Identical Twins: start as single fertilized egg...split  
Have exactly the same genes

Fraternal Twins: two eggs shared the same womb  
Average about 50% of genetic material in common

Key Question:
Core Concept:

Developmental psychology:
Continuity View:
Discontinuity View:
Developmental Stages:

PSYCHOLOGICAL TRAITS IN YOUR GENES

Hereditary always works in combination with environment  
Ex: Outgoing people aren’t just born that way, they have been encouraged to be extroverts
Strong genetic links to....  
Intelligence...sexual orientation...risky behavior...basic temperament...personality

Key Question:
Core Concept: Newborns have innate abilities for...  
--finding nourishment 
--interacting with others 
--avoiding harmful situations
BUT...the developing abilities of infants and children rely more on learning

A. PRENATAL DEVELOPMENT

Prenatal period: developmental period before birth
Zygote: fertilized egg
Embryo: developing human ...first eight weeks
Fetus: Developing human between the embryonic and birth
Placenta: organ interface between embryo/fetus and mother
Teratogens: Substances from the environment.. including drugs,  
viruses, chemicals ..that can damage the organism during the  
prenatal period

Prenatal Development of the Brain
The prenatal brain grows new neurons at a rate of up to 250,000 per minute
By birth, it has produced nearly 10 billion
B. THE NEONATAL PERIOD: ABILITIES OF A NEWBORN CHILD

Neonatal Period: newborn period...first month after birth (one month)
Abilities include ...
   Postural reflex:
   Grasping reflex:
   Sucking reflex:

C. INFANCY AND CHILDHOOD: BUILDING ON THE NEONATAL BLUEPRINT

Infancy:

Attachment:

Imprinting:

MARY AINSWORTH AND ATTACHMENT

The Strange Situation

Secure Attachment

Anxious-Ambivalent Attachment

Avoidant Attachment

Henry Harlow - Attachment Experiment
Used surrogate wire monkeys...one fur lined, another with food/nourishment...monkey sought contact comfort especially when frightened or nourishment...also as a safety zone

Contact Comfort:

Without contact, psychosocial dwarfism or failure to thrive may occur

Cupboard Theory of Attachment:

Maturation:
Most infants follow a predetermined sequence of development... although physical development may occur in spurts

*Throughout infancy and childhood, physical growth involves times of active and inactive growth phases*

**Neonates Come Equipped to Accomplish Three Basic Survival Tasks**

1. Find food (feeding)
2. Maintain contact with people (protection and care)
3. Defend against harmful stimuli (withdrawing from pain or a threat)

**Key Question:**

**Core Concept:**

**Cognitive Development:** Ways in which mental abilities emerge...Piaget’s theory

**THREE KEYS TO PIAGET’S THEORY**

1. **Schemas:** Mental structures or programs that guide a developing child’s thought

2. Interaction of **Assimilation:** Mental process that modifies new information to fit existing schemas..... And.... **Accommodation:** Mental process that restructures existing schemas so that new information is better understood

3. **Stages of Cognitive Development**

**JEAN PIAGET’S STAGES OF COGNITIVE DEVELOPMENT**

There are **four primary cognitive structures** (i.e., development stages) according to Piaget:

1. **Sensorimotor**
   - In the sensorimotor stage (0-2 years), intelligence takes the form of motor actions.
   - Experiencing the world through senses and actions (looking, touching, mouthing).

   **Developmental Milestones:**
   - **Mental Representation:** Ability to form internal images of objects and events
   - **Object Permanence:** Knowledge that an object exists independently of one’s own actions or awareness

   **Stranger anxiety:** fear of strangers

2. **Preoperational**
   - Intelligence in the preoperation period (2 -7 years) is intuitive in nature
   - Representing things with words and images but lacking logical reasoning.

   **Developmental Milestones:**
   - **Egocentrism:** self-centered...inability to realize there are other viewpoint beside theirs...
     (world revolves around the child and was invented for them)
   - **Animistic thinking:** inanimate objects are imagined to have life and mental process
   - **Centration:** inability to consider more than one factor at a time
Irreversibility: inability to think through a series of events or mental operations and then reverse the steps
Also...the ability to pretend

3. Concrete Operational
The cognitive structure during the concrete operational stage (8-11 years) is logical but depends upon actual events.
Thinking logically about concrete events; grasping concrete analogies and performing arithmetical operations.

Developmental Milestones:
Conservation: physical properties of an object, setting or substance don’t change when the appearance changes

Mental Operations: solving problems by manipulating images in one’s mind

4. Formal Operational
In the final stage of formal operations (12-15 years), thinking involves abstractions and abstract reasoning.

Developmental Milestones:
Abstract thought and reasoning....
Scientific reasoning. Potential for mature moral reasoning.

Theory of Mind:

Temperament:

Zone of Proximal Development:

Vygotsky: Socialization is a lifelong process that is shaped by influences in a child’s life
Ex: parenting

TYPES OF PARENTING STYLES

__________________________ Parents
– Parent is warm, attentive, sensitive to child’s needs/interests
– Very effective

__________________________ Parents
– Often degrading, mean, controlling, rejecting

__________________________ Parents
– Often indulgent, warm
– Not the most effective for healthy development

__________________________ Parents
– Emotionally detached, withdrawn, inattentive
ERIKSON'S 8 STAGES OF PSYCHOSOCIAL DEVELOPMENT

Stage 1: Oral-Sensory  
**Age:** Infancy – Birth to 1 year  
**Conflict:** Trust vs. Mistrust  
**Important Event:** Feeding

Infant will develop a sense of trust only if the parent is responsive and consistent with the basic needs being met. Babies who are not securely attached to their mothers are less cooperative/more aggressive in their interactions with their mothers. As they grow older, they become less competent and sympathetic with peers.

Stage 2: Muscular-Anal  
**Age:** Toddler period – 1 - 2 years  
**Conflict:** Autonomy vs. Doubt  
**Important Event:** Toilet Training

Self-control and self-confidence begin to develop at this stage. Children can do more on their own. Toilet training is the most important event at this stage. They also begin to feed and dress themselves. The child must take more responsibility for his or her own feeding, toileting, and dressing. Parents must be reassuring yet avoid overprotection. Children who experience too much doubt at this stage will lack confidence in their own powers throughout life.

Stage 3: Locomotor  
**Age:** Early Childhood 2 - 6 years  
**Conflict:** Initiative vs. Guilt  
**Important Event:** Independence

The child continues to be assertive and to take the initiative. Playing and hero worshipping are an important form of initiative for children. Children in this stage are eager for responsibility. If the child is not given a chance to be responsible and do things on their own, a sense of guilt may develop. If children are not allowed to do things on their own, a sense of guilt may develop and they may come to believe that what they want to do is always wrong.

Stage 4: Latency  
**Age:** Elementary/Middle School Years – 6 - 12 years  
**Conflict:** Industry vs. Inferiority  
**Important Event:** School

It is essential for the child at this stage to discover pleasure in being productive and the need to succeed. The child's relationship with peers in school and the neighborhood become increasingly important. Difficulty with the child's ability to move between the world at home and the world of peers can lead to feeling of inferiority.

Stage 5: Adolescence  
**Age:** Adolescence – 12 - 18 years  
**Conflict:** Identity vs. Role Confusion  
**Important Event:** Peer relationships

Adolescents are in search of an identity that will lead them to adulthood. Adolescents make a strong effort to answer the question *Who am I?* IDENTITY CRISIS See themselves as separate from their parents. If the adolescent cannot make deliberate decisions and choices, especially about vocation, sexual orientation, and life in general, role confusion becomes a threat.
Stage 6: Young Adulthood
Age: Early Adulthood – 19 - 40 years  Conflict: Intimacy vs. Isolation
Important Event: Relationships
The young adult must develop intimate relationships with others. Not resolving this conflict leaves the young adult feeling isolated. Must be willing to be open and committed to another individual. It is important to mention that having a sexual relationship does not indicate intimacy. True intimacy requires personal commitment. An individual may retreat into isolation if a sense of identity is not developed and will fear a committed relationship.

Stage 7: Middle Adulthood
Age: Middle adulthood – 40 - 65 years  Conflict: Generativity vs. Stagnation
Important Event: Parenting
Generativity has a broader meaning then just having children. Each adult must have some way to satisfy and support the next generation….to have and nurture children and/or become involved with future generations. An individual must deal with issues they are concerned with or it can lead to stagnation in later life. Examples:
In this stage an adult will be concerned with issues such as: the future of the environment, what kind of world will we leave the next generation, equality for all people, etc.

Stage 8: Maturity
Age: Late Adulthood – 65 years to death  Conflict: Integrity vs. Despair
Important Event: Reflection on and acceptance of one's life
According to Erikson, achieving a sense of integrity means fully accepting oneself and coming to terms with the death. Accepting responsibility for your life and being able to undo the past and achieve satisfaction with self is essential. The inability to do this results in a feeling of despair.

Key Question:
Core Concept: Adolescence offers new developmental challenges growing out of ...

1. _______________________________________________
2. _______________________________________________
3. _______________________________________________
Adolescence:

Rites of Passage:

*Rites of Passage* vary widely among cultures...our culture has few rituals that help children make this transition

Beginning high school
Turing 16
Getting a driver's license

Turning 18
Graduating high school
Turning 21

**Puberty:** Onset of sexual maturity...including *primary sex characteristics* (sex organs, genitals) and *secondary sex characteristics*

- males: pubic hair, facial hair, deepening of the voice
- females: pubic hair, widening of the hips, enlarged breasts

**Aspects of Adolescence**

*Body Image:* Males and females...increases in importance

*Sexual Orientation*

Piaget's *Formal Operational Stage*

Erickson: *Identity Crisis*
KOHLBERG’S MORAL LADDER

Lawrence Kohlberg is a moral philosopher and student of child development. His special area of interest is the moral development of children - how they develop a sense of right, wrong, and justice. Kohlberg observed that growing children advance through definite stages of moral development in a manner similar to their progression through Piaget's well-known stages of cognitive development.

Preconventional level (develops during early childhood)
   Behavior motivated by anticipation of pleasure or pain.

Conventional level (develops during late childhood and early adolescence)
   Acceptance of the rules and standards of one's group.

Postconventional level (may develop from adolescence on)
   Moral behavior based on ethical principles.

A. PREMORAL OR PRECONVENTIONAL STAGES:
   Behavior motivated by anticipation of pleasure or pain.

   STAGE 1: PUNISHMENT AND OBEDIENCE:
   Avoidance of physical punishment and deference to power.

   STAGE 2: INSTRUMENTAL EXCHANGE:
   Marketplace exchange of favors or blows. "You scratch my back, I'll scratch yours."

B. CONVENTIONAL MORALITY: Acceptance of the rules and standards of one's group.

   STAGE 3: INTERPERSONAL CONFORMITY:
   Right is conformity to the behavioral expectations of one's society or peers.
   Individual acts to gain approval of others.
   Good behavior is that which pleases or helps others within the group..." 
   One earns approval by being conventionally "respectable" and "nice."

   STAGE 4: LAW AND ORDER:
   Respect for rules, laws and properly constituted authority.

   STAGE 4 ½:
   Between the conventional stages and the post-conventional Levels 5 and 6, there is a transitional stage.
   College-age students that have come to see conventional morality as relative and arbitrary, but have not yet discovered universal ethical principles, may drop into a hedonistic ethic of "do your own thing." This was well noted in the hippie culture of the 1960's.

C. POSTCONVENTIONAL OR PRINCIPLED MORALITY: Ethical principles

   STAGE 5: PRIOR RIGHTS AND SOCIAL CONTRACT:
   Moral action in a specific situation is not defined by reference to a checklist of rules, but from logical application of moral principles.
   Individuals have natural or inalienable rights and liberties that must be protected by society.

   STAGE 6: UNIVERSAL ETHICAL PRINCIPLES:
   An individual who reaches this stage acts out of universal principles based upon the equality and worth of all human beings.
Key Question:

Core Concept:

Erickson:

**Young Adulthood:**

- Poses challenge of establishing close relationships...intimacy vs. isolation
- Anything that isolates us from social supports puts us at risk for illness

**Midlife:**

**Maturity**

Ego integrity vs. Despair: older adults must evaluate life choices....look back without regrets

Older adults who pursue high levels of environmental stimulation (stay active) tend to maintain higher levels of cognitive abilities

While some parts of the brain do lose mass, most older adults do NOT have a decrease in cognitive abilities

**Alzheimer's Disease:**

**Selective Social Interaction:**

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**KUBLER-ROSS STAGES OF DYING**

Elizabeth Kubler-Ross discovered that there are five distinct psychological stages a person progresses through in the acceptance of his/her own death.

__________ Person feels the doctor made a mistake, doctors must have made a mistake

__________ Person becomes resentful of and angry at those around him.

__________ Person tries to bargain (with doctors and God) for more time.

__________ Person comes to grips that death is inevitable but feels cheated.

__________ Person accepts death as part of life and quietly makes necessary plans.