



What is intellectual (cognitive) development?

Intellectual (cognitive) development is the way in which an individual's thinking and reasoning grows and develops across their lifespan.

Infancy (0–2 years) and childhood (3–10 years)

Examples of intellectual (cognitive) development during infancy and childhood include:

- **Memory:** For example, remembering how to wash their hands.
- **Problem-solving and reasoning:** For instance, figuring out how to stack blocks to build a tower and explaining the actions in a different way.
- **Concentration:** Such as focusing on a story being read to them.
- **Language:** Moving from babbling to forming sentences.

Two key theories help explain intellectual development: Piaget's theory of cognitive development and Kohlberg's theory of moral development.

Intellectual development in adolescence and adulthood (11–64 years)

During adolescence and into adulthood, intellectual abilities become more advanced. Thinking becomes more complex, allowing for a deeper understanding of knowledge. Individuals develop the ability to think abstractly, which means they can consider complex ideas, hypothetical situations and other people's perspectives (empathy). This is reflected in the later stages of Piaget's and Kohlberg's theories, where logical thought and systematic planning become possible.

Piaget's stages of cognitive development

Piaget's theory suggests that children think differently to adults. He proposed that cognitive development occurs in four stages.

Cognitive stage	How we think and learn during this stage
Sensorimotor (0–2 years)	Infants learn through their senses and actions. They develop an understanding that objects still exist even when they cannot be seen.
Pre-operational (2–7 years)	Children use language, mental images and imagination to understand the world. They might talk to their toys as if they are human beings with feelings.
Concrete operational (7–11 years)	Children can work things out mentally with the use of memory and imagination rather than having to see everything in action. They also start to become more aware of other people's thoughts and feelings.
Formal operational (12+ years)	Adolescents and adults can think abstractly, reason through hypothetical problems, and think about moral, philosophical and social issues. Empathy and complex problem-solving skills increase.

Intellectual development in later adulthood (65+ years)

In later adulthood, individuals often continue to learn and develop.

- **Gaining new knowledge:** Many pursue new hobbies, skills or qualifications.
- **Sharing knowledge and wisdom:** Life experience allows them to share valuable knowledge and insight with family, friends and the community.

Keeping the brain active through learning and socialising is vital for well-being. The effects of ageing can include some changes to short-term memory and a slower speed of processing new information.

Kohlberg's theory of moral development

Kohlberg's theory argues that our intellectual development is linked to our moral development – how we learn what is right and wrong. He proposed three levels of moral reasoning.

Moral development stage	How we think and learn during this stage
Pre-conventional morality (0–9 years)	Moral development is shaped by adults in their life and the consequences of actions. Behaviour is guided by avoiding punishment and gaining rewards.
Conventional morality	An individual accepts society's rules and laws. Right and wrong are determined by gaining others' approval and maintaining social order.
Post-conventional morality	They recognise that whilst rules and laws exist, they may not benefit.

Different aspects of intellectual (cognitive) development

