

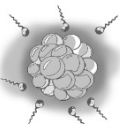

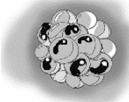


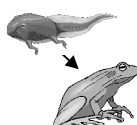
Life Cycle of a Frog



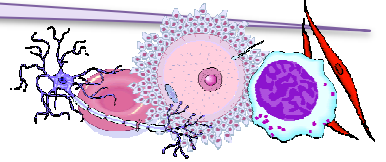
The meeting of sperm and egg is vital to sexual reproduction. This joining of these two sex cells is called fertilisation; it results in the creation of a new life. Some species use external fertilisation, where eggs are shed by the female and fertilised by the male in the environment. Other species use internal fertilisation, where sperm are deposited in or near the female so that fertilisation occurs inside her body.

Task

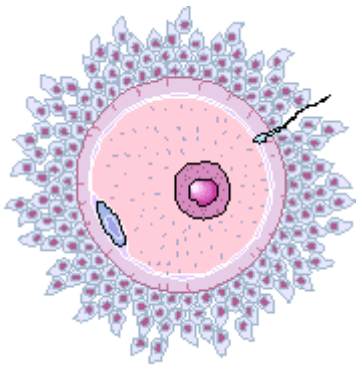
The information below outlines six steps during the life cycle of a frog. Match each number with the relevant picture and description. Alternatively, you may cut out the numbers, pictures and descriptions, then lay them out in the correct order.

	Picture	Description
1		The frog embryo receives its nutrients from the yolk.
2		Tadpoles grow front and hind legs.
3		The sperm fertilises the egg.
4		Adult female frog lays eggs near a male frog.
5		The tadpoles grow into adults through a process called metamorphosis.
6		Frog eggs hatch and tadpoles emerge.

The Ovum



An ovum is a female sex cell or gamete. It must fuse with the male sex cell (sperm) during fertilisation to make a new individual.



Labels

- Nucleus
- Cytoplasm
- Vitelline membrane
- Zona pellucida
- Sperm

Key Words

- | | |
|---------------|------------|
| Chromosome | Cloning |
| Ovum | Ovary |
| Ovulation | Fraternal |
| Fertilisation | Identical |
| In-vitro | Haploid |
| Menstruation | Polyspermy |

Research Ideas

- How many chromosomes does a human ovum carry?
- Where are ova produced in the body?
- How long can the ovum survive after ovulation?
- Explain the process of in-vitro fertilisation.
- Describe the passage of an ovum from ovulation to menstruation.

Advanced Research

- How does the ovum prevent more than one sperm entering at a time?
- Describe how identical twins are formed.
- Describe how fraternal (non-identical) twins are formed.
- Explain how *Dolly the Sheep* was cloned.

Presentation Ideas

- Create a wall display with diagrams and facts.
- Give a talk to your class.
- Write and perform a poem, play or song.
- Tell a story.
- Create a Prezi or PowerPoint.
- ...

Internet Search Terms

- "sex cell has" + chromosomes
- "ova are produced in"
- "ovum can survive"
- "in-vitro fertilisation is"
- passage + ovum + ovulation

Webpages

- kids.kiddle.co/Ovum
- www.howstuffworks.com/human-reproduction4
- [en.wikipedia.org/wiki/Cell_\(biology\)](http://en.wikipedia.org/wiki/Cell_(biology))
- en.wikipedia.org/wiki/Ovum
- www.youtube.com/watch?v=CuxaXghfyeE

A Perfect Home^{LA}

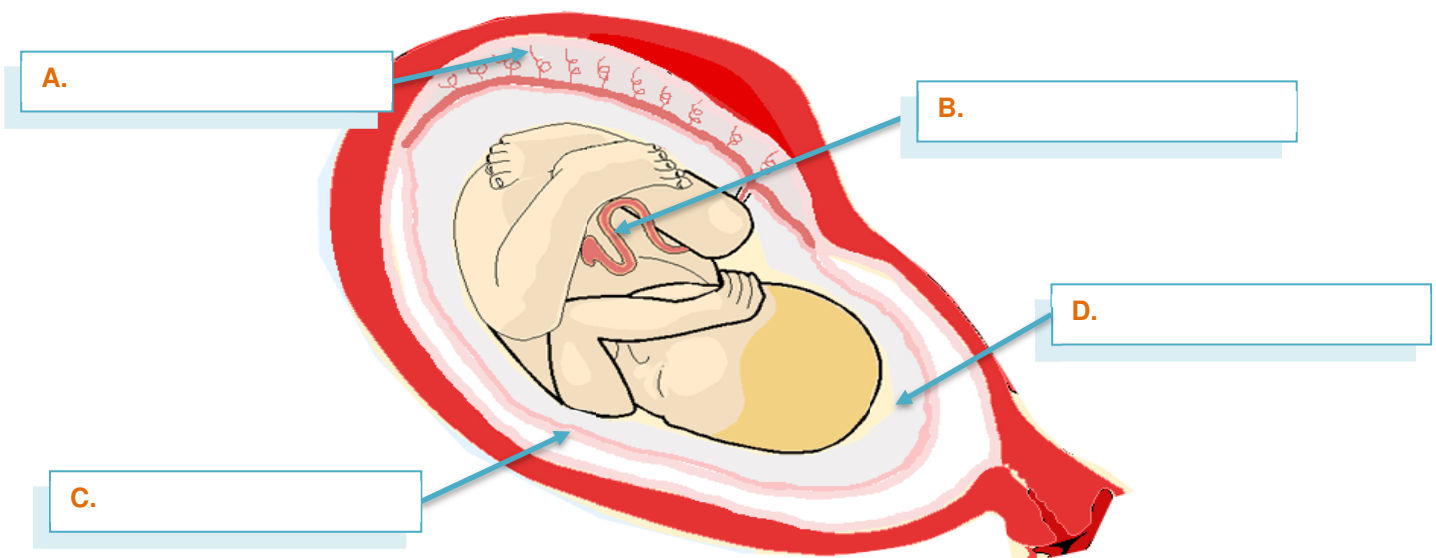


The protective environment of the mother's womb provides a perfect home for a developing baby. Many specialised tissues and organs work together to supply the baby with essential nutrients and prevent it from being harmed.

1. Cut out the structure names and functions. Stick each name with the correct function.

Structure	Description of function
Umbilical Cord	This protects the baby from bumps.
Amniotic Sac	This connects the baby to the placenta. It holds the blood vessels which transport substances between mother and baby.
Placenta	This surrounds the developing foetus and holds in the amniotic fluid. It also ensures that the foetus is not exposed to infection from the vagina.
Amniotic Fluid	This provides the baby with food from the mother's body and helps it get rid of waste products such as carbon dioxide.

2. Cut out and label the diagram below. Use the names from the previous task.



Menstrual Cycle



Menstrual Cycle

<i>menstruation</i>	<i>egg</i>	<i>ovary</i>	<i>menstrual</i>	<i>uterus</i>	<i>fertilised</i>	<i>maturation</i>
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Egg _____ is when an egg becomes ready for release from the _____.

At this time, the _____ prepares for possible pregnancy. If, after ovulation, the newly released egg is not _____ then it is expelled through the vagina along with the lining of the uterus (_____). Another _____ then matures. These events repeat roughly every 28 days in what is known as the _____ cycle.

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