

GCSE Combined Science: Trilogy

Worksheet: Contraception

TIME 30 min	TOTAL 30 marks	CALCULATOR Allowed	DIFFICULTY Easy, Medium
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Topics: Contraception

NAME	CLASS	DATE
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- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Answer all questions in the spaces provided.
- In all calculations, show clearly how you work out your answer.
- The marks for questions are shown in brackets.

0 1

There are many different methods of contraception, some hormonal and some non-hormonal.

0 1 . 1

Which of these is a hormonal method of contraception?

Tick (✓) **one** box.

Condom

☐

Diaphragm

☐

Oral contraceptive pill

☐

Spermicide

☐

[1 mark]

0 1 . 2

Name **one** method of contraception that releases progesterone slowly over several months or years.

.....

.....

.....

[1 mark]

0 1 . 3

Male sterilisation (vasectomy) involves cutting or tying which tubes?

.....

.....

.....

[1 mark]

0 1 . 4

Describe how a barrier method of contraception, such as a condom, prevents pregnancy.

.....

.....

[1 mark]

0 2

Fertility can be controlled by hormonal and non-hormonal methods of contraception.

0 2 . 1

Which method of contraception kills or disables sperm?

Tick (✓) **one** box.

- | | |
|-----------------------|--------------------------|
| Condom | ☐ |
| Contraceptive implant | ☐ |
| Diaphragm | ☐ |
| Spermicide | ☐ |

[1 mark]

0 2 . 2

Which method of contraception also protects against sexually transmitted infections?

Tick (✓) **one** box.

- | | |
|---------------------------|--------------------------|
| Condom | ☐ |
| Contraceptive implant | ☐ |
| Intrauterine device (IUD) | ☐ |
| Oral contraceptive pill | ☐ |

[1 mark]

0 2 . 3

Oral contraceptives contain hormones that stop eggs maturing.
Which hormone do they inhibit?

.....

.....

.....

[1 mark]

0 2 . 4

Some couples avoid intercourse at the time an egg may be in the oviduct rather than use other methods of contraception.
Give **one** reason why.

.....

.....

[1 mark]

0 3

There are many different methods of contraception.

0 3 . 1

Which method of contraception is a barrier method?

Tick (✓) **one** box.

Contraceptive implant

☐

Contraceptive injection

☐

Diaphragm

☐

Oral contraceptive pill

☐

[1 mark]

0 3 . 2

Which **two** methods of contraception contain hormones?

Tick (✓) **two** boxes.

Condom

☐

Contraceptive skin patch

☐

Diaphragm

☐

Oral contraceptive pill

☐

Spermicide

☐

[2 marks]

0 3 . 3

How do spermicidal agents prevent pregnancy?

.....

.....

[1 mark]

0 3 . 4

Give **one** surgical method of contraception.

.....

.....

[1 mark]

0 4

Some methods of contraception do not use hormones.

0 4 . 1

Some couples avoid having sexual intercourse at the times when an egg may be in the oviduct.

Explain why this method often fails.

.....

.....

.....

.....

[2 marks]

0 4 . 2

Give **one** advantage and **one** disadvantage of sterilisation as a method of contraception.

.....

.....

.....

.....

[2 marks]

0 4 . 3

A diaphragm is a barrier method. It is often used together with a spermicide. Explain how using both together reduces the chance of pregnancy.

.....

.....

.....

.....

[2 marks]

0 5

Table 1 shows how many women in every 100 become pregnant in one year when using different methods of contraception in the way people typically use them.

Table 1

Method	Number of women in every 100 who become pregnant in one year
no contraception	85
diaphragm with spermicide	17
condom	13
oral contraceptive pill	7
copper intrauterine device (IUD)	0.8
contraceptive implant	0.1

0 5 . 1

A clinic has 2400 patients who use the oral contraceptive pill. Estimate how many of these patients would become pregnant in one year.

.....

.....

.....

.....

[2 marks]

0 5 . 2

When the oral contraceptive pill is used exactly as instructed, fewer than 1 in every 100 women become pregnant in one year.
Suggest why the number in Table 1 is much higher.

.....

.....

[1 mark]

0 5 . 3

Suggest **two** reasons why a couple might choose to use condoms even though the implant is more effective.

.....

.....

.....

.....

[2 marks]

0 5 . 4

An intrauterine device (IUD) is placed inside the uterus.
Give **two** ways that different types of IUD prevent pregnancy.

.....

.....

.....

.....

[2 marks]

0 6

There are two main types of contraceptive pill: the combined pill and the progesterone-only pill.

0 6 . 1

Name the **two** hormones contained in the combined pill.

.....

.....

[1 mark]

0 6 . 2

The progesterone in the progesterone-only pill makes the mucus at the entrance to the uterus (the cervix) thicker.
Suggest how this helps to prevent pregnancy.

.....

.....

.....

.....

[2 marks]

0 6 . 3

Suggest **one** reason why a doctor might recommend the progesterone-only pill, rather than the combined pill, to a particular patient.

.....

.....

[1 mark]

END OF QUESTIONS

Original practice questions written to match the specification. Not produced by, affiliated with or endorsed by AQA.

Mark scheme

GCSE Combined Science: Trilogy · Worksheet: Contraception · 30 marks

Question 1 (4 marks)

01.1 [1 mark]

Correct: Oral contraceptive pill

01.2 [1 mark]

Answer: A contraceptive implant

- an implant / an injection / a skin patch (1)

Notes: Allow an intrauterine device (IUD) that releases a hormone.

01.3 [1 mark]

Answer: The sperm ducts

- sperm ducts / vas(a) deferens (1)
-

01.4 [1 mark]

Answer: It physically stops sperm reaching an egg

- it physically stops sperm reaching an egg / entering the uterus (1)
-
-

Question 2 (4 marks)

02.1 [1 mark]

Correct: Spermicide

02.2 [1 mark]

Correct: Condom

02.3 [1 mark]

Answer: FSH

- FSH / follicle stimulating hormone (1)
-

02.4 [1 mark]

Answer: Religious or personal beliefs / no hormones or side effects / no cost

- religious / personal beliefs / no hormones / no side effects / free / nothing needs to be fitted (1)
-

Question 3 (5 marks)

03.1 [1 mark]

Correct: Diaphragm

03.2 [2 marks]

Correct: Contraceptive skin patch; Oral contraceptive pill

03.3 [1 mark]

Answer: They kill or disable sperm

- kill / disable sperm (1)
-

03.4 [1 mark]

Answer: Sterilisation (e.g. cutting or tying the sperm ducts or the oviducts)

- (male or female) sterilisation / vasectomy / cutting or tying the oviducts or sperm ducts (1)
-

Question 4 (6 marks)

04.1 [2 marks]

Answer: It is difficult to know exactly when ovulation happens because cycles vary, and sperm can survive in the woman's body for several days

- it is difficult to know exactly when ovulation happens / cycle length varies (1)
 - sperm can survive (in the woman's reproductive system) for several days (1)
-

04.2 [2 marks]

Answer: Advantage: almost 100% effective / permanent so nothing to remember.

Disadvantage: very difficult or impossible to reverse / needs surgery

- advantage: (very) effective / permanent / no need to remember anything / no hormones (1)
 - disadvantage: difficult or impossible to reverse / risks of surgery / no protection against STIs (1)
-

04.3 [2 marks]

Answer: The diaphragm stops sperm reaching the egg, and any sperm that get past it are killed or disabled by the spermicide

- the diaphragm prevents sperm reaching the egg / entering the uterus (1)
 - the spermicide kills / disables any sperm that get past (the diaphragm) (1)
-

Question 5 (7 marks)

05.1 [2 marks]

Answer: 168

- $2400 \times 7 \div 100$ (1)
- 168 (1)

Notes: Correct answer with no working scores 2 marks.

05.2 [1 mark]

Answer: People forget to take the pill or take it late

- people forget to take the pill / take it late / at the wrong time (1)

Notes: Allow 'vomiting or diarrhoea stops the pill being absorbed'.

05.3 [2 marks]

Answer: Condoms protect against sexually transmitted infections; they contain no hormones so have no hormonal side effects; they are easy to get and only used when needed

- condoms protect against sexually transmitted infections / STIs (1)
- no hormones / no (hormonal) side effects (1)
- easy to obtain / no need to see a doctor (1)
- only used when needed / no procedure to fit or remove (1)

Any 2 of the points above.

05.4 [2 marks]

Answer: They prevent the implantation of an embryo; some types release a hormone

- prevent the implantation of an embryo (in the uterus) (1)
- (some) release a hormone (e.g. progesterone) (1)

Notes: Allow 'copper IUDs kill / damage sperm' as one of the two ways.

Question 6 (4 marks)

06.1 [1 mark]

Answer: Oestrogen and progesterone

- oestrogen and progesterone (both needed) (1)

06.2 [2 marks]

Answer: Sperm cannot swim through the thick mucus into the uterus, so they cannot reach an egg

- sperm cannot swim / pass through the thick mucus into the uterus (1)
- so sperm cannot reach (and fertilise) an egg (1)

06.3 [1 mark]

Answer: Some patients cannot safely take oestrogen for medical reasons, so the progesterone-only pill provides a hormonal option for them

- the patient cannot take oestrogen for a medical reason (e.g. a risk of blood clots or high blood pressure) / oestrogen causes side effects for them / they are breastfeeding (1)
-