

Grade 8 Natural Science Worksheet

Pregnancy

Part One: How a woman becomes pregnant

What are the events which lead up to a woman becoming pregnant? Write your answer in a well structured paragraph. [16 marks]

Part Two: Important things to know about pregnancy

1. Explain the meanings of the terms: zygote, embryo and foetus. [6]
2. What is the location and role of the placenta? [4]
3. How could a pregnant woman's diet affect her unborn child?
4. There is a condition known as *foetal alcohol syndrome*. Why is the consumption of alcohol harmful to the developing foetus? [5]
5. Is a foetus aware of external sounds, i.e. of sounds coming from outside of the mother's body? Discuss the implications of your answer. [5]

[20 marks]

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Suggested Solutions

Question number	Possible marks	Solution
1	16	Firstly, the woman releases an egg from her ovary. ✓ This is called ovulation. ✓ The egg is released at a time when the uterus is prepared to receive the egg. ✓ The uterus has laid down a thick lining that will nourish and feed a fertilised egg. ✓ The egg begins to move down a tube called the oviduct to the uterus. ✓ If the woman has sex at this time, then sperm will enter her vagina ✓ and travel into her uterus and up into the oviducts. ✓ The first sperm to get to the egg will fertilise the egg. ✓ This means that the two cells join and combine their genes. ✓ Once the egg and sperm have joined, the resulting cell is called a zygote. ✓ The zygote continues to divide rapidly by mitosis, normal cell division, ✓ and it grows into a ball of cells. ✓ The zygote continues travelling down the oviduct and after about 4 to 7 days, ✓ it will implant itself in the thick lining of the uterus. ✓ The zygote is now called an embryo. ✓ The cells of the embryo will continue to divide and then start specialising as they develop into a baby. ✓ The woman is now pregnant.
2	6	1. Zygote – a fertilised egg/ovum. ✓✓ Embryo – about two weeks after fertilisation the zygote is known as an embryo. ✓✓ Between weeks 9 and 12, the embryo has developed sufficiently to be called a foetus. ✓✓
	4	2. The placenta is a thick membrane ✓ that lies inside the uterus. ✓ The placenta is connected to the umbilical cord which is attached to the baby at the “belly button”. ✓ The nutrients required by the growing baby are fed to it from the placenta via the umbilical cord. ✓ Wastes are delivered back to the mother. ✓
	4	3. What the pregnant woman eats is digested by her body ✓ and the nutrients are passed to her baby via the umbilical cord and placenta. ✓ If the mother eats healthy food, the baby will receive healthy nutrients and vice versa. ✓✓
	5	4. <i>Foetal alcohol syndrome</i> is caused when the mother’s alcohol intake ✓ passes to the foetus ✓ through the placenta. ✓ Alcohol is toxic even for adults. ✓ Alcohol causes harm to a developing foetus. ✓
	5	5. Yes. ✓ The foetus can detect sound from about 24 weeks. ✓ Sudden noises can frighten the foetus ✓ and gentle sounds e.g. soft music can calm it. ✓ Many mothers play gentle music in the belief that it will calm the baby and keep it stress-free. ✓