

Exercise walk-through

3.2

Physical Development Across the Lifespan

AP Psychology

Development before birth and early motor skills

Teratogens

Agents such as alcohol can affect prenatal development. Maternal illness, genetic mutations, hormonal and environmental factors can also matter.

Fine and gross motor coordination

Grasping a pencil uses small coordinated movements; walking uses larger muscle groups. General sequences are similar, but timing varies.

A risk factor is not a guarantee of one outcome. A single classroom observation cannot establish a clinical judgement.

Reflexes and the visual cliff

Rooting reflex

A newborn turns towards a touch on the cheek. Reflexes provide information about early development.

Depth perception

The visual cliff creates an apparent drop beneath a supported surface. Responses provide evidence about early depth perception.

Avoiding an apparent drop does not by itself prove fear is entirely innate. Experience and the task also matter.

Critical periods and sensitive periods

Critical period

A limited window when particular input is necessary for typical development of a function.

Sensitive period

A period of increased responsiveness when experience has a strong effect; learning can still occur later.

Some animals show imprinting in an early window. This does not make all human attachment an imprinting process.

Physical development continues across the lifespan

Development	Description
Adolescence and puberty	Growth spurt and development of reproductive ability; timing varies.
Primary / secondary characteristics	Reproductive organs and their development / changes such as voice and body hair.
Menarche / spermatarche	First menstrual period / first ejaculation.
Adulthood	Mobility, flexibility, reaction time and sensory acuity can change at different rates; menopause concerns reproductive change.

Physical change does not imply identical decline in every ability or the end of learning and social development.

Exercises 2.1-2.2

2.1 Define a teratogen and give one example.

[2]

2.2 Explain why the timing of an exposure matters as much as the dose.

[2]

Exercises 2.1-2.2

2.1 Define a teratogen and give one example.

[2]

2.1

- an agent that can cross the placenta and disrupt prenatal development; e.g. alcohol

2.2 Explain why the timing of an exposure matters as much as the dose.

[2]

2.2

- a structure is vulnerable while it is forming, so the same exposure produces different damage depending on when it occurs

Exercise 2.3 (a)

2.3 Two infants walk at 10 and at 15 months.

(a) State what is fixed across infants.

[1]

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(a) State what is fixed across infants.

[1]

(a)

- the sequence of motor milestones

Exercise 2.3 (b)

2.3 Two infants walk at 10 and at 15 months.

(b) State what varies.

[1]

Exercise 2.3 (b)

2.3 Two infants walk at 10 and at 15 months.

(b) State what varies.

[1]

(b)

- the age at which each is reached

Exercises 3.1-3.2

3.1 In adolescence, the brain regions supporting planning and impulse control mature^[1]

☐

A before reward-sensitive regions

B after reward-sensitive regions

C at exactly the same time

D only after age 40

3.2 In late adulthood, the abilities usually best preserved are

^[1]

☐

A reaction speed

B vocabulary and well-practised knowledge

C hearing acuity

D muscle mass

Exercises 3.1-3.2

3.1 In adolescence, the brain regions supporting planning and impulse control mature^[1]

- ☐ **A** before reward-sensitive regions
B after reward-sensitive regions
C at exactly the same time
D only after age 40

3.1 B

- prefrontal maturation lags behind reward-sensitive development

3.2 In late adulthood, the abilities usually best preserved are ^[1]

- ☐ **A** reaction speed
B vocabulary and well-practised knowledge
C hearing acuity
D muscle mass

3.2 B

- crystallised knowledge is typically preserved while speed declines

Exercise 3.3 (a)

3.3 A public health campaign targets alcohol use in early pregnancy.

(a) State the reason for targeting that period.

[1]

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(a) State the reason for targeting that period.

[1]

(a)

- major structures form early, so exposure then does the most damage

Exercise 3.3 (b)

3.3 A public health campaign targets alcohol use in early pregnancy.

(b) Explain one difficulty in measuring the campaign's effect.

[2]

Exercise 3.3 (b)

3.3 A public health campaign targets alcohol use in early pregnancy.

(b) Explain one difficulty in measuring the campaign's effect.

[2]

(b)

- self-reported drinking is unreliable and other influences on outcomes cannot be controlled, so any change is hard to attribute to the campaign