HUMAN DEVELOPMENT · STUDY GUIDE

Exam 5 Study Guide

This guide covers chapters 9 and 10, the adolescent years. First the body and mind: puberty, a brain with a strong accelerator and unfinished brakes, health risks and a new power to think about the possible. Then identity and relationships: the search for self, the renegotiation of family life, the pull of peers, values and resilience. Work one chapter at a time. Read the "what to know" paragraphs, copy the tables out by hand, then try each worked case with the steps covered. Finish each chapter with its ten self-test items. The cram sheet at the end puts every term and number in one place.

WHAT THIS GUIDE COVERS

- Chapter 9 · the HPG axis (GnRH, LH, FSH), adrenarche and gonadarche; primary and secondary sex characteristics, Tanner stages and the growth spurt; timing, the secular trend and early maturers; the dual-systems brain, pruning and myelination, the peer effect; calcium, iron, sleep and the leading causes of death; formal operations and hypothetico-deductive reasoning; the imaginary audience and personal fable.
- Chapter 10 · identity vs. role confusion and the moratorium; Marcia's four statuses; emotional, behavioral and value autonomy; conflict and Baumrind's styles with monitoring; friendship intimacy, cliques and crowds, conformity and two kinds of popularity; heteronomous to autonomous morality, Kohlberg and Gilligan; the dual-systems model, risk and protective factors and resilience.

CHAPTER 9

Adolescence: Body and Mind

Read it in full: **Chapter 9 in the textbook**. Practice it in the lab: **Puberty Sequence** and **Pendulum Problem**.

What to know

Puberty is the biological process that makes reproduction possible, and it starts in the brain. The hypothalamus releases pulses of **GnRH**, which signal the pituitary to release **LH** and **FSH**. These act on the gonads (ovaries or testes) to raise **estrogen** and **testosterone**. This chain is the **HPG**

axis. Earlier, **adrenarche** (adrenal maturation, around ages 6 to 8) supplies the first androgens behind body odor and early hair. The main event, **gonadarche**, is the awakening of the gonads.

Primary sex characteristics involve the reproductive organs directly; their landmarks are **menarche** (first period) and **spermarche** (first ejaculation of sperm). **Secondary sex characteristics** are outward signs not needed for reproduction: breast development, pubic and underarm hair, voice deepening, facial hair and changes in fat and muscle. Clinicians track the sequence with the five **Tanner stages**. The **growth spurt** is the fastest growth since infancy, and hands and feet grow first.

Girls begin puberty about a year before boys (girls around 10 to 11, boys around 11 to 12), and at peak height growth the visible gap is closer to two years. The normal range spans several years, and onset has moved earlier over the past century, the **secular trend**, linked to better nutrition and higher body fat. What matters most is timing compared with peers. **Early-maturing girls** face the greatest risk: more body dissatisfaction, anxiety, depression and early substance use, because the world treats them as older than they are ready to be. Early-maturing boys are often admired but may drift toward older peers and risk. Late-maturing boys may feel overlooked, though many catch up.

The **dual-systems model** explains adolescent risk. The **socioemotional system** (limbic structures such as the amygdala and nucleus accumbens) becomes highly active early, around puberty, and drives reward-seeking. The **cognitive-control system** (the prefrontal cortex) matures slowly, not fully until the **mid-twenties**. For several years, a sensitive accelerator is paired with brakes still being installed. Underneath, **synaptic pruning** removes unused connections and **myelination** speeds signals, moving back to front and reaching the prefrontal cortex last. Dopamine shifts heighten the pull of reward.

Peers change the math. In driving-simulation studies, teens took roughly **twice as many risks** with peers in the room, while adults did not change, and the reward system lit up. **Cold cognition** (calm reasoning) and **hot cognition** (decisions in the heat of emotion and social arousal) can give different answers. The same plasticity that makes adolescence risky also makes it a second great window for learning.

The growth spurt raises needs for **calcium** and vitamin D, which largely set **peak bone mass**, and for **iron**, especially for girls after menarche. Eating habits often slip just then. Obesity becomes more common, and eating disorders such as anorexia nervosa and bulimia nervosa usually first appear in these years. Teens need about **8 to 10 hours** of sleep, but puberty brings a **circadian phase delay**: melatonin is released later, so early school times create chronic sleep debt, harming learning, mood, immunity and driving safety.

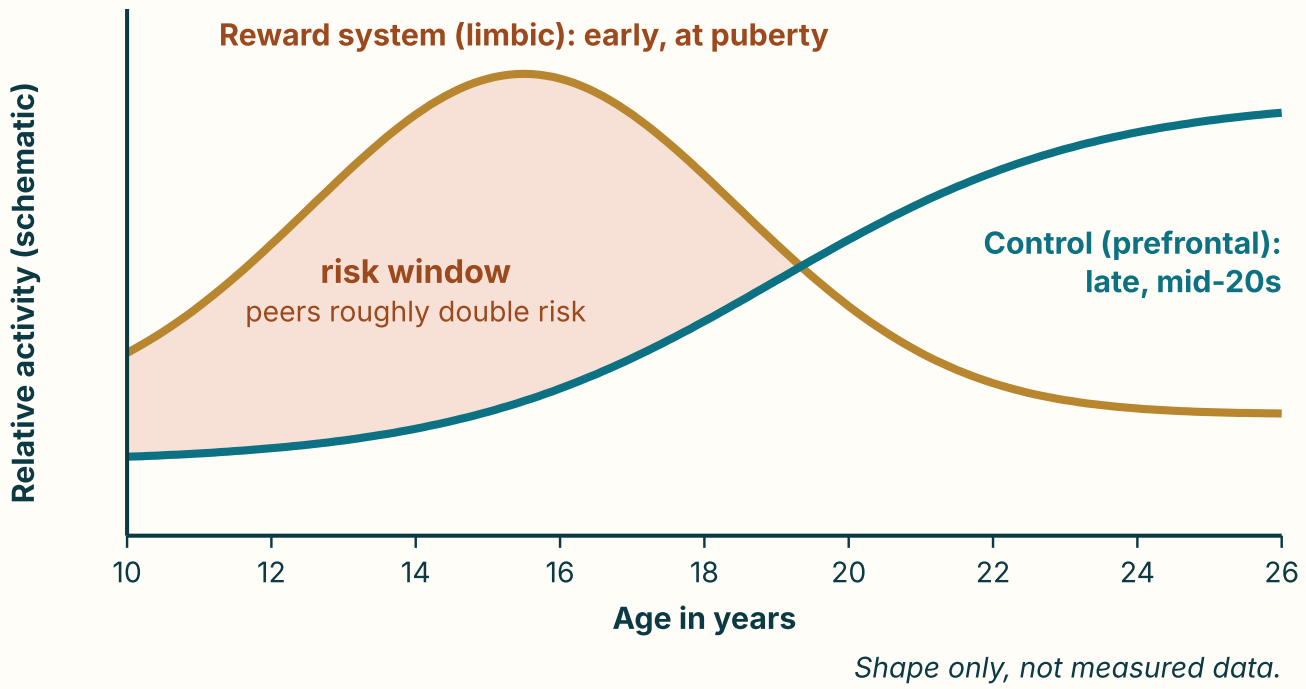
Adolescence is physically robust, yet the death rate rises over childhood because the main threats are behavioral. The leading causes of death are injury-related and largely preventable: unintentional injury (above all road crashes, and increasingly overdose), suicide and self-harm, and interpersonal violence. In the United States, firearm injury has been the leading cause of death for ages 1 to 19 since 2020. The still-maturing brain is more vulnerable to addiction. Protective factors are connected families, engaged schools and a caring adult.

Piaget's **formal operational stage** begins around 11. The adolescent can reason about the abstract and the hypothetical, what could be and not only what is. The hallmark is **hypothetico-deductive reasoning**: generate all possible explanations, then test them one variable at a time. In the **pendulum problem**, the formal thinker isolates each factor and finds that only string length matters. **Propositional thought** lets teens follow if-then logic. The stage is not universal or constant; it depends on education and culture and shows most in familiar domains. It also fuels idealism and a sharp eye for adult hypocrisy.

David Elkind described **adolescent egocentrism**: trouble separating one's own thoughts from others'. Newly able to imagine other minds, teens assume everyone is thinking about them. The **imaginary audience** is the feeling of being constantly watched and judged. The **personal fable** is the belief that one's experience is unique and no one understands. The linked **invincibility fable** says risks apply to others, not me, and feeds risk-taking. Both fade as perspective-taking matures.

LOCK THESE IN

- HPG axis: hypothalamus (GnRH), pituitary (LH, FSH), gonads (estrogen, testosterone). Adrenarche comes first, about 6 to 8.
- Primary: reproductive organs, menarche, spermarche. Secondary: breasts, hair, voice. Tanner stages 1 to 5.
- Girls start about a year before boys. Secular trend: earlier puberty over the past century.
- Early-maturing girls carry the most emotional and social risk.
- Dual systems: reward system early, prefrontal control late (mid-20s). Peers roughly double risk-taking.
- Calcium and vitamin D for peak bone mass; iron needs rise. Sleep need 8 to 10 hours; circadian phase delay.
- Leading causes of teen death are injury-related and preventable; US firearm injury leads since 2020 (ages 1 to 19).
- Formal operations (11 and up): abstract, hypothetical, hypothetico-deductive. Elkind: imaginary audience, personal fable.



Two brain systems on two clocks (schematic). The reward system surges around puberty while prefrontal control matures into the mid-twenties. The shaded gap is the risk window, made wider when peers are watching.

Key terms and comparisons

Term	What it means	Example
HPG axis	Hypothalamus to pituitary to gonads	GnRH, then LH and FSH, then sex hormones
Adrenarche	Adrenal maturation, ages 6 to 8	First body odor and hair
Gonadarche	Gonads awaken	The main hormonal surge
Menarche	First menstrual period	Primary characteristic
Spermarche	First ejaculation of sperm	Primary characteristic
Secular trend	Earlier puberty across generations	Better nutrition, higher body fat
Circadian phase delay	Melatonin released later at night	Can't fall asleep at nine
Hot vs. cold cognition	Emotional, social decisions vs. calm reasoning	Knows the risk on a quiz, speeds with friends
Hypothetico-deductive	Generate and test hypotheses systematically	Pendulum problem
Imaginary audience	Feeling watched and judged	Hours in front of the mirror

Two brain systems

System	Key regions	Matures	Drives
Socioemotional	Amygdala, nucleus accumbens (limbic)	Early, at puberty	Reward-seeking, emotion, peer sensitivity
Cognitive control	Prefrontal cortex	Late, into the mid-20s	Planning, impulse control, weighing consequences

Health and risk

Domain	What goes wrong	Why it matters
Nutrition	Low calcium and iron, more fast food, dieting	Peak bone mass, anemia, obesity, eating disorders
Sleep	Phase delay plus early schedules	Learning, mood, immunity, drowsy driving
Behavior	Risky driving, substances, firearm access, untreated distress	Leading, preventable causes of death

Elkind's two faces

Belief	The feeling	Everyday sign
Imaginary audience	"Everyone is watching and judging me."	Extreme self-consciousness
Personal fable	"No one understands me."	"You don't get it"
Invincibility fable	"It won't happen to me."	Risk-taking

Worked cases

WORKED CASE 1 · SOLVING THE PENDULUM LIKE A FORMAL THINKER

Lucia must find what controls how fast a pendulum swings: string length, weight, drop height or push. Lay out a formal-operational approach.

STEP 1 · LIST THE HYPOTHESES

Any of the four factors, alone or together, might matter.

STEP 2 · TEST ONE AT A TIME

Change only string length and keep weight, height and push the same. Then change only weight, and so on.

STEP 3 · READ THE RESULTS

Only changing string length changes the speed of the swing.

STEP 4 · CONTRAST THE CONCRETE THINKER

A concrete thinker changes several things at once and draws muddled conclusions. Systematic control of variables is **hypothetico-deductive reasoning**.

WORKED CASE 2 · TRACING THE HORMONE CHAIN

A clinician explains puberty to a family. Put the steps of the HPG axis in order and name the hormone at each step.

STEP 1 · THE BRAIN

The **hypothalamus** releases pulses of GnRH.

STEP 2 · THE PITUITARY

The **pituitary** answers with LH and FSH.

STEP 3 · THE GONADS

The **ovaries or testes** raise estrogen and testosterone.

STEP 4 · WHAT CAME BEFORE

Adrenarche, around 6 to 8, is separate and earlier; gonadarche is the main event.

WORKED CASE 3 · READING A RISKY CHOICE

Fifteen-year-old Malik scores perfectly on a driving safety quiz. A week later, with three friends in the car, he speeds through a yellow light. Explain using two ideas from the chapter.

STEP 1 · HOT AND COLD COGNITION

The quiz used calm **cold cognition**. Driving with friends is **hot cognition**, under emotion and social arousal.

STEP 2 · THE DUAL-SYSTEMS MODEL

With peers present, the early-maturing reward system lights up while the prefrontal brakes are still maturing.

STEP 3 · THE PERSONAL FABLE

"It won't happen to me" adds to the pull.

ANSWER

He knows the danger; the balance tips in the moment. Graduated licensing that limits teen passengers targets exactly this.

TRAPS PEOPLE FALL INTO

- **Thinking puberty starts in the gonads.** It starts in the brain, with GnRH from the hypothalamus.

- **Calling breast development primary.** It is secondary. Primary means the reproductive organs themselves.
- **Thinking early maturing is always an advantage.** Early-maturing girls face the most emotional and social risk.
- **Saying teens don't know risks.** They often rate risks like adults do; the reward system and peers tip the balance.
- **Placing full prefrontal maturity at 18.** It continues into the mid-twenties.
- **Blaming teen sleep only on screens.** A puberty-driven circadian delay pushes melatonin later.
- **Thinking teens die mostly of disease.** The leading causes are injury-related and largely preventable.
- **Treating formal operations as universal.** It depends on education and culture and is used inconsistently.

Chapter 9 self-test · ten items

1. Which gland releases GnRH to start puberty?

A. Pituitary
B. Adrenal gland
C. Hypothalamus
D. Thyroid

C. Hypothalamus The hypothalamus starts the HPG axis; the pituitary then releases LH and FSH.

2. Which is a primary sex characteristic?

A. Breast budding
B. Voice deepening
C. Underarm hair
D. Menarche

D. Menarche Primary characteristics involve the reproductive organs; menarche is a landmark.

3. The secular trend refers to

A. earlier puberty over generations
B. later puberty in boys only
C. the fixed order of Tanner stages
D. the shift of melatonin later at night

A. earlier puberty over generations Onset has moved earlier over the past century, linked to nutrition and body fat.

4. Which group faces the greatest risk from puberty timing?

A. Late-maturing girls
B. Early-maturing girls
C. Early-maturing boys
D. On-time boys

B. Early-maturing girls Their bodies outpace their readiness, drawing older attention and pressure.

5. Which brain region matures last?

A. Prefrontal cortex
B. Amygdala
C. Nucleus accumbens
D. Brainstem

A. Prefrontal cortex Myelination runs back to front, reaching the prefrontal cortex last, in the mid-twenties.

6. In driving studies, peers watching led teens to take

A. about the same number of risks
B. roughly twice as many risks
C. fewer risks than when driving alone
D. risks only when driving at night

B. roughly twice as many risks Peer presence amplifies the reward system in teens but not adults.

7. Why do many teens struggle to fall asleep early?

A. They need less sleep than children
B. Caffeine is their main problem
C. Melatonin is released later at night
D. Their growth spurt has ended

C. Melatonin is released later at night Puberty brings a circadian phase delay.

8. Which nutrient largely sets peak bone mass in adolescence?

A. Vitamin C
B. Iron
C. Sodium
D. Calcium

D. Calcium Calcium with vitamin D builds the bone that must last a lifetime.

9. The pendulum problem tests

A. object permanence
B. class inclusion
C. hypothetico-deductive reasoning
D. conservation of volume and weight

C. hypothetico-deductive reasoning Formal thinkers isolate one variable at a time.

10. "Everyone will notice my pimple." This shows

A. the imaginary audience
B. the personal fable
C. the invincibility fable
D. foreclosure

A. the imaginary audience Feeling constantly watched and judged is the imaginary audience.

CHAPTER 10

Adolescence: Identity and Relationships

Read it in full: **Chapter 10 in the textbook**. Practice it in the lab: **Identity Statuses** and **Risk And Resilience**.

What to know

Erikson's fifth stage is **identity vs. role confusion**. The task is to answer "Who am I, and where do I fit?" with values, goals and commitments that feel authored rather than inherited. Society grants a **psychosocial moratorium**, a time-out from adult commitments in which trying on roles is expected. Clubs, first jobs and shifting friend groups are the work, not a distraction. A firm identity is the foundation for the next stage, intimacy vs. isolation.

James Marcia crossed two questions: has the person **explored** alternatives, and has the person made a **commitment**? **Identity diffusion**: no exploration, no commitment. **Foreclosure**:

commitment without exploration, often an identity adopted from parents. **Moratorium**: exploring, not yet committed. **Identity achievement**: commitment after exploring. People can sit in different statuses in different domains and cycle back. Foreclosure can look mature but crack when challenged; moratorium can look chaotic but is often healthy at sixteen. Most people reach achievement in the late teens or twenties.

Two cognitive shifts power identity work. Formal operational thought lets teens imagine possible selves and compare the actual with the ideal. And Elkind's adolescent egocentrism brings the **imaginary audience** and the **personal fable**.

Adolescents pursue **autonomy** while mostly staying connected. **Emotional autonomy** means de-idealizing parents and relying on them less for every need. **Behavioral autonomy** means making and acting on independent decisions, including resisting bad suggestions. **Value autonomy**, the latest, means holding thought-through beliefs one can defend. The healthy path is **individuation**: becoming one's own person within a warm relationship. Attachment persists, and a secure teen uses a parent as a secure base.

Conflict rises in early adolescence but is mostly about mundane things (chores, curfews, screen time) and cools later. Baumrind's styles still apply. **Authoritative** parenting (high warmth, high reasoned control) predicts the best adjustment because it grants autonomy gradually, explains rules and invites the teen's voice. **Monitoring**, knowing where the teen is and with whom, works best when it flows from an open relationship the teen chooses to share with, not surveillance.

Friendship deepens into **intimacy**: self-disclosure, loyalty, support and trust. Harry Stack Sullivan saw the close "chumship" as a rehearsal for later intimacy. A **clique** is a small group of real friends (roughly 3 to 10) who spend time together. A **crowd** is a large, reputation-based category (athletes, brains, arts kids) that signals identity. Dexter Dunphy traced same-sex cliques linking into mixed groups as dating begins. **Conformity** peaks around ages 13 to 15, then declines. Peer pressure pushes toward good and bad alike, often indirectly. **Sociometric popularity** (well-liked) differs from **perceived popularity** (high status and visibility).

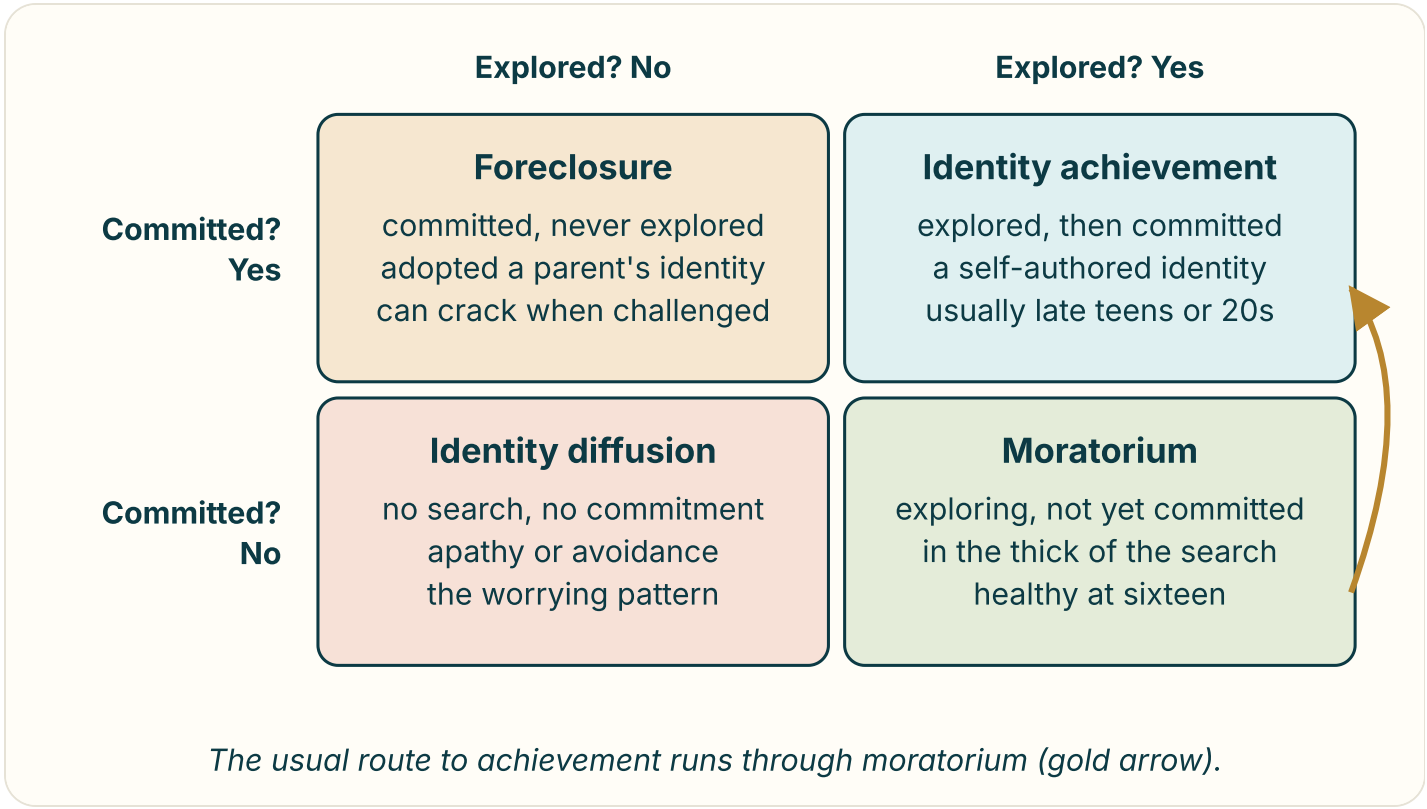
Piaget described a shift from **heteronomous** morality (rules fixed, judged by consequences) to **autonomous** morality (rules as agreements, judged by intention). Kohlberg's three levels:

preconventional (punishment, self-interest), **conventional** (approval, law and order), reached by most adolescents, and **postconventional** (social contract, universal principles), reached by a minority. He scored the reasoning, not the conclusion. Carol Gilligan added an **ethic of care** alongside justice, both mature voices. Critics note Western bias, and reasoning predicts behavior only loosely; values also grow through modeling, empathy and real prosocial action.

Teens often rate a risk about as high as adults do yet take it anyway. The **dual-systems model** explains this: a reward-sensitive socioemotional system surges early, raising **sensation-seeking**, while the cognitive control system matures into the mid-twenties. Peers watching activate the reward system and raise risk. **Resilience**, doing well despite adversity, is in Ann Masten's phrase **"ordinary magic"**, built from common **protective factors**. The most consistent is a stable, caring relationship with at least one adult. Using Bronfenbrenner's layers, protection can come from the individual, family, peers and school, or community, and it adds up across levels. The goal is to channel risk, not erase it.

LOCK THESE IN

- Erikson: identity vs. role confusion; the psychosocial moratorium is a sanctioned time to try roles.
- Marcia: exploration crossed with commitment. Diffusion (neither), foreclosure (commit only), moratorium (explore only), achievement (both).
- Achievement usually comes through moratorium, often in the late teens or twenties. Diffusion is the worrying pattern.
- Autonomy: emotional, behavioral, value (latest). Individuation within connection, not detachment.
- Conflict rises over mundane issues and eases. Authoritative parenting plus monitoring predicts the best adjustment.
- Clique: small, real friends, intimacy. Crowd: large, reputation, identity. Conformity peaks about 13 to 15.
- Most adolescents reason at Kohlberg's conventional level. Gilligan: ethic of care.
- Resilience is ordinary magic; one caring adult is the most consistent protective factor.



Marcia's four identity statuses. Crossing exploration with commitment gives four places a young person can stand. The usual road to achievement passes through moratorium.

Key terms and comparisons

Term	What it means	Example
Psychosocial moratorium	Sanctioned time-out to try roles	Clubs, jobs, changing groups
Emotional autonomy	De-idealizing parents	Sees a parent as an ordinary person
Behavioral autonomy	Making and acting on own decisions	Turns down a bad idea
Value autonomy	Defensible beliefs of one's own	Can argue a political view
Individuation	Separating while staying close	Own person, still connected
Monitoring	Knowing where and with whom	Works best through open disclosure
Clique	Small group of real friends	Four friends who eat lunch together
Crowd	Large reputation category	"The theater kids"
Sociometric vs. perceived popularity	Well-liked vs. high-status	Kind classmate vs. dominant leader
Protective factor	Buffers risk	A caring coach, school connectedness

Marcia's statuses

Status	Explored?	Committed?	What it looks like
Identity diffusion	No	No	Apathetic or avoidant about the self
Foreclosure	No	Yes	Adopted a parent's or authority's identity
Moratorium	Yes, ongoing	Not yet	Actively searching and questioning
Identity achievement	Yes	Yes	Personal commitments after exploring

Risk and protective factors

Level	Risk factors	Protective factors
Individual	High sensation-seeking, poor impulse control, hopelessness	Self-regulation, problem solving, optimism, purpose
Family	Conflict, harsh or absent parenting, low monitoring	Warmth, authoritative parenting, a caring adult, monitoring
Peers and school	Deviant peers, disengagement, bullying	Prosocial friends, school connectedness, a mentor
Community	Violence, poverty, easy access to substances	Safe neighborhoods, activities, supportive institutions

Worked cases

WORKED CASE 1 · PLACING A TEEN IN MARCIA'S GRID

Three seniors talk about careers. Ava: "I'm going to be a dentist like my mom; I never thought about anything else." Ben: "I've shadowed a nurse, a teacher and an engineer, and I still don't know." Cara: "I tried a few fields and chose social work because it fits my values." Classify each.

STEP 1 · ASK TWO QUESTIONS FOR EACH

Did she or he explore? Is there a commitment?

STEP 2 · AVA

Committed, no exploration: **foreclosure**.

STEP 3 · BEN

Exploring, not committed: **moratorium**, which is healthy at this age.

STEP 4 · CARA

Explored, then committed: **identity achievement** in this domain.

CHECK IT

Statuses are domain-specific. Ava may be in a different status about religion or politics.

WORKED CASE 2 · SORTING A FAMILY'S AUTONOMY

Sixteen-year-old Nia now sees her father's flaws, decides on her own to skip a party where alcohol will be served, and argues for her own view on a ballot measure. Name each kind of autonomy.

STEP 1 · SEEING FLAWS

De-idealizing a parent is **emotional autonomy**.

STEP 2 · SKIPPING THE PARTY

Making and acting on her own decision, including resisting, is **behavioral autonomy**.

STEP 3 · THE BALLOT VIEW

A thought-through belief she can defend is **value autonomy**, usually the last to develop.

WORKED CASE 3 · BUILDING RESILIENCE

Fourteen-year-old Diego lives in a high-crime neighborhood and his parents are going through a hard divorce. His school has a soccer program with a steady coach. Using the chapter, explain what could protect him.

STEP 1 · LIST THE RISKS BY LEVEL

Community: violence. Family: conflict and possibly lower monitoring.

STEP 2 · FIND PROTECTION AT OTHER LEVELS

Peers and school: the team offers prosocial friends and school connectedness.

STEP 3 · THE STRONGEST FACTOR

The coach can be the stable, caring adult, the most consistent protective factor.

ANSWER

Protection is additive and works across levels. Resilience is ordinary magic built from common supports.

TRAPS PEOPLE FALL INTO

- **Reading moratorium as failure.** Active searching is healthy; diffusion, where no search starts, is the concern.

- **Calling foreclosure maturity.** The commitment was never tested and can crack under challenge.
- **Equating autonomy with detachment.** Healthy individuation happens inside a warm relationship.
- **Reading rising conflict as a broken family.** Arguments are mostly mundane and ease later; warmth and monitoring matter more.
- **Mixing up clique and crowd.** Cliques are small groups of real friends; crowds are large reputation labels.
- **Treating peer pressure as only negative.** Peers push toward studying, teams and causes too.
- **Scoring Kohlberg by the answer.** The reasoning sets the level, not whether the person says steal or don't.
- **Thinking resilience is a rare gift.** It is ordinary magic built from common protective factors.

Chapter 10 self-test · ten items

1. Erikson's adolescent stage is

A. industry vs. inferiority
B. identity vs. role confusion
C. intimacy vs. isolation
D. autonomy vs. shame and doubt

B. identity vs. role confusion The fifth stage asks who am I and where do I fit.

2. A teen committed to a career chosen by her parents, with no exploring, is in

A. moratorium
B. identity diffusion
C. identity achievement
D. foreclosure

D. foreclosure Commitment without exploration is foreclosure.

3. Which Marcia status involves neither exploring nor committing?

A. Foreclosure
B. Identity diffusion
C. Moratorium
D. Identity achievement

B. Identity diffusion Diffusion is the stalled pattern.

4. Which kind of autonomy usually develops last?

A. Value autonomy
B. Emotional autonomy
C. Behavioral autonomy
D. Physical autonomy

A. Value autonomy Thought-through, defensible beliefs come latest.

5. Parent-teen conflict in early adolescence is mostly about

A. deep religious values
B. political beliefs and elections
C. mundane matters like chores
D. long-term career choices

C. mundane matters like chores Arguments rise over everyday logistics and ease later.

6. Which parenting style predicts the best teen adjustment?

A. Authoritarian
B. Permissive
C. Uninvolved
D. Authoritative

D. Authoritative High warmth with reasoned control, plus monitoring.

7. A large, reputation-based peer category is a

A. clique
B. chumship
C. dyad
D. crowd

D. crowd Crowds signal identity; cliques give closeness.

8. Conformity to peers typically peaks around ages

A. 8 to 10
B. 13 to 15
C. 17 to 19
D. 20 to 22

B. 13 to 15 It peaks in early to mid adolescence, then declines.

9. Most adolescents reason at which Kohlberg level?

A. Conventional
B. Preconventional
C. Postconventional
D. Formal

A. Conventional Upholding relationships, approval and the social order.

10. Which is the most consistent protective factor for teens?

A. High sensation-seeking and daring
B. Early entry into puberty
C. A caring relationship with an adult
D. Membership in a high-status crowd

C. A caring relationship with an adult Resilience research points again and again to one stable, caring adult.

ONE PAGE

Cram sheet

Everything from chapters 9 and 10 in one place. Cover the right column and see if you can rebuild each row.

Numbers and timing

Item	Value	Note
Adrenarche	About 6 to 8	First androgens
Puberty onset	Girls about 10 to 11; boys about 11 to 12	About two years apart at peak growth
Tanner stages	1 (prepubertal) to 5 (mature)	Tracks the sequence
Prefrontal maturity	Mid-twenties	Brakes come last
Peer effect	About twice the risk-taking	Driving simulation
Teen sleep need	8 to 10 hours	Circadian phase delay
Firearm injury	Leading US cause of death ages 1 to 19 since 2020	Injury, suicide, violence lead worldwide
Formal operations	About 11 and up	Not universal
Peer conformity peak	About 13 to 15	Then declines
Clique size	Roughly 3 to 10	Real friends

Ideas to connect

Idea	Who	Core point
HPG axis	Physiology	GnRH, LH and FSH, sex hormones
Dual-systems model	Neuroscience	Early reward, late control
Hypothetico-deductive reasoning	Piaget	Test one variable at a time
Imaginary audience, personal fable	Elkind	Adolescent egocentrism
Identity vs. role confusion	Erikson	Moratorium for trying roles
Identity statuses	Marcia	Exploration crossed with commitment
Parenting styles	Baumrind	Authoritative plus monitoring
Chumship	Sullivan	Friendship as rehearsal for intimacy
Clique to couple	Dunphy	Same-sex cliques merge into mixed groups
Ethic of care	Gilligan	Care alongside justice
Ordinary magic	Masten	Resilience from common protective factors

Dr. Garg Learning · CC BY-SA 4.0