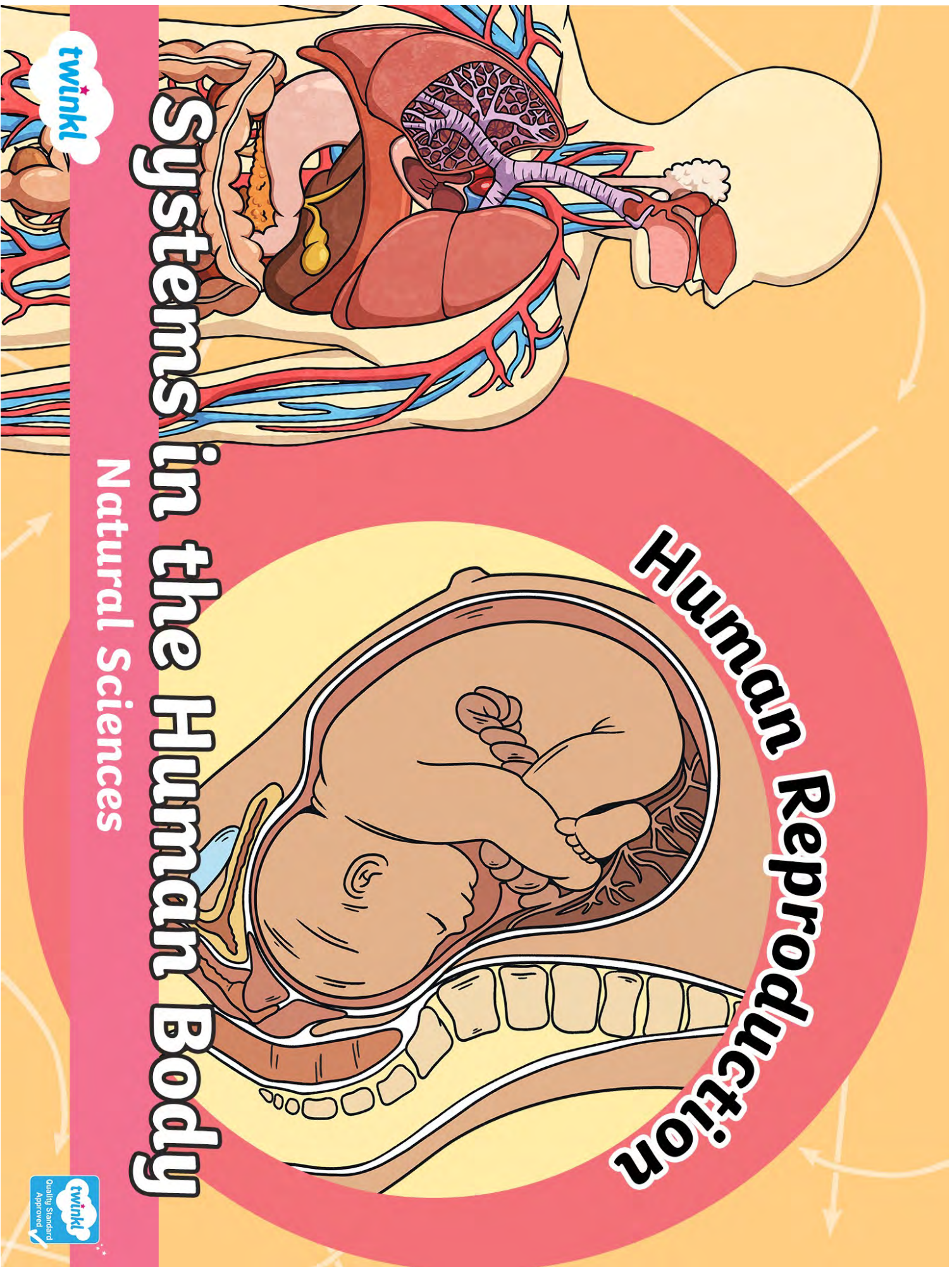


Human Reproduction

Systems in the Human Body

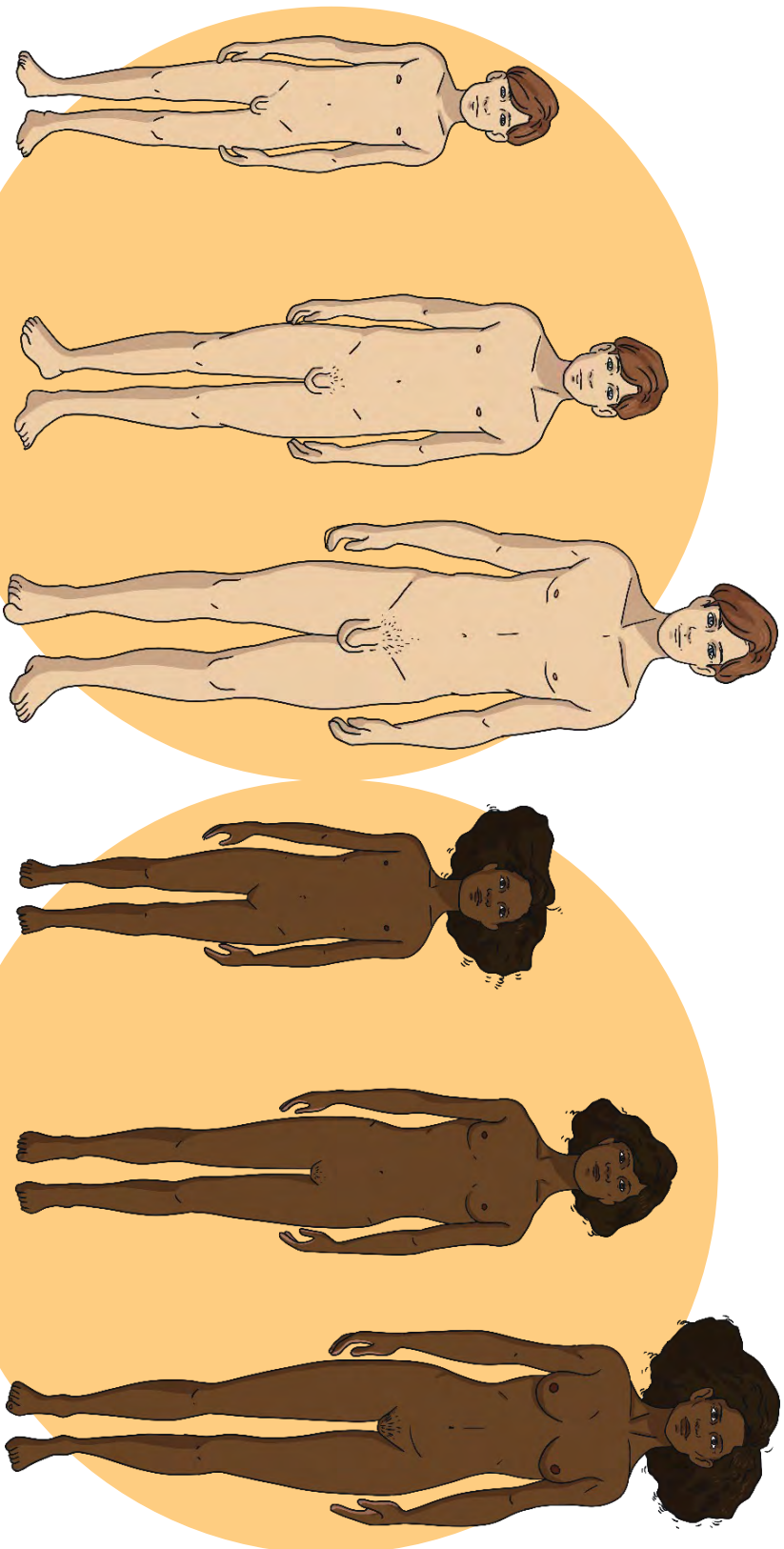
Natural Sciences



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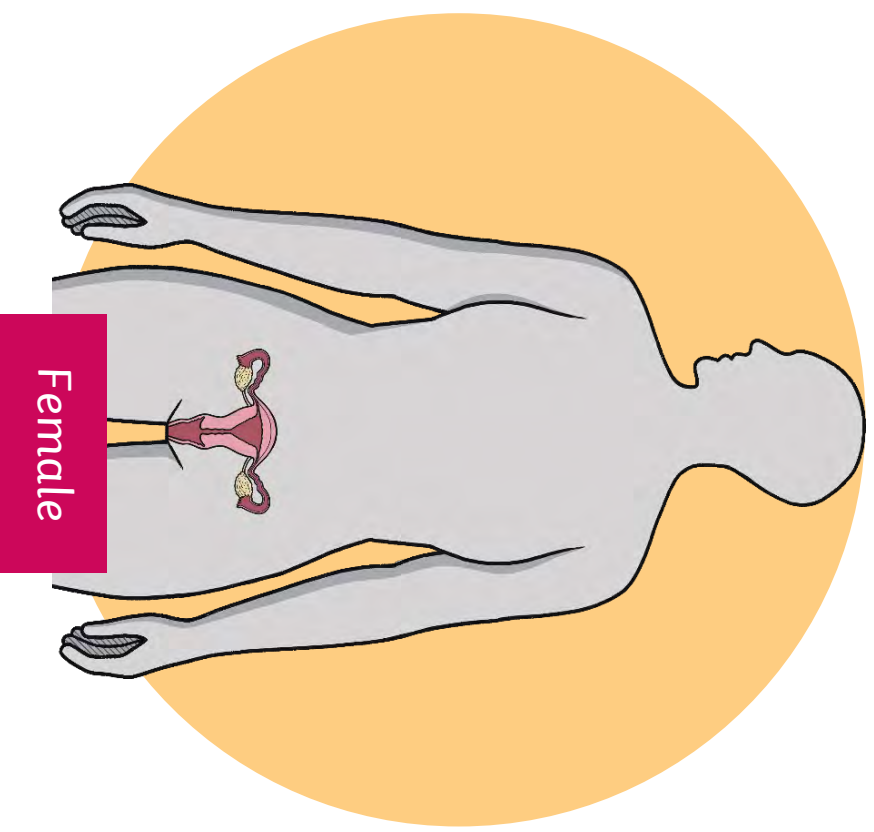
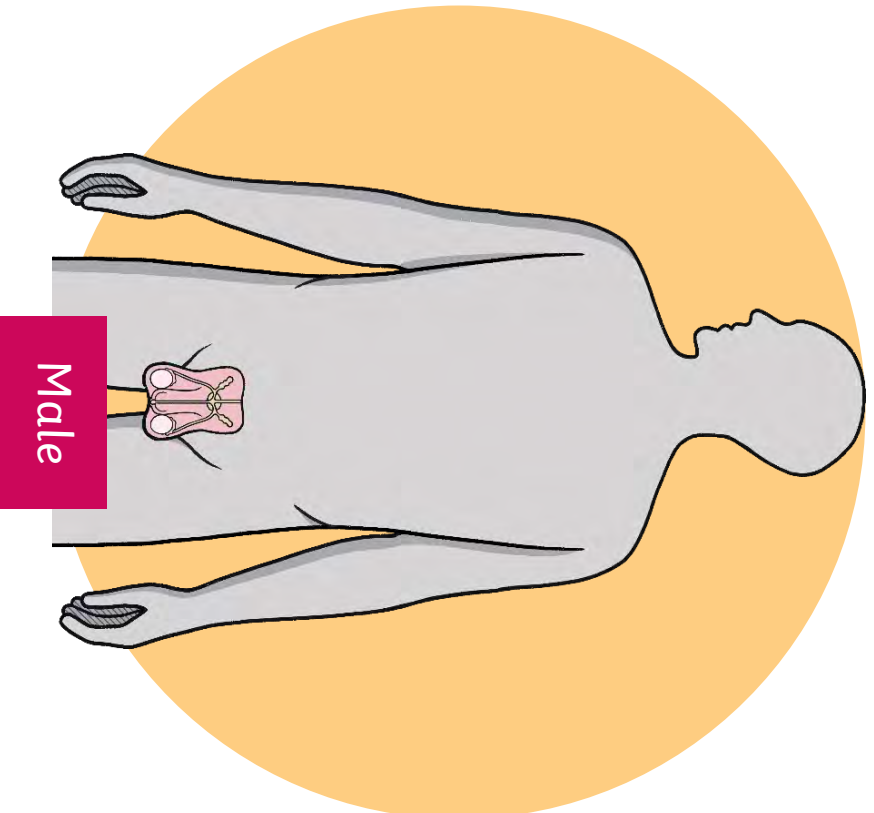
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Quality Standard
Approved

Purpose & Puberty



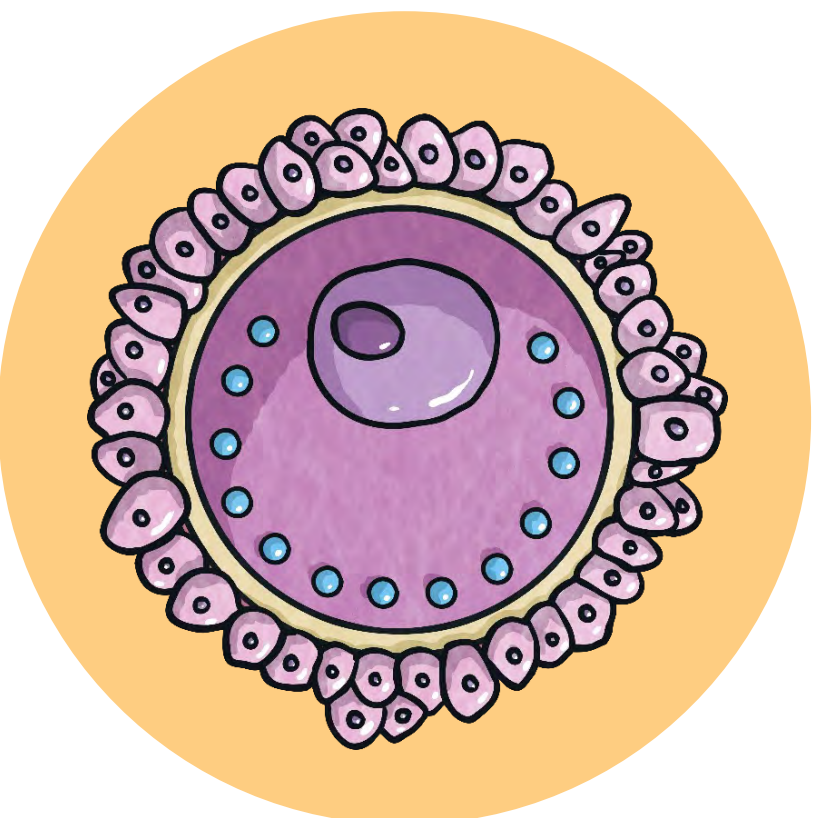
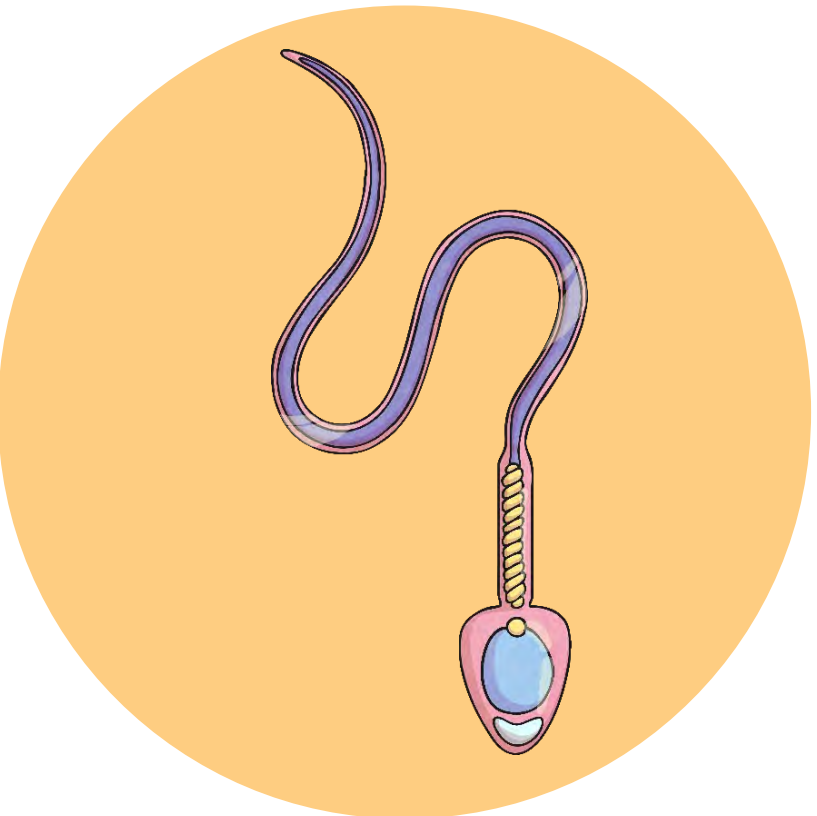
The Purpose of Reproduction

- Humans need to reproduce to ensure the survival of the species.



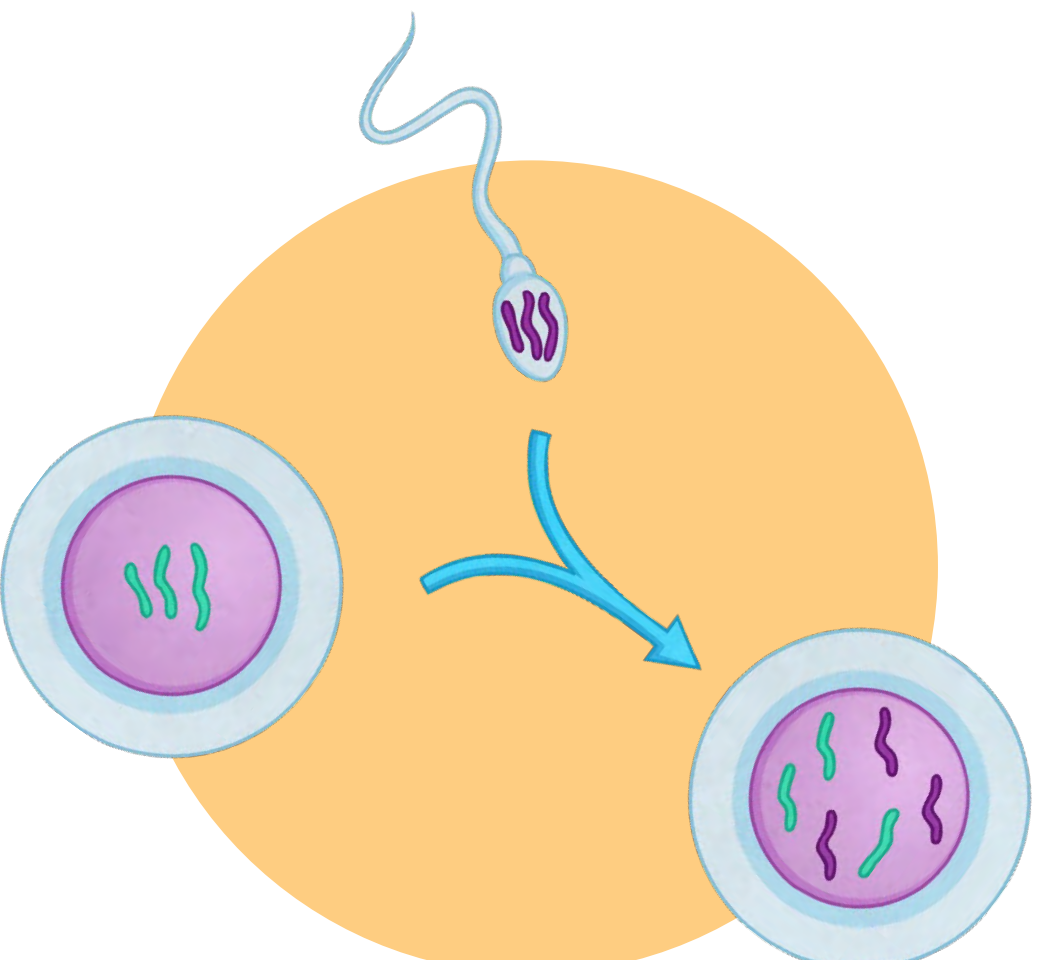
What is the purpose of puberty?

- Men have to produce sperm and make sure that they come into contact with a female egg cell.
- Women produce and store egg cells that can be fertilised by a male sperm cell.



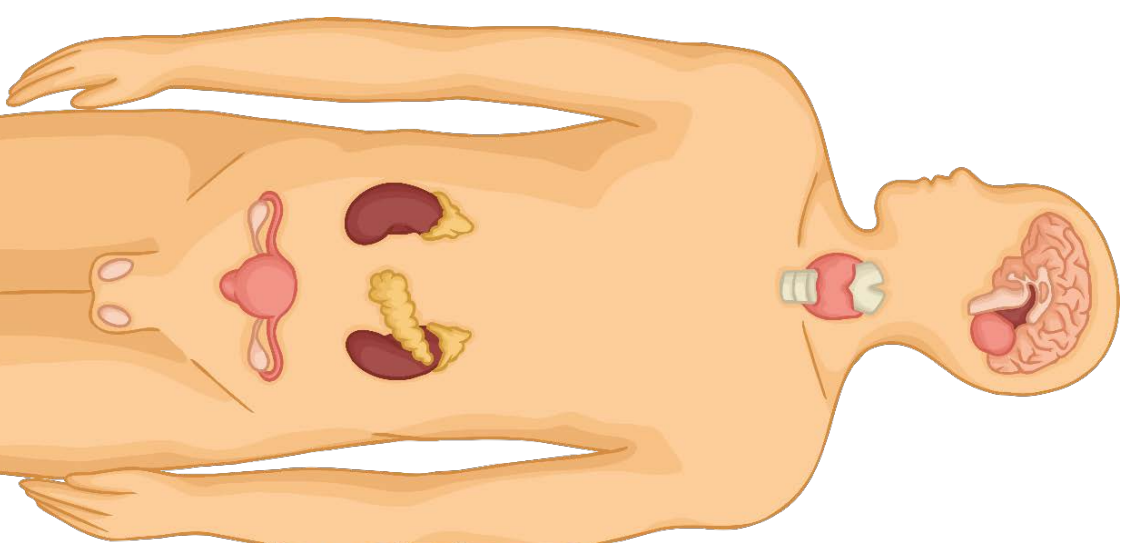
What is the purpose of puberty?

- Children's bodies and sexual organs are not mature yet and can't perform the reproductive function.
- A child's body develops and changes during puberty.
- To allow the body to produce sex cells, the sexual organs need to mature.
- These sex cells are called **gametes**.



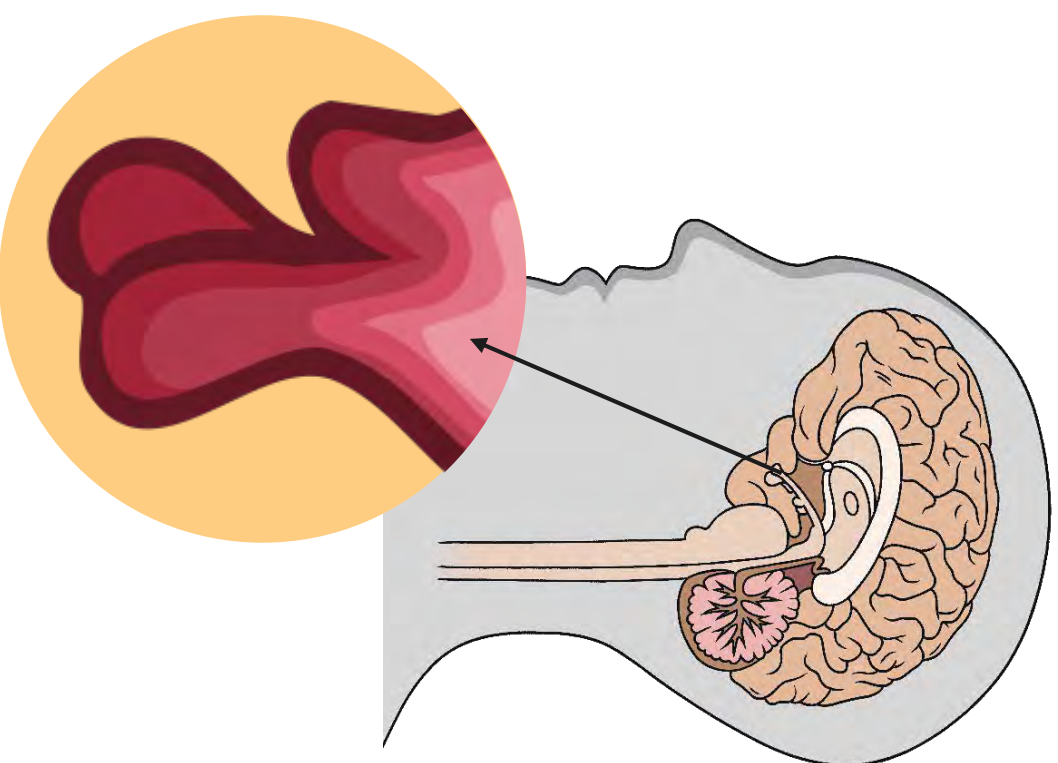
How does puberty start?

- Puberty is when we become capable of sexual reproduction.
- Girls and boys don't go through puberty at the same time.
 - Puberty happens between 8 and 13 years for girls and 9 and 14 years for boys.
- Many of the complex actions that take place in our bodies are controlled by hormones.
- Different glands in our bodies produce hormones.



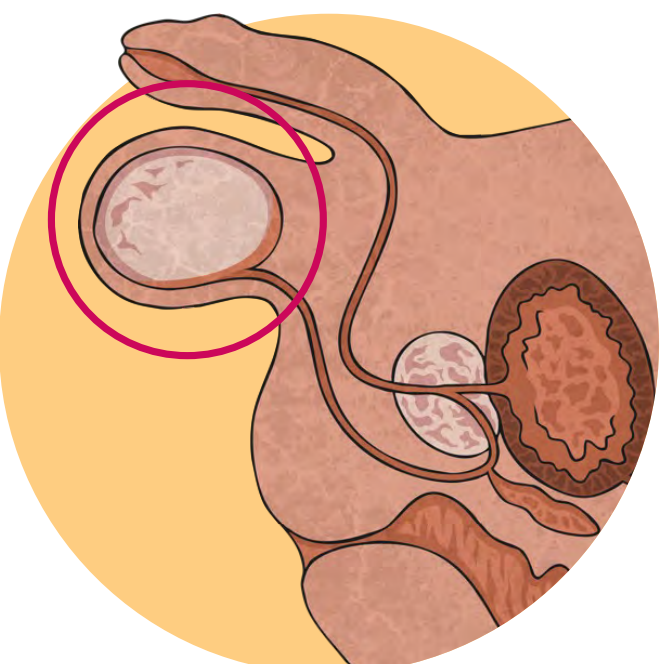
How does puberty start?

- The **pituitary gland** controls most of the body's hormones and hormonal activities.
- It's about the size of a pea and located at the base of the brain.
- When the pituitary gland releases specific hormones into the bloodstream, puberty starts.
- These hormones travel to the undeveloped sex organs and signal the hormones in these to be released.



How does puberty start?

- In females, the ovaries are stimulated to release the hormone called **estrogen**.
- In males, the testes are stimulated to release the hormone called **testosterone**.



- These hormones start all the bodily changes that we experience during puberty.

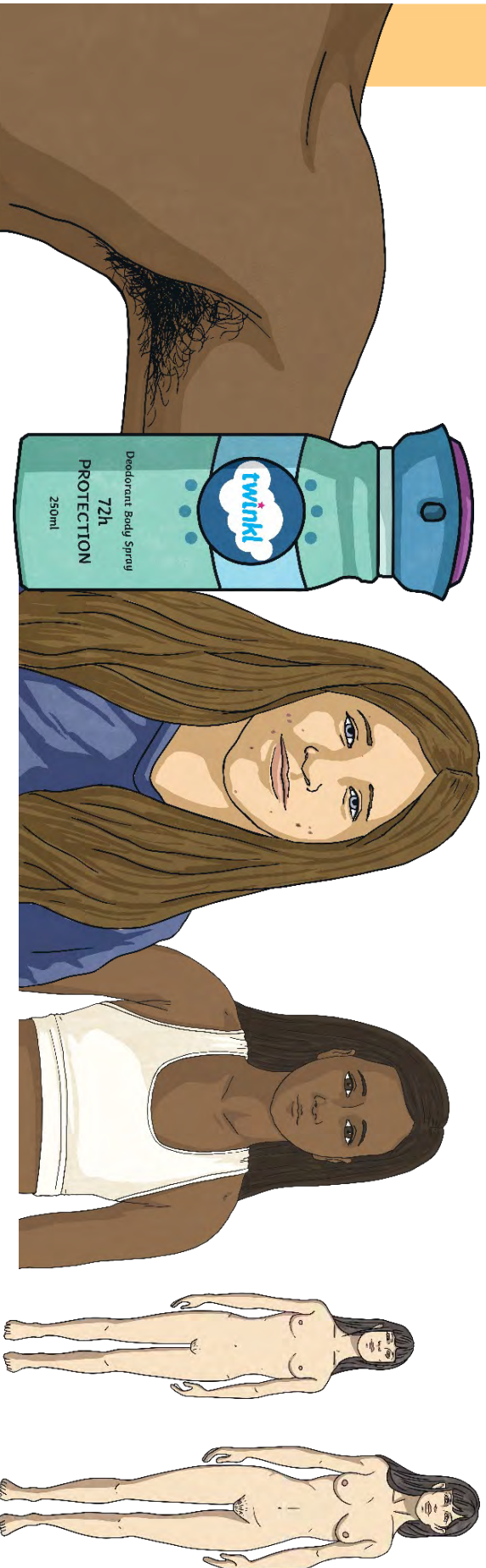
What changes during puberty?

- The main purpose is for the sexual organs to mature.
- The hormones that are released from the reproductive organs also start other changes in the human body.
- These changes are called **secondary sexual characteristics**.



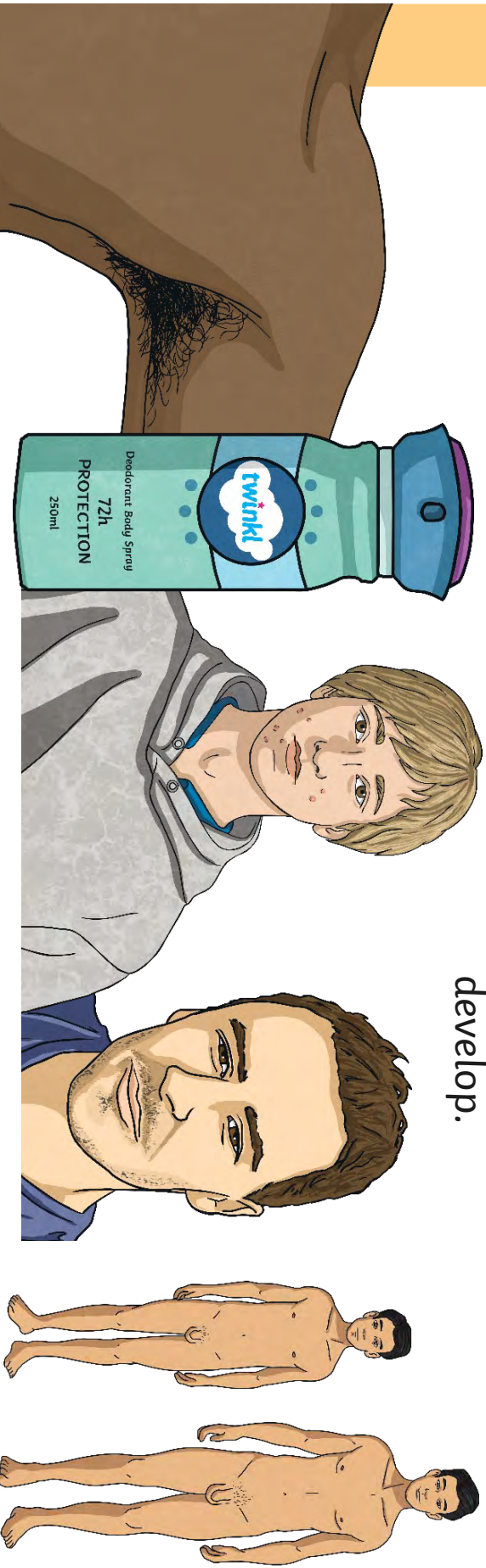
What changes during puberty?

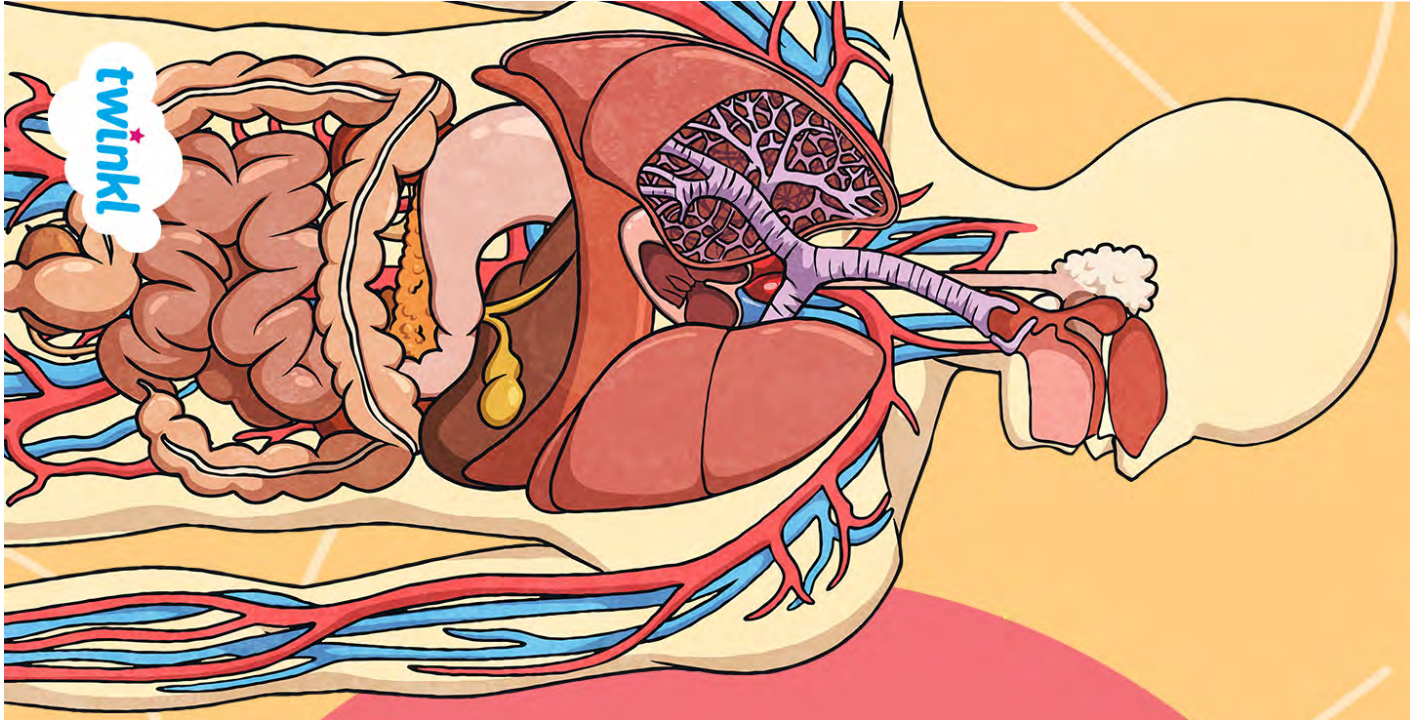
- Puberty causes the following secondary changes in **females**:
 - **Breasts** start to develop and can be used for breastfeeding a baby.
 - **Pubic and underarm hair** starts to grow.
 - **Menstruation** occurs in a monthly cycle once you reach puberty.
 - **Body shape** can change due to the estrogen in the body.
 - **Body odour and acne** develop because more oil is secreted.
 - The **smell of sweat** changes.



What changes during puberty?

- At the start of puberty, boys are about 2 cm shorter than girls, yet adult men are approximately 13 cm taller than adult women.
- Puberty brings about the following secondary changes in **males' bodies**:
 - **Testicle and penis size** increases.
 - **Hair** starts to grow on the pubic areas, limbs, chest, and face.
 - **Voice** becomes deeper as the larynx grows.
 - **Body shape** changes as the skeletal muscle and bones increase in size and shape.
 - **Body odour and acne** start to develop.





Human Reproduction

