

Reproduction

By the end of this topic, pupils will be able to:

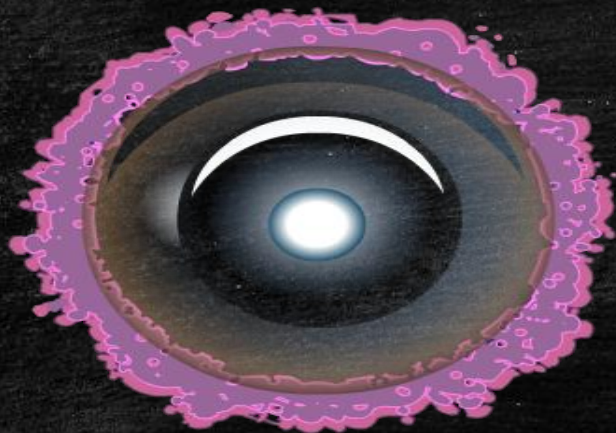
1. Label the parts of the male and female reproductive system.
2. State the function of each these parts.
3. State what the term fertilisation means.
4. Describe the steps of fertilisation.
5. Describe how a baby survives in the uterus.
6. State three substances that can cause harm to the baby.
7. State three substances that can cause harm to a baby during pregnancy and the damage each of them can bring about.
8. State four things that are necessary for the development of a healthy child and why they are essential.
9. Give examples of the changes that occur during puberty in both males and females.
8. State what menstruation is.
9. Describe the 3 main stages of menstruation.

Human reproduction

Reproduction is one of the seven life processes.
All living things reproduce.

Humans use sexual reproduction to produce their young.

In order to do this, the two parents (male and female) have different reproductive systems and organs that produce different sex cells.



The Big Picture Activity.

- Pupils will be placed into groups .
- A person from each group will be nominated to act as the illustrator and will remain seated. Each member of the group will be given 1-2 minutes to view a picture of the female reproductive system which will be placed at the side of the classroom.
- When they return to the group the pupil must describe to the illustrator the part of the reproductive system they have chosen to describe. The remainder of the group will proceed to follow the same procedure with the last one tasked to describe all the parts which will complete the diagram.
- The pupils will then be shown the correct diagram of the female reproductive system on the board. The task will be repeated with the male reproductive system with a different illustrator in each group.

Female Reproductive System

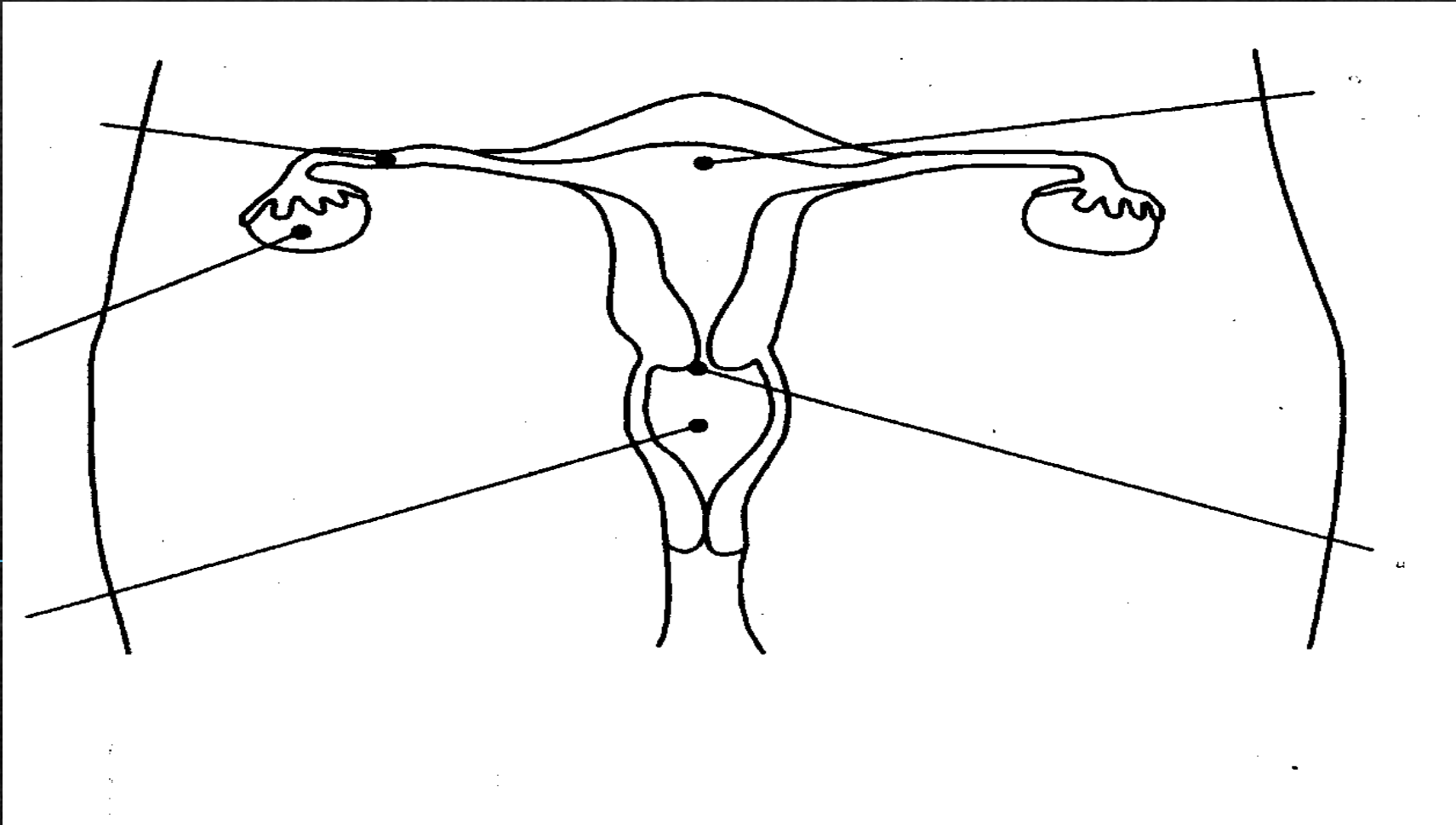
Oviduct

Uterus

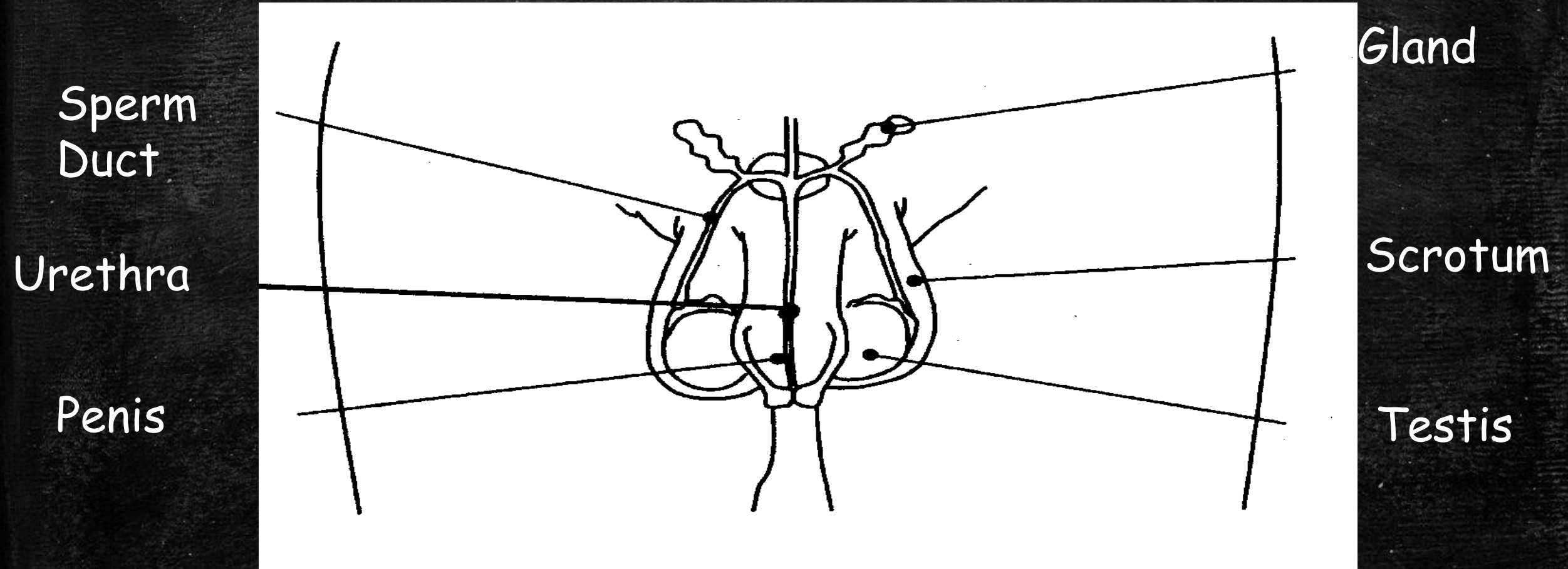
Ovary

Vagina

Cervix



Male Reproductive System



Complete Worksheet 7.2

Male or female?



Are these parts of the human reproductive system male or female?

Male

Female

?

?

?

?

?

?

?

?

uterus

cervix

scrotum

prostate gland

oviduct

testis

ovary

sperm duct



solve



Reproductive system



What do the different parts of the human reproductive systems do?

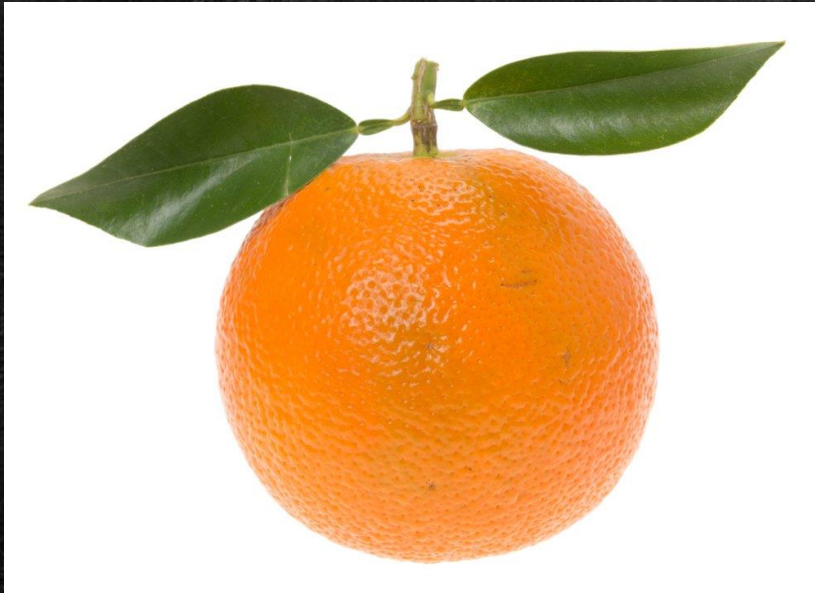
ovary	=	?	add fluid to sperm
testes	=	?	produce sperm
urethra	=	?	carry sperm out of the body
oviduct	=	?	carry eggs to the uterus
sperm duct	=	?	carry sperm from the testes
glands	=	?	produce eggs
scrotum	=	?	protect the testes



solve



Linking to the reproductive system, what do you think these different fruits represent?

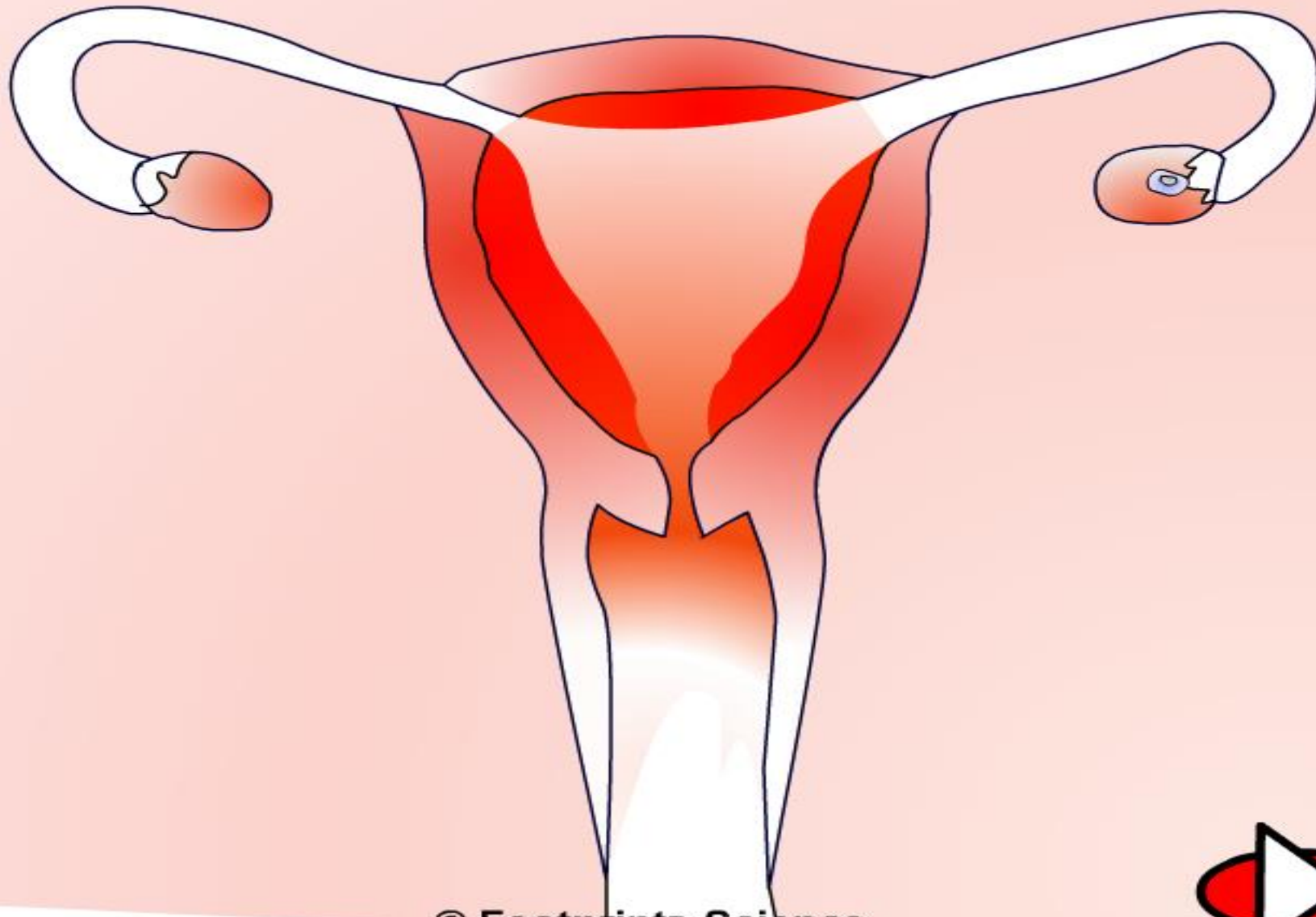


Before pregnancy – uterus is about the size of an orange and situated deep in the pelvis.



During pregnancy, your uterus will finish growing to about the size of a watermelon. Uterus extends from pelvis to bottom of ribcage.

Fertilisation



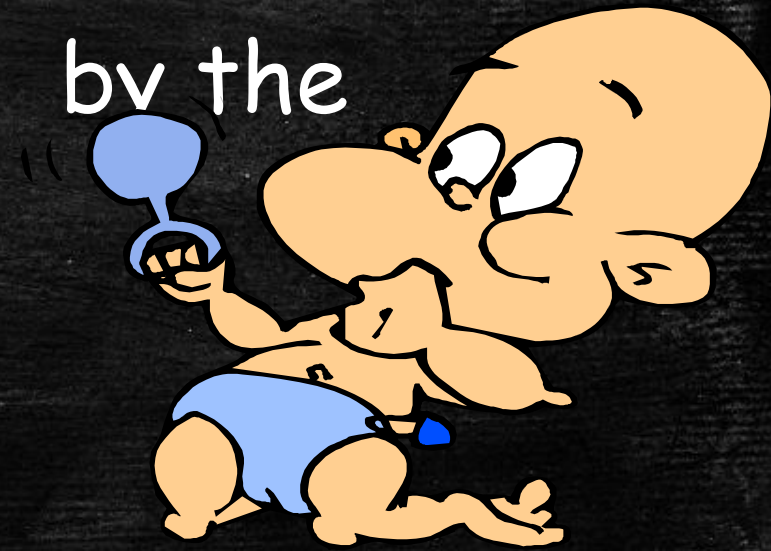
© Footprints-Science



Complete Worksheet 7.3

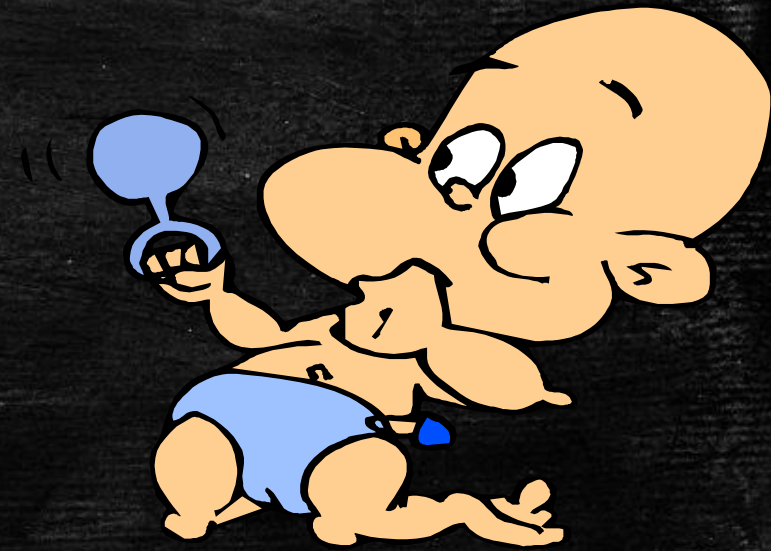
Pregnancy

- Once the egg has been fertilised it starts dividing and moves into the uterus.
- Here it becomes implanted in the wall.
- An organ called the placenta is formed
- This is attached to the baby by the umbilical cord.

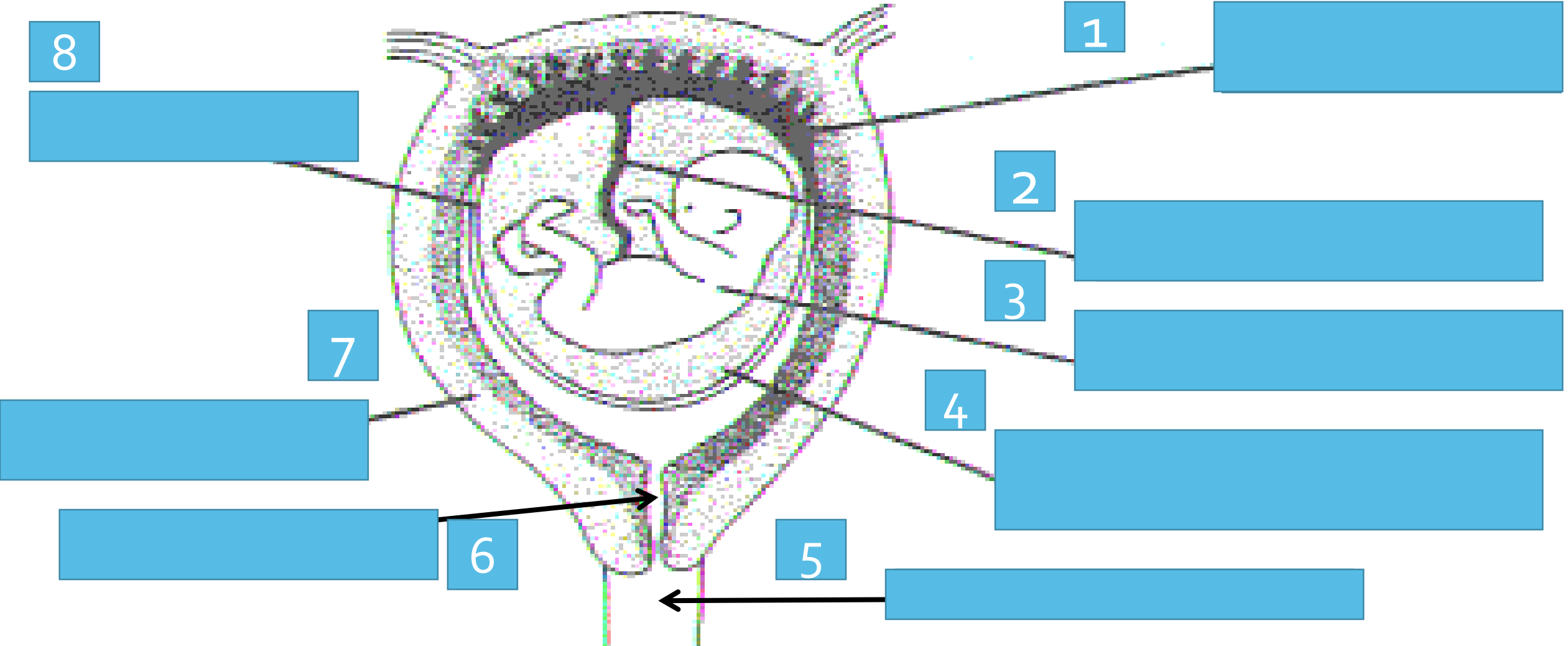


• The placenta supplies the baby with food and oxygen

• It also removes waste products and carbon dioxide from the baby



Amniotic Fluid Uterus Cervix Amnion Vagina Baby Placenta Umbilical Cord



Pregnancy and Health

Alcohol

May cause low birth weight. Baby more prone to developing asthma or eczema.

Cigarette Smoke

Baby may suffer withdrawal symptoms at birth.

Drugs

Causes foetal alcohol syndrome.



Complete Pregnancy and Health Worksheet

Think-Pair-Share



The needs of a young child:
Think and Discuss with your partner four things that are necessary for the development of a healthy child and why they are essential.

The needs of a young child

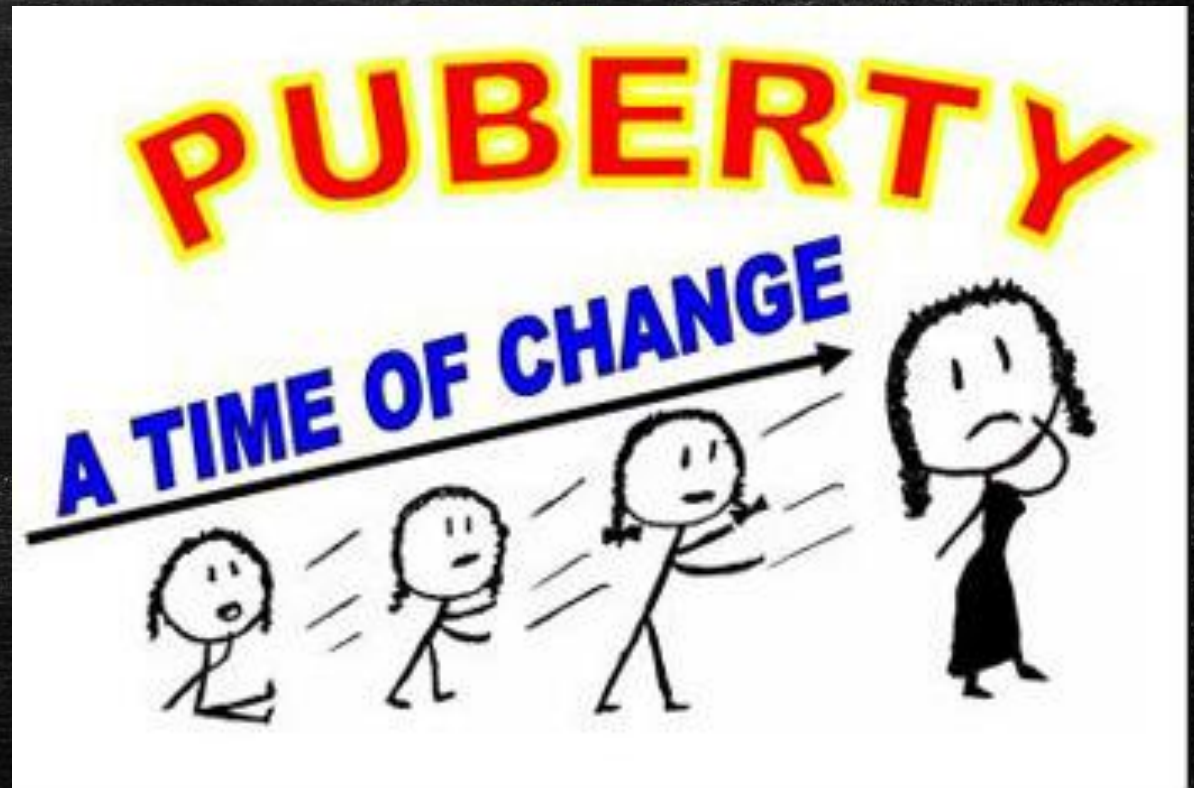
1. **Breast Milk** - Protects baby against disease by providing antibodies. Also provides baby with vital nutrients.
2. **Balanced Diet** - For healthy growth
3. **Vaccines** - Protect against disease.
4. **Parental Care** - Provides child with all its need such as food, nappies changed, bathing, clothing, medicine etc. Also protects him/her against danger.
5. **Loving environment** - Feel cared for and looked after. For social and mental development.

Puberty

Puberty is time when a child's body starts to change into an adult body and is caused by hormones.

This happens at different ages in different people but generally starts between 8-14 in girls and 11-15 in boys.

Girls and boys cannot produce children until they have completed puberty.



Tim and Moby

- <http://www.brainpop.co.uk/uk/science/lifeprocesseshumans/puberty/>

Sort these changes into the right section of your table in worksheet 7.5:

Voice
Breaks

Penis enlarges

Attracted to one
another

Emotions changes

Grow hair on face
and chest.

Grow hair on
pubic regions

Breasts begin to
develop.

Begin to have
periods

Body becomes
curvier

Skin becomes
greasy – may get
spots

Periods (Worksheet 7.5)

- Also known as the menstrual cycle
- Occurs every 28 days.
- Lasts about 5 days.

Periods

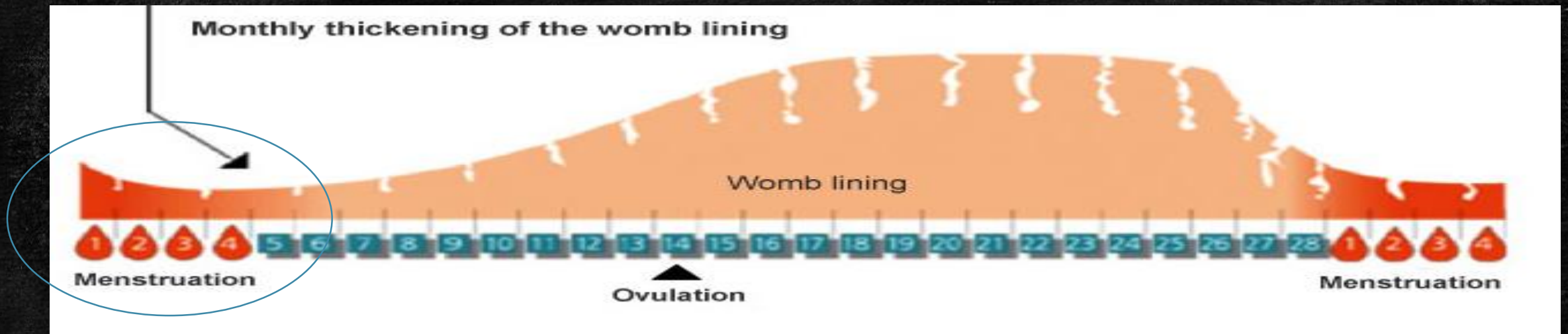
- ❖ An egg is released on day 14
- ❖ Day 6-28 the uterus lining thickens
- ❖ Day 1-5 uterus lining breaks down and is released with the unfertilised egg.



Day 1-5

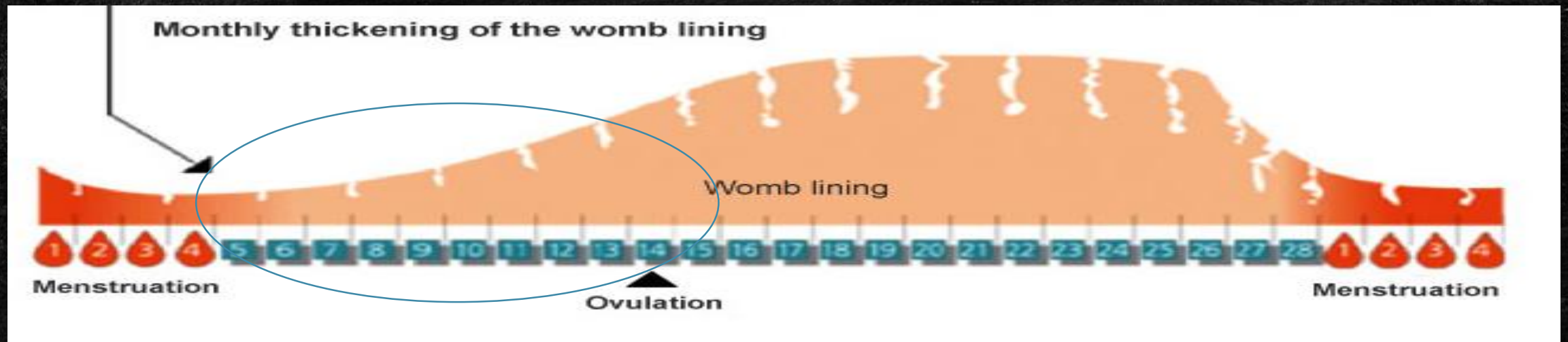
- Menstruation (having a period)

Soft lining of uterus breaks down → passes out of vagina with little bit of blood

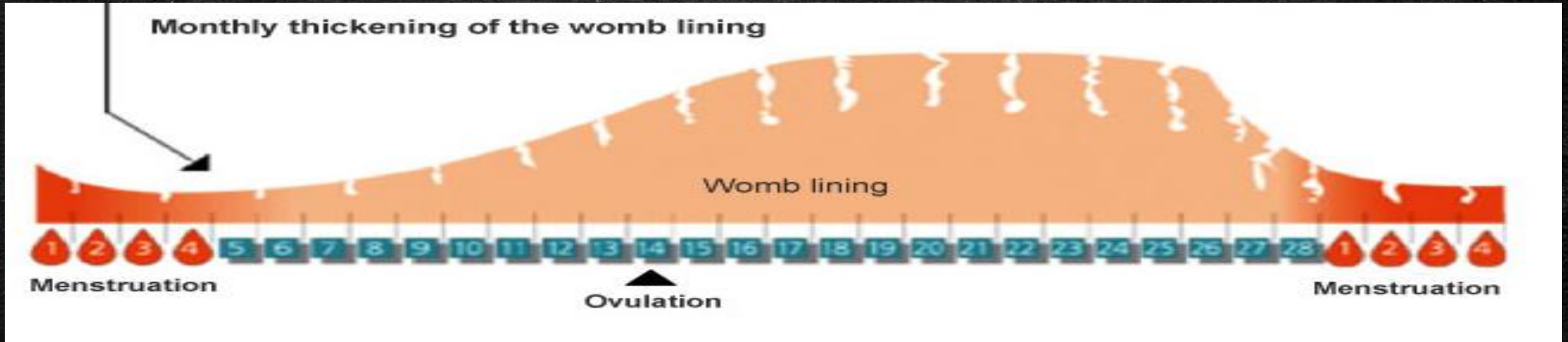


Day 6-13

Immediately after menstruation, an egg starts to mature in the ovary → soft lining of uterus starts to build up → around day 14 egg is released



Day 14



An Egg is released from the ovary.

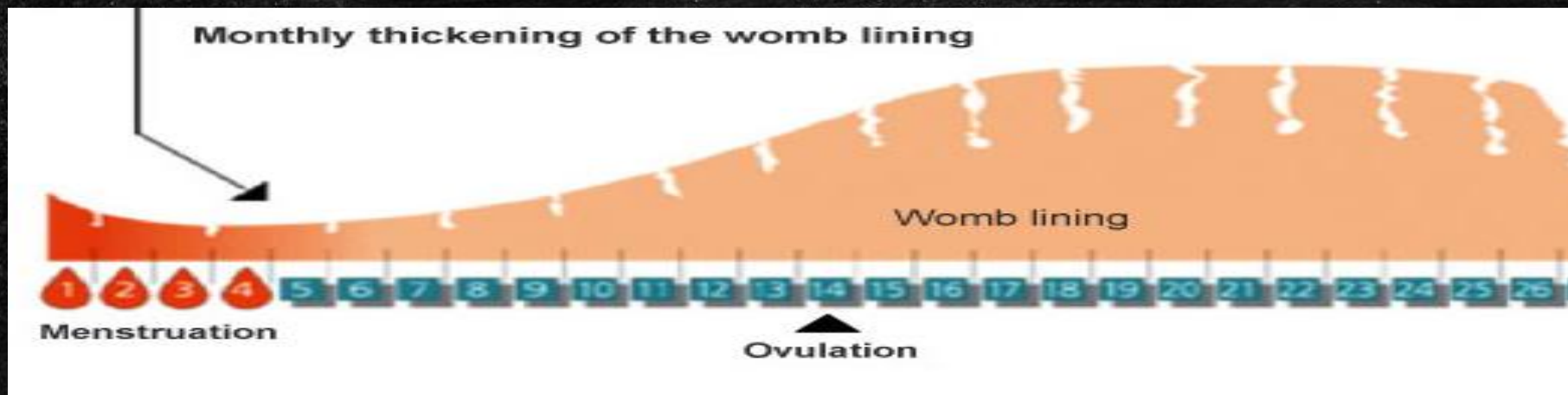
Day 15-28

- Fertilisation v no fertilisation

Egg swept along the ovary towards the uterus

If meets a sperm → egg cell is fertilised and the woman is now pregnant. Cycle stops

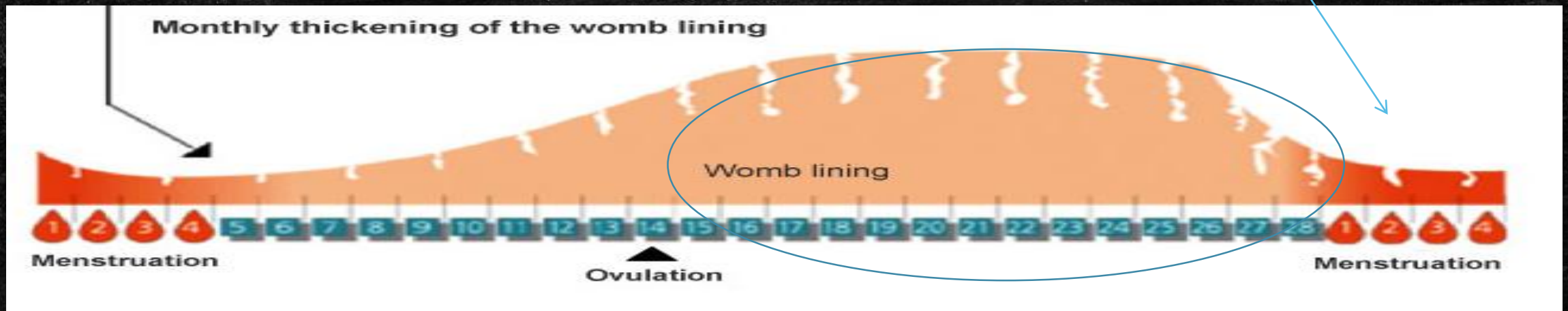
If no sperm cell →



Day 15-28

- Fertilisation v no fertilisation

No sperm = egg not fertilised → cycle starts again with another 'period'













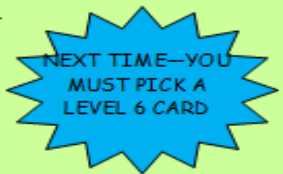









The Menstrual Cycle

- Complete appropriate worksheet (see folder).

Revision.

The Great Sperm Race

4.  Mitochondria boost- move forward 3 STEPS	5.	6.  BLOCKED FALLOPIAN TUBE—GO BACK TO #4	7.  NEXT TIME—YOU MUST PICK A LEVEL 6 CARD	8. landed on a white blood cell—go back 3 STEPS 	9.  Mitochondria boost- move forward 3 steps
3. landed on a white blood cell—go back to the start 	20.	21. Wrong ovary! Miss a go 	22.	23.  SHOUT ' I LOVE SCIENCE'	10.
2.	19.  NEXT TIME—YOU MUST PICK A LEVEL 6 CARD	28. landed on a white blood cell—go back to the start 	EGG END! 	24.	11.  BLOCKED FALLOPIAN TUBE—GO BACK TO #4
1.  NEXT TIME—YOU MUST PICK A LEVEL 6 CARD	18.  Mitochondria boost- move forward 3 steps	27.  NEXT TIME—YOU MUST PICK A LEVEL 6 CARD	26. landed on a white blood cell—go back 4 STEPS 	25. landed on a white blood cell—go back to the start 	12.
SPERM START 	17.	16.  BLOCKED FALLOPIAN TUBE—GO BACK TO #4	15.	14.  SHOUT ' I LOVE SCIENCE'	13. landed on a white blood cell—go back to the start 