]

5. What is the job of amniotic fluid? [1]
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6. Name TWO useful substances that pass from mother to fetus. [2]
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7. Name ONE waste substance that passes from fetus to mother. [1]
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8. What is implantation? [1]
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9. Explain why pregnant women are advised not to drink alcohol. [2]
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10. During birth, what happens to the muscles of the uterus and the cervix? [2]
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11. Why are pregnant women advised to take folic acid? [1]
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12. A fetus grows from 0.5 kg at 22 weeks to 3.5 kg at 40 weeks. What is the mean gain in mass per week, in kg? [2]
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13. Explain why it is important that the mother's and fetus's blood do not mix. [2]
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14. Explain why a baby born to a smoker may have a low birth weight. [3]
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4. Before you hand it in

"The mother's blood flows into the baby."

Substances diffuse across the thin placenta between the two bloods, which never mix.

"The placenta filters out everything harmful."

Alcohol, nicotine, carbon monoxide, many drugs and some viruses can all cross the placenta.

Using 'embryo' and 'fetus' they mean the same.

Embryo = early stage while organs are forming (up to about 8–9 weeks). Fetus = from then until birth.