

Chapter 9

Intellectual Development of Infants

Section 1: Early Brain Development

- Define all terms

What do the following have to do with the human brain?

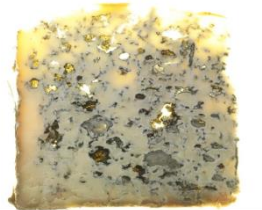
□ Walnut Half:



□ Pinkish-Grey Jello-Jigglers



□ Blue Cheese:



□ Grain of Rice:



□ Pruning:

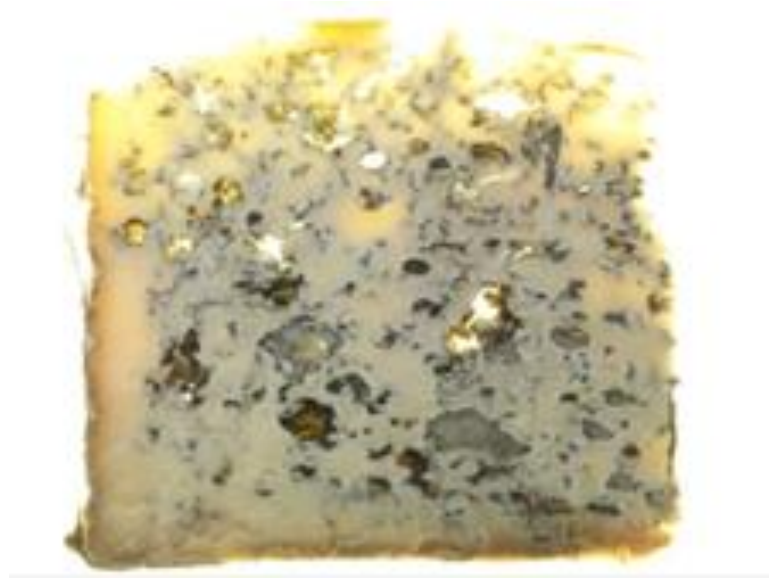


ANSWERS



Walnut Half: represents the wrinkled and convoluted surface of the brain.

ANSWERS



Blue Cheese: the brain smells like this.

ANSWERS



Grain of Rice: you can fit 10,000 neurons in it.

ANSWERS



Pinkish-Grey Jello-Jigglers: the brain is a pinkish-grey color and the consistency of jello-jigglers.

ANSWER



Pruning: neurons that don't get used and make no connections, get "pruned". This happens more rapidly in adolescence. The brain loses elasticity.

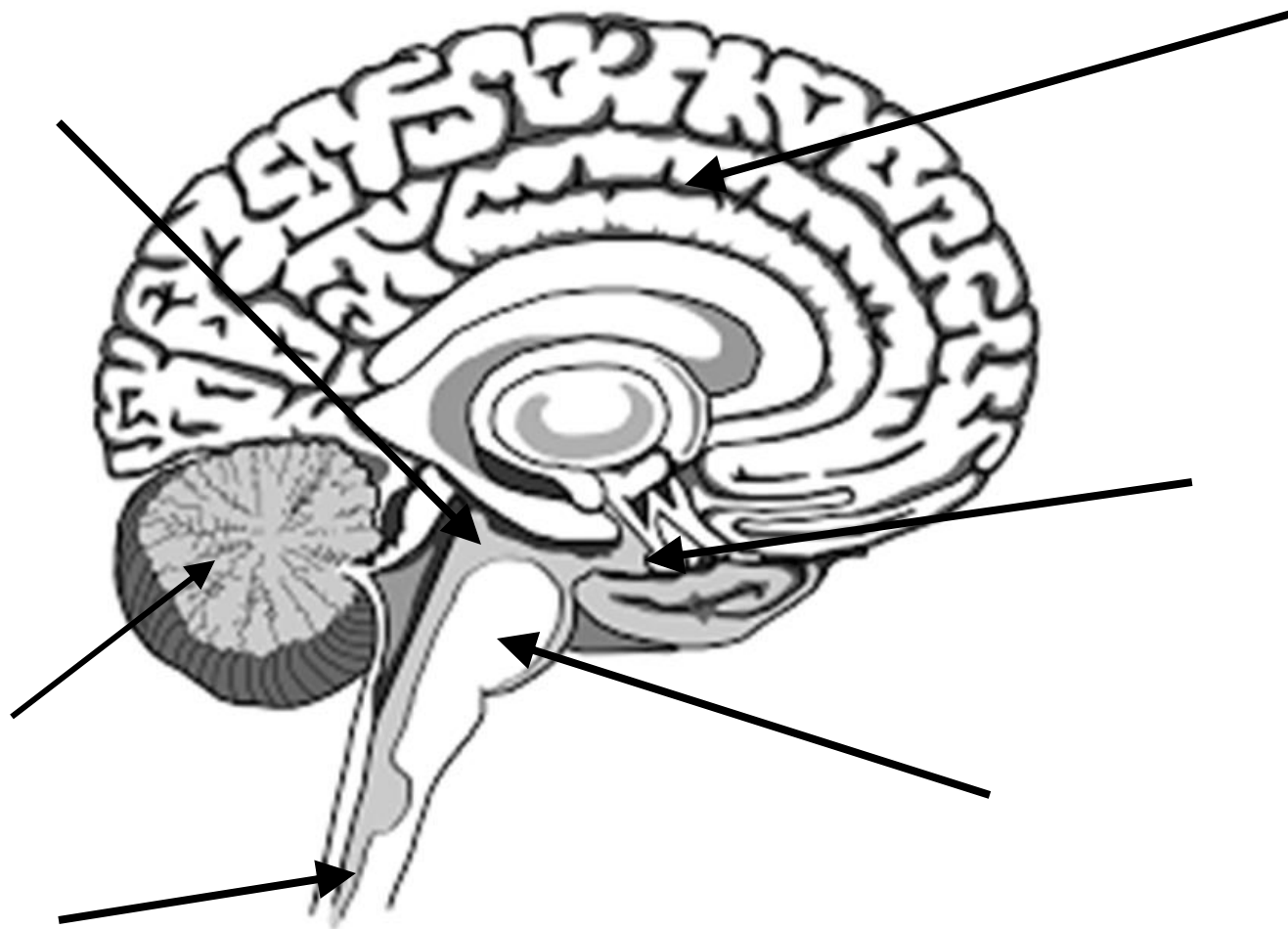


BRAIN TRIVIA

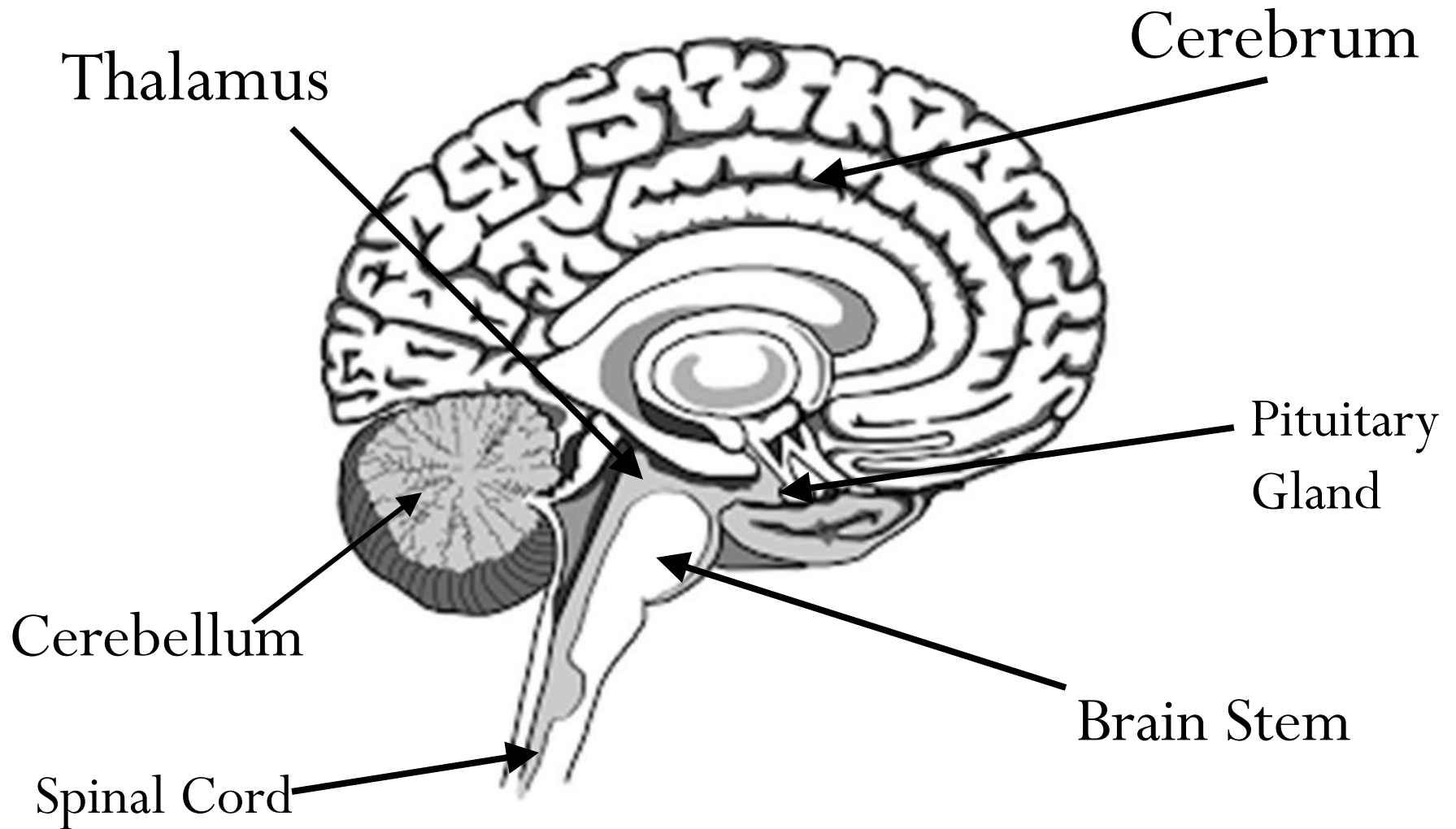


- • Hardest working, vital organ in the body
- • Represents less than 2% of body weight
- • Uses 25% of oxygen you breathe
- • Weighs approximately 3 pounds
- • Takes up half the volume in your head
- • Commander in chief of everything 24/7

Parts of the brain



Parts of the brain



What are senses?

- One of 5 powers by which people and animals gain knowledge of things outside of themselves
- vision, hearing, touch, smell, taste

Baby's Brain

- Early experiences impact the development of the brain and influence the specific way in which the circuits of the brain become “wired”
- A work in progress
- The synapse connections in the brain are activated by the sense and an infant will learn by tasting, smelling, listening, touching and seeing
- Examples?

Mapping the 5 senses



Brain Cell Connections Activity

- Cut out the squares
- Group the like activities
 - One group will be at home
- Glue onto paper
- ID which of the 5 senses are activated by the activity

Building Babies Brain

- Article

Section 9.2

- Define Vocabulary

Signs of Intellectual Growth

- Remembering Experiences
- Making Associations
- Understanding Cause and Effect
- Paying Attention

Developmental Milestones

Intellectual

- Pg 267
- Birth to 12 months

Sensorimotor

- Pg 271
- Birth to 12 months

Children learn words and concepts
by using what 3 principles?

Who had a great influence on what is known about how children learn?

- What were the 4 levels of intellectual understanding he defined?
- Do they appear in the same order in all children?

Review

- Give an example of a situation in which a baby has made an association.
- What skills do babies typically learn when they are 3 to 4 months old?
- Why is it difficult for young children to learn to use pronouns?

Section 9.3

- Define Vocabulary

- What are some ways that parents and caregivers can encourage learning?
- What area of development does developing communication depend on?
- How do babies first communicate?
- Is sign language appropriate? If so how early can you teach a child sign language?
 - Why would someone want to teach a child sign language?
- How does a child learn to speak?

The Importance of Play

- What are some things that babies gain from play time?
- Identify key characteristics of toys appropriate for a baby that is...
 - 0-3 months old
 - 4-6 months old
 - 7-9 months old
 - 10-12 months old