



# **The Role of Play in an Overly- Academic Kindergarten**

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*New Haven, CT*

NAEYC  
*Washington, DC 2010*



# Hello from Gesell Institute of Human Development



Dr. Arnold Gesell



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Development  
310 Prospect St.  
New Haven, Connecticut  
[www.gesellinstitute.org](http://www.gesellinstitute.org)**





# Brief History of Arnold Gesell and the Gesell Institute of Human Development

- Arnold Gesell, PhD, MD, 1880 - 1961
- 1911 came to Yale, founded Yale Child Study Center
- Used technology—cinematography—to systematically document and study child development as no other had done before him
- Father of Child Development or Father of School Psychology





- 1950 retired from Yale and established the non-profit Gesell Institute for Child Development
- Died in 1961 and Drs. Louise Bates Ames, Janet Rodell, and Frances Ilg continued and expanded Gesell's work
- During 1970's and 1980's the Institute prospered as a clinic with many doctors and treated children, as well as conducted research, and operated a child care center




Dr. Ilg



# Gesell Developmental Observation

- Published —1940, 1964, 1979, 2010



  
GESELL INSTITUTE

**The Gesell Developmental Observation**  
For evaluating motor, adaptive, language  
and personal-social behavior in children  
ages 2½ to 9

Child's Name \_\_\_\_\_

Birth Date \_\_\_\_\_ Age (CA) \_\_\_\_\_ Yrs. \_\_\_\_\_ Mos. \_\_\_\_\_

School \_\_\_\_\_ Grade/Class \_\_\_\_\_

Examiner \_\_\_\_\_ Date \_\_\_\_\_

Parent/Guardian \_\_\_\_\_ Parent/Guardian \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

\_\_\_\_\_

Home Phone \_\_\_\_\_ Home Phone \_\_\_\_\_

Work Phone \_\_\_\_\_ Work Phone \_\_\_\_\_

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# Hello from IPA/USA

**CHILDREN** are the foundation of the world's future.

**CHILDREN** have played at all times throughout history and in all cultures.



The USA Affiliate of the International Play Association:  
Promoting the Child's Right to Play

[WWW.ipausa.org](http://WWW.ipausa.org)



# Right to Play

## UN Convention on the Rights of the Child

- International treaty that sets out universally accepted rights for children, 1989
- Supersedes Declaration of the Rights of the Child adopted in 1959.

## Article 31 of the UN Convention

- That every child has the right to rest and leisure, **to engage in play** and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.
- That member governments shall respect and promote the right of the child to participate .....





# **United States is the only country that has not ratified the 1989 Convention on the Rights of the Child!**

[www.childrightscampaign.org](http://www.childrightscampaign.org)







# WHAT IS PLAY?

# WHAT IS PLAY?



***PLAY**, along with the basic needs of nutrition, health, shelter and education, is vital to develop the potential of all children.*

***PLAY** is communication and expression, combining thought and action; it gives satisfaction and a feeling of achievement.*

***PLAY** is instinctive, voluntary, and spontaneous.*

***PLAY** helps children develop physically, mentally, emotionally and socially.*

***PLAY** is a means of learning to live, not a mere passing of time.*

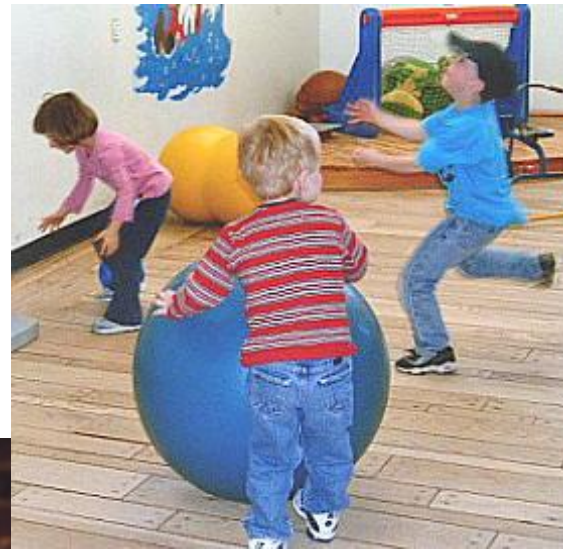
***PLAY** is the child's way of learning.*

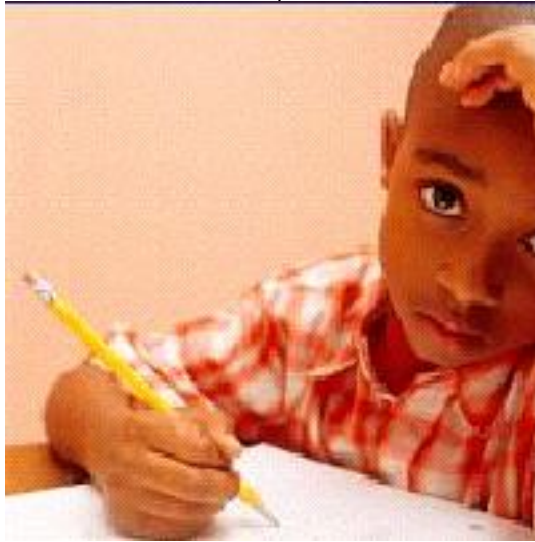
***PLAY** is the work of the child. (Piaget)*



# ***Have we forgotten how to play?***

***“Play is under siege” (Zigler, 2004)***





**But whatever  
happened to play?**

In 1981, a typical school-age child in the United States had 40% of her time open for play. By 1997, the time for play had shrunk to 25%.

What percentage is it down to now??





# Recent research suggests that

- In the last two decades children have lost 8 hours of free play per week
- 30,000 schools in the United States have eliminated recess to make time for more academic study.

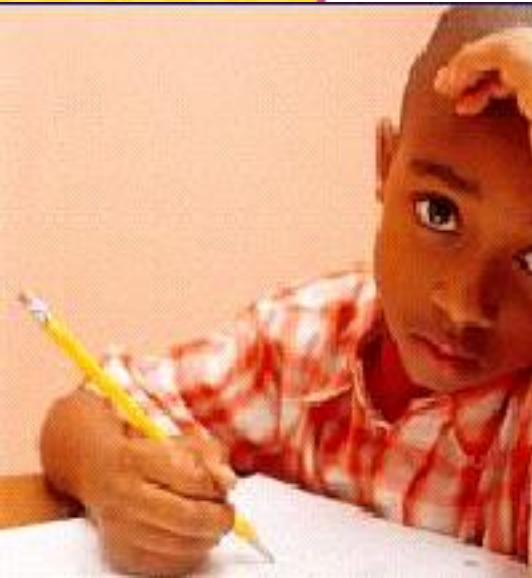
Elkind, (2008) *Greater Good*



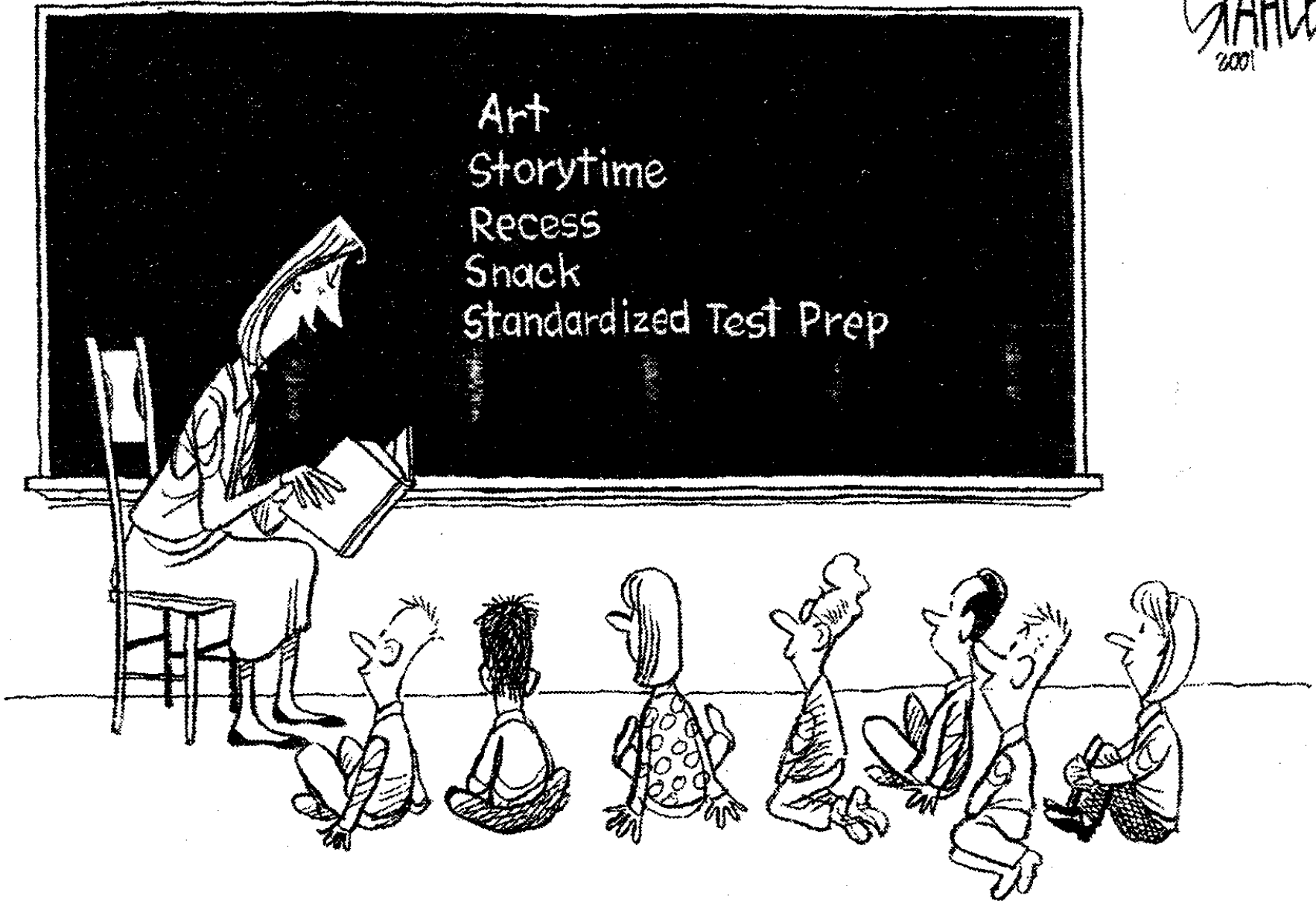


# Recent School Trends

- No Child Left Behind—
- More testing
- Drill and “kill” phenomenon
- Merit pay based on test scores
- Push-down Curriculum



STAHLER  
2001





# Kindergarten is now our new first grade!

- Crisis in the Kindergarten!
- Children must be readers by the end of the K year
- Sit in desks and “learn”
- Teaching to the test—isolated “factoids”
- Ignoring everything we know about how young children learn
- No time for play!







# How Young Children Learn

- Early Childhood defined as birth to age 8 years
- During this period young children learn in different ways than older children
- Learn through physically interacting with environment—both people and things
- Use their all their senses
- Build new knowledge based on old knowledge—“stair-steps analogy”





# Developmentally Appropriate Practice

- Simply means that activities and instruction are designed to match the stage of development for each child because.....
- Each child develops at his/her own rate
- Sooner or faster not better and later is not worse or wrong!





# Research on Developmentally Appropriate Practice

*Comparisons between  
developmentally appropriate (DAP)  
and more traditional “academic”  
direct instruction (DI) schools  
show many benefits for children in  
DAP schools.*

Hirsh-Pasek, Golinkoff, Berk, & Singer. *A mandate for playful learning in preschool: Presenting the evidence.* Oxford University Press, 2008.





## ■ DAP schools

- Have active learners
- More playful learning (guided play)
- Whole child approach
- Integrated curricula
- Discoverer/Explorer metaphor

## ■ DI (Direct Instruction)

- More passive learners
- Learning is more compartmentalized
- Empty vessel metaphor





# DAP schools offer advantages in

## ■ Social emotional development

- > Emotional regulation

- < Child stress

Burts, Hart, Charlesworth, Fleege, Mosley & Thomasson, 1992

- < Behavior problems

Marcon, 1994, 1999, 2003

- > Motivation for school

Hirsh-Pasek, 1991; Stipek et al., 1998

## ■ Academically

- > reading and math scores

Stipek, Feiler, Byler, Ryan, Milburn, and Salmon (1998); Marcon (1999, 2003)





# Montessori study found...

- Greater benefits for children in Montessori education over the more traditional education
- Classrooms are more developmentally appropriate
- Embrace a metaphor of learning that is much more playful in approach
- Children are active and less passively involved in learning

--Lillard & Else-Quest, 2006





# The results suggested that...

- **Children in Montessori classrooms at age 5 yrs. did...**
  - Better in social tasks that required positive peer play
  - Better in tasks that required attention to another person's beliefs
  - Better in academic tasks like reading and math
- **At age 12 years these children...**
  - Liked school more
  - Were more creative in their writing
  - Did better in reading and math



## **And yet another recent study (Diamond, Barnett, Thomas & Munro, *Science*, 2007)**

- Using *Tools of the Mind* curriculum helped children develop executive function skills (EF); e.g., inhibitory control, working memory and cognitive flexibility
- EF skills highly correlated with positive outcomes in math and reading
- With playful learning *throughout the day*, standardized tests scores increase -- even for poor children.





# WHY???

**Because children were more actively engaged and learned more through play!**



# Defining Play?



## Free-unstructured play:

imaginative, creative, lacks clearly delineated rules or goals



## Structured play: goal-oriented

- Life skills activities: foster academic and adult related skills
- Electronic play activities: television or use of e-devices





# Parent & Expert Survey

- Study done by Fischer Price
- 1160 parents with at least one child less than 5 yrs of age
- 99 early childcare professionals ( $m = 16$  yrs exp)
- Internet Survey (2 scales):
  - **Classification of play activities** - 26 activities rated on 7-pt scale (1 = not play, 7 = definitely play)
  - **Academic learning value** - activities rated on 7-pt scale (1 = does not relate to academic learning, 7 = sets foundation for academic learning)

Fisher, Hirsh-Pasek & Golinkoff (2008)



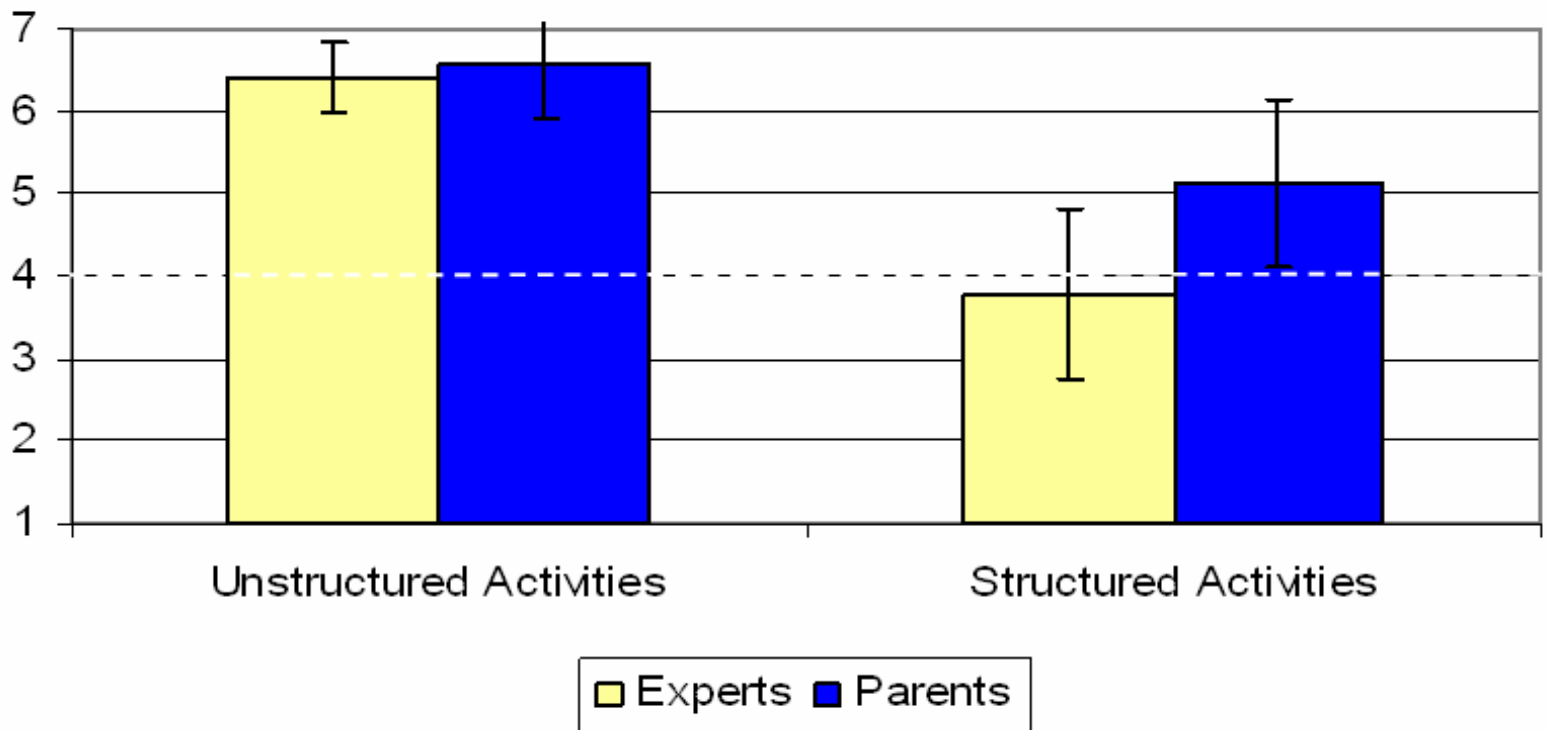
# Research Shows that Parents and Experts View Differ



Expert vs. Parent Classifications of Play

Play

Not  
Play





# Therefore Parents.....

Parents think that flashcards, educational television and reading console books are as *playful* as making art, romping in the fall leaves, and building forts.

Parents are fine with “playing” in school --- if it includes a lot of educational play and school prep like academic skills.

Parents have a different world view than the experts, although, they too, want their children to succeed!

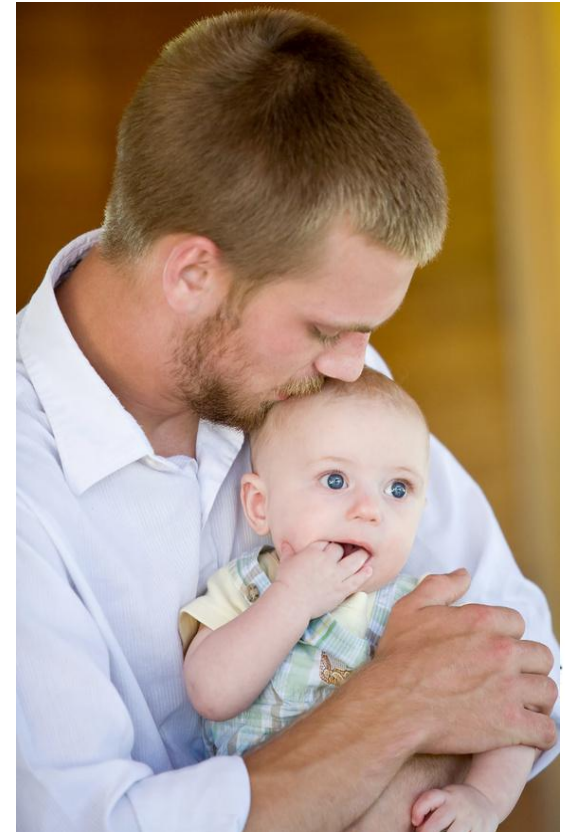


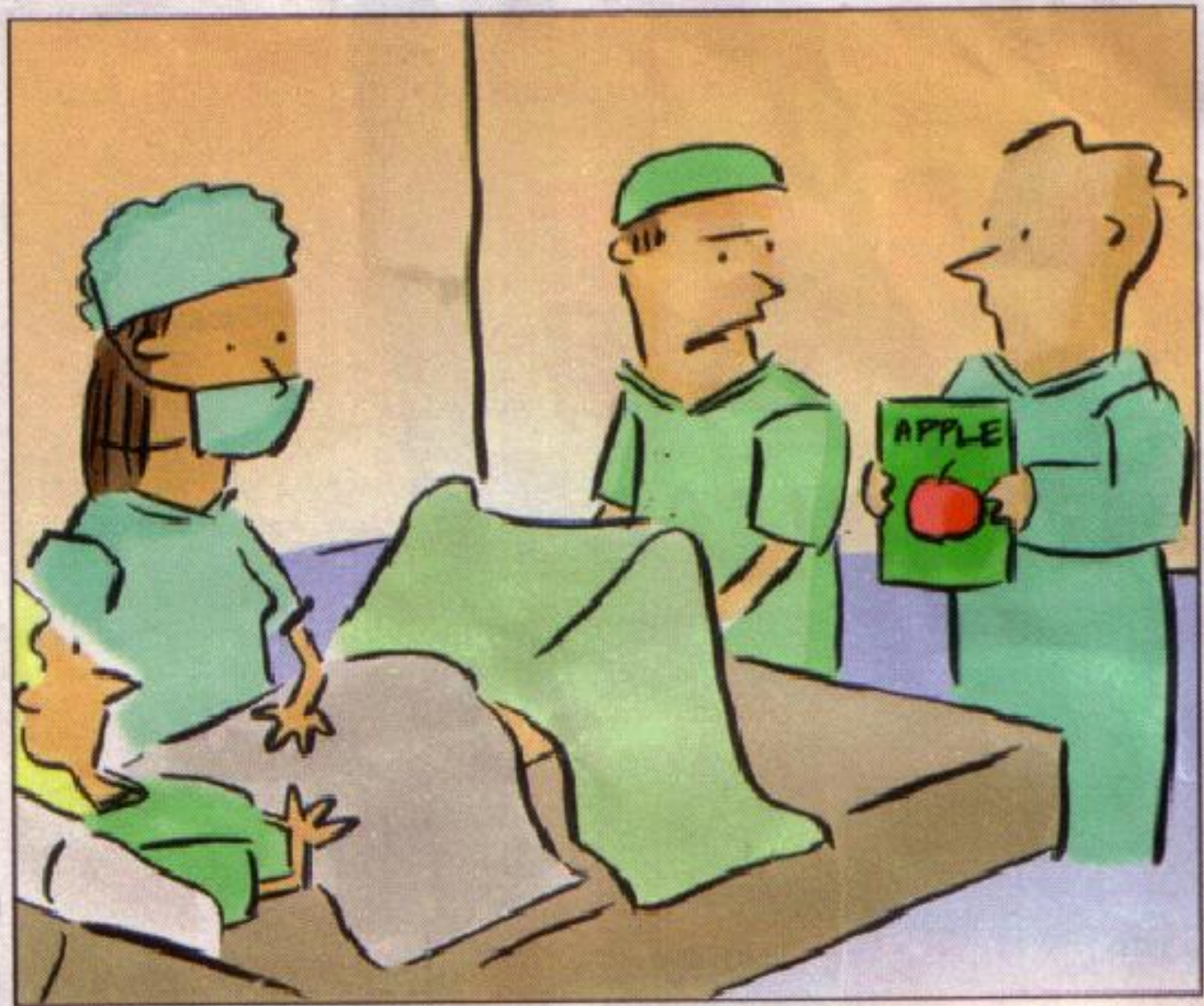


# Well-intentioned parents and teachers

Have been misled by . . .

- Exaggerated science
- Societal forces
- Marketing ploys





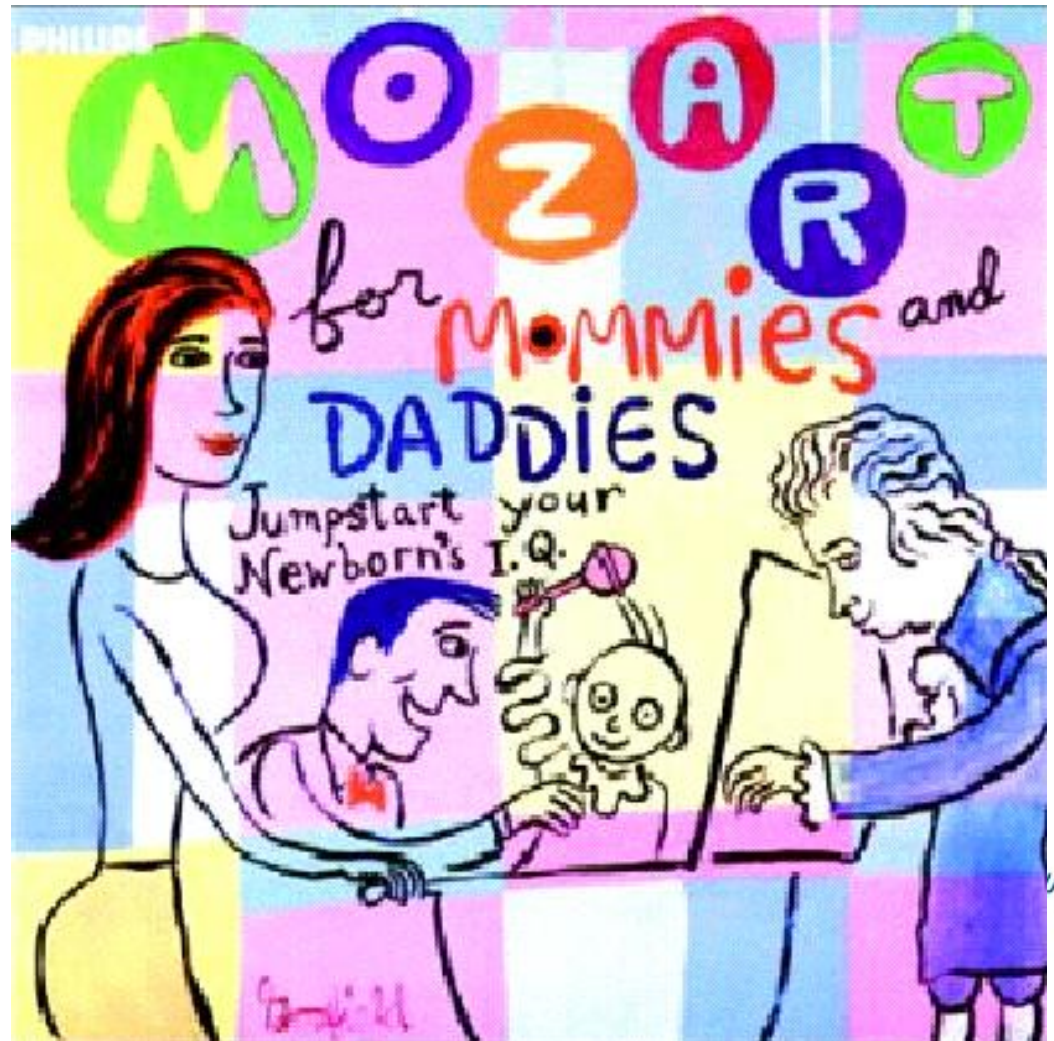
"Could you at least lay off the flash cards until we see a head?!"



# Exaggerated Science

“Mozart Effect”?

Research actually found that it had negative consequences for children





# Societal Forces

Even comic strips reflect our insatiable appetite for products that will boost IQ and save our children from the fate of being \*gasp\* “normal.”

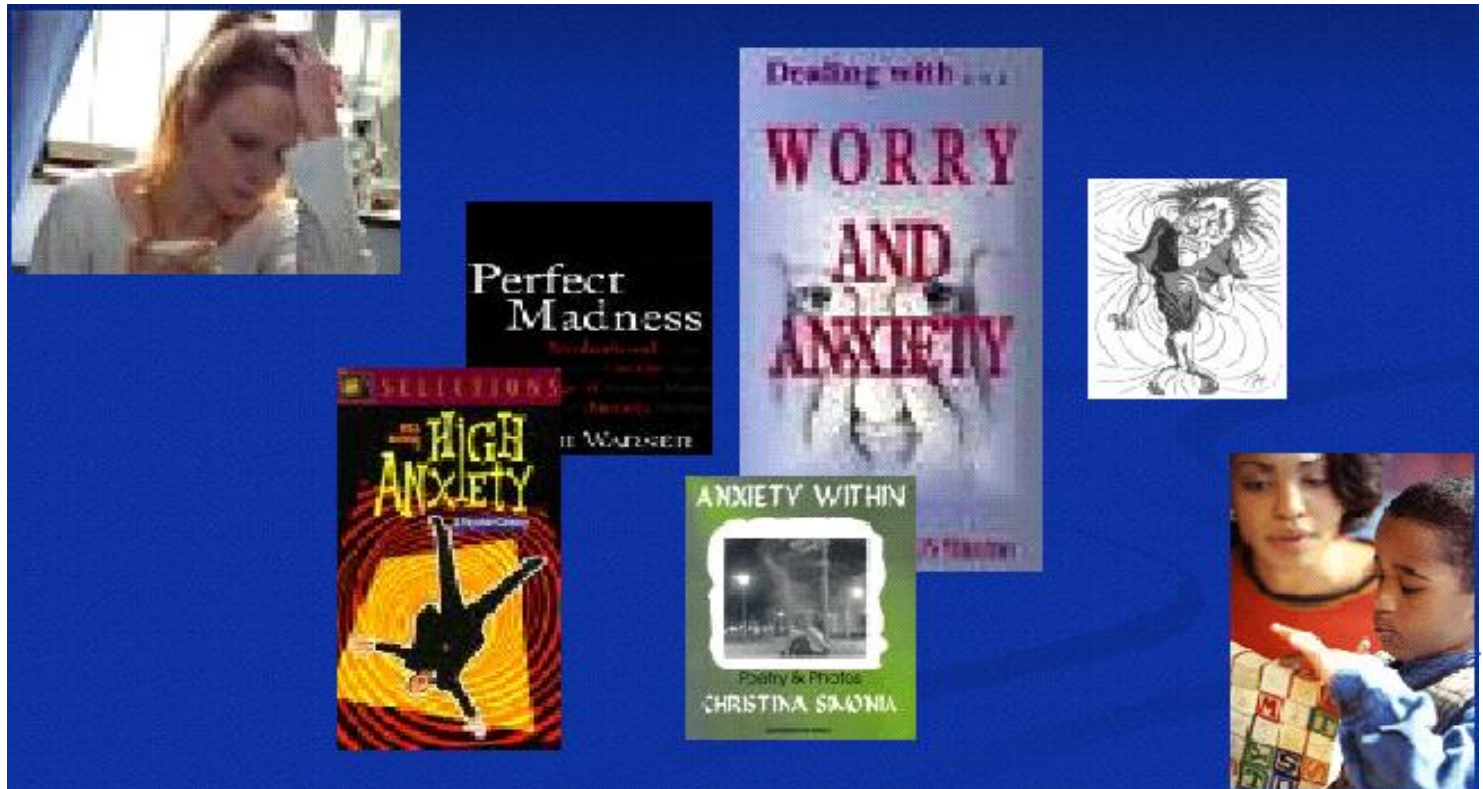
*From Baby Blues*



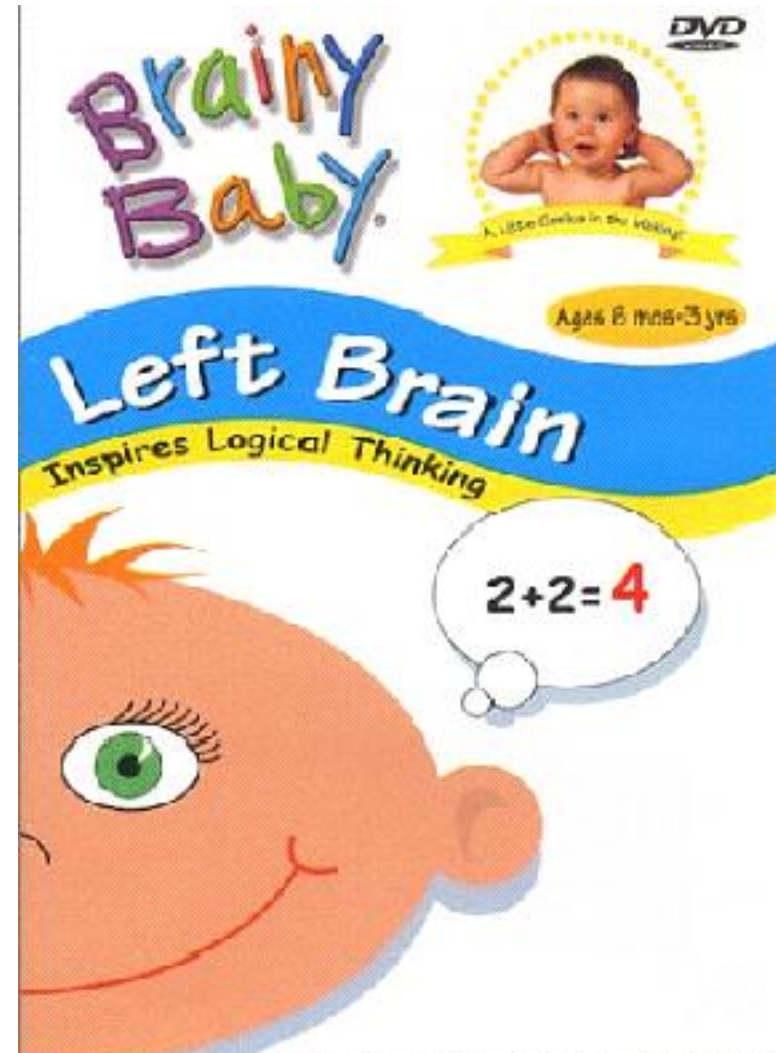
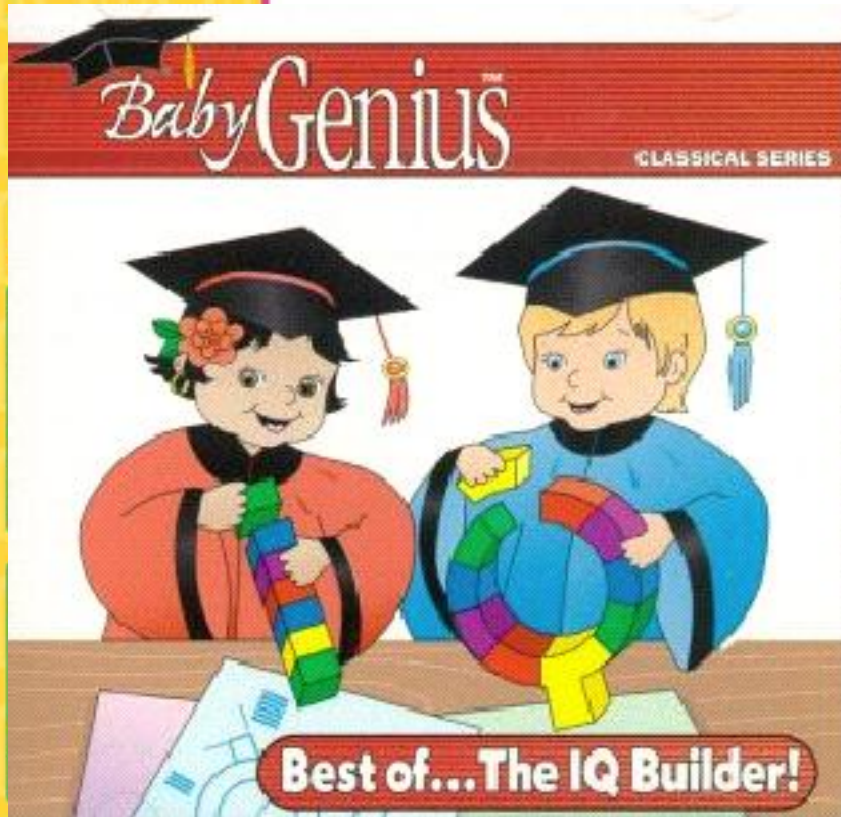
Reprinted with permission of King Features  
Syndicate



# Books that speak to parents' newly created anxieties about whether their children will succeed!



# Marketing Ploys



# PLAY CARTOON

WHAT IS THIS TEACHER DOING? THE CHILDREN ARE JUST PLAYING!!

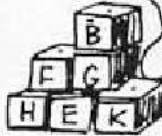


I'M DEVELOPING MOBILITY OF THOUGHT...

I'M PRACTICING COOPERATION.

I'M FOLLOWING A MENTAL PLAN.

I'M PROBLEM-SOLVING.



I'M DEVELOPING A GOOD SELF-CONCEPT.

I'M DEVELOPING NUMBER CONCEPTS.



I'M DEVELOPING MORE ELABORATE LANGUAGE.

I'M DEVELOPING A SENSE OF STORY AND ENHANCING MY STORY COMPREHENSION.



I'M DEVELOPING HAND-EYE COORDINATION.

I'M ORGANIZING AND CONCEPTUALIZING MY SKILLS.



I VALUE PLAY AS AN IMPORTANT MEDIUM FOR LEARNING. I HAVE DEVELOPED A BROAD RANGE OF DEVELOPMENTAL GOALS WITH THE FOCUS ON PLAY. THIS PROGRAM PROVIDES CHILDREN WITH PLAY EXPERIENCES THAT ENABLE THEM TO DEVELOP AND ACCUMULATE THEIR OWN KNOWLEDGE!



I'M LEARNING HOW TO TAKE TURNS.

I'M DEVELOPING GROSS MOTOR SKILLS.



I'M LEARNING TO 'DECENTER' MY VIEWPOINT.



I'M MAKING GENERALIZATIONS ABOUT THE PROPERTIES OF VARIOUS OBJECTS.



I'M DEVELOPING CLASSIFICATION SKILLS.



I'M TESTING MY BALANCE SYSTEM.



# American Academy of Pediatricians

**“The Importance of Play in Promoting Healthy  
child Development and Maintaining Strong Parent-  
Child Bonds” -- October 2006**

They wrote:

These guidelines are written in response to the multiple forces challenging play. The overriding premise is that play (or some available free time in the case of older children and adolescents) is **essential** to the cognitive, physical, social, and emotional well-being of children and youth.





# FACT

**Success in the global workforce of the 21st century requires that our children be skilled in the 6 C's**

- *Collaboration* (teamwork)
- *Communication* (speaking & writing)
- *Content* (reading & math, science and history)
- *Creative Innovation* and problem solving
- *Critical Thinking*
- *Confidence* (to take risks and learn from mistakes)

Fisher, Hirsh-Pasek & Golinkoff (2008)





# Recent studies from state preschools suggest that...

## ■ Preschool experience dramatically increases children's:

### ■ Collaboration

- > Social skills by as much as 62%
- < Problem behaviors

### ■ Communication

- > Language skills by 25%

### ■ Content

- > Reading by 59%
- > Writing
- > Math by 50%

High scope data Schweinhart, 2004; NIERR State reports, 2008





# FACT

- We are leaving the technology age, where getting the “factoids” is enough....
- We are entering a new era, a knowledge age in which integrating information is key!





# **Daniel Pink (2005), author of *A Whole New Mind* writes:**

*“The past few decades have belonged to a certain kind of person with a certain kind of mind-- computer programmers who could crank code, lawyers who could craft contracts, MBAs who could crunch numbers. But the keys to the kingdom are changing hands.*”

***The future belongs to a very different kind of person with a very different kind of mind***

***- creators and empathizers, pattern recognizers, and meaning makers. These people -- artists, inventors, designers, storytellers, caregivers, consolers, big picture thinkers -- will now reap society’s richest rewards....***

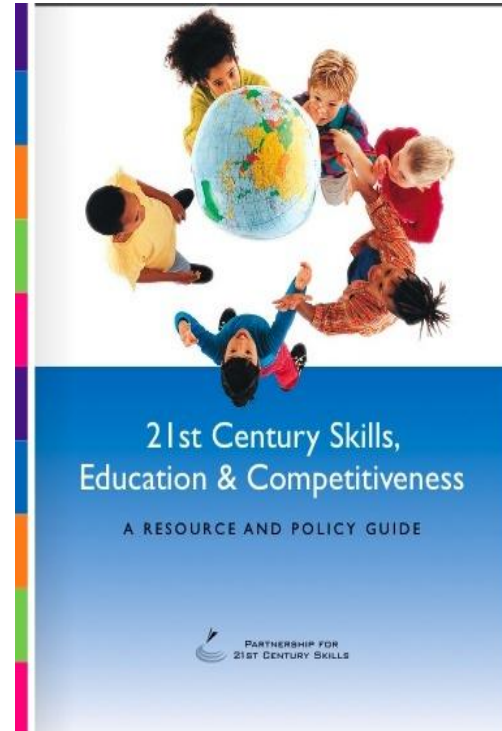




# Partnership for the 21<sup>st</sup> Century Skills writes:

(September 10, 2008)

In an economy driven by innovation and knowledge ... in marketplaces engaged in intense competition and constant renewal ... in a world of tremendous opportunities and risks ... in a society facing complex business, political, scientific, technological, health and environmental challenges ... and in diverse workplaces and communities that hinge on collaborative relationships and social networking ... **the ingenuity, agility and skills** of the American people are crucial to U.S. competitiveness.



# The consequence for society is huge, between raising ...



**ROBOTS?**



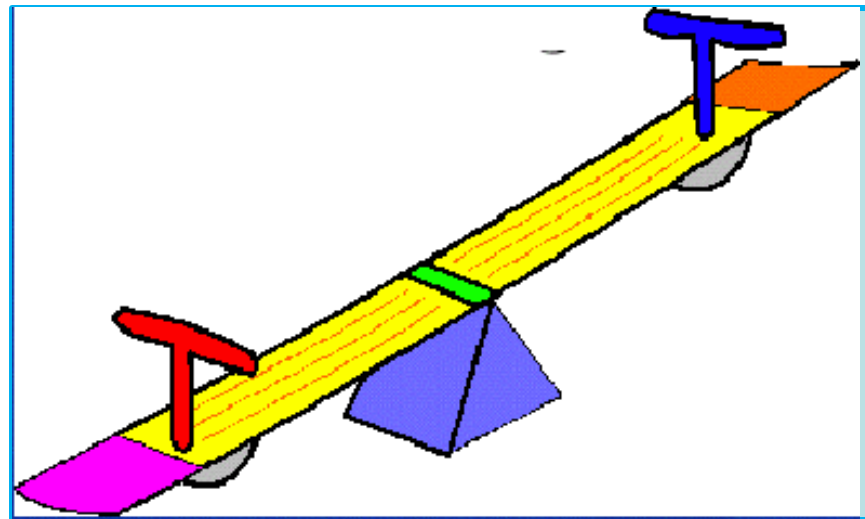
**CREATIVE  
THINKERS?**

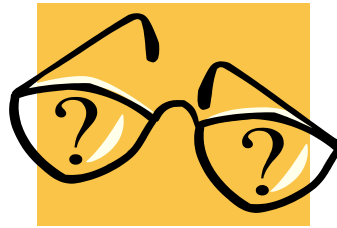




# Our Challenge is to Balance...

between the desire to teach “academics” and “sooner rather later” with the need to foster play as a foundation for learning skills like collaboration, communication, content, and creative innovation, confidence!





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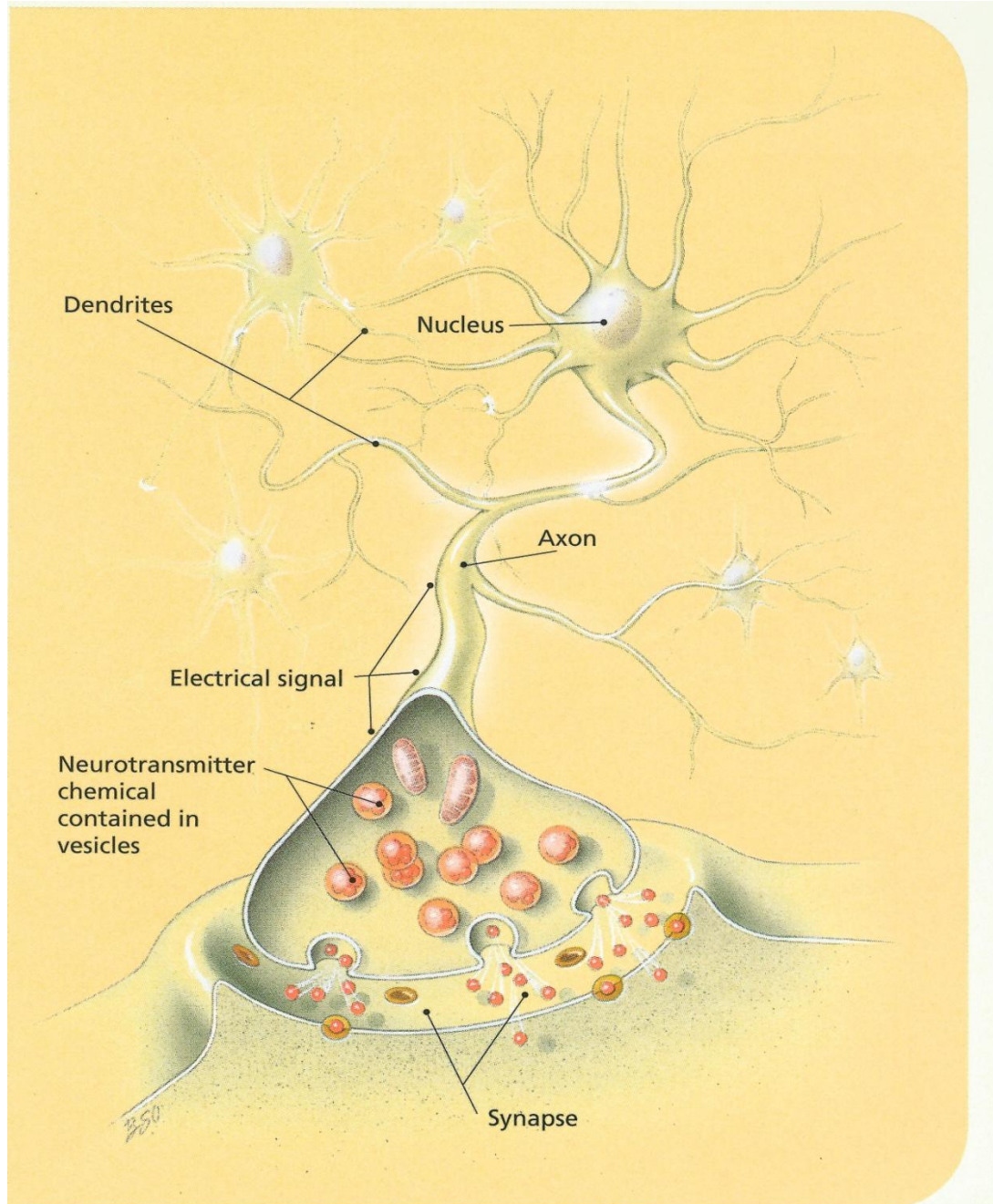
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# Brain Architecture



- Most current thinking on cognitive development!
- Brain cells are called neurons
- Neurons have a head called a nucleus, an axon (usually one) that sends signals, and many many dendrites that receive signals
- When the axons and dendrites meet they form a synapse and exchange impulses
- The forming of synapse after synapse is what forms the “wiring” or “architecture” of the brain

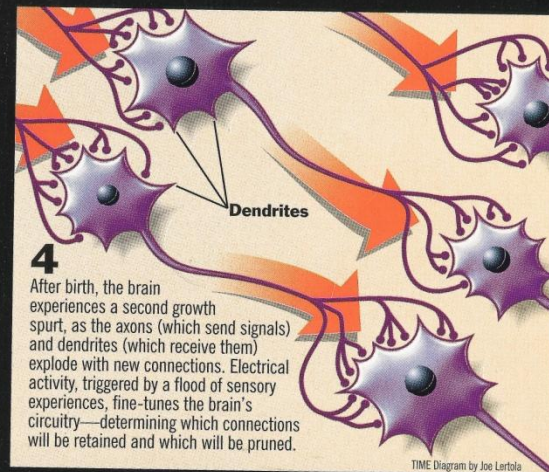
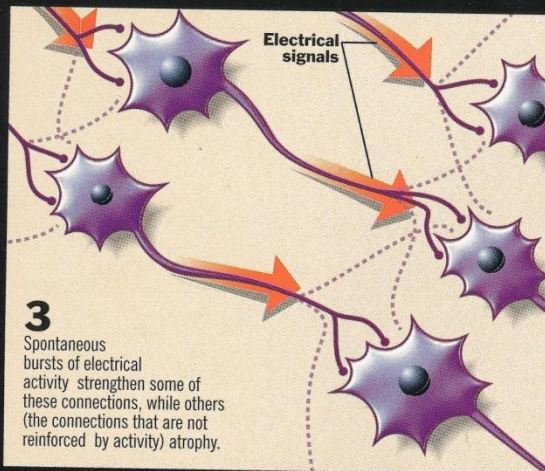
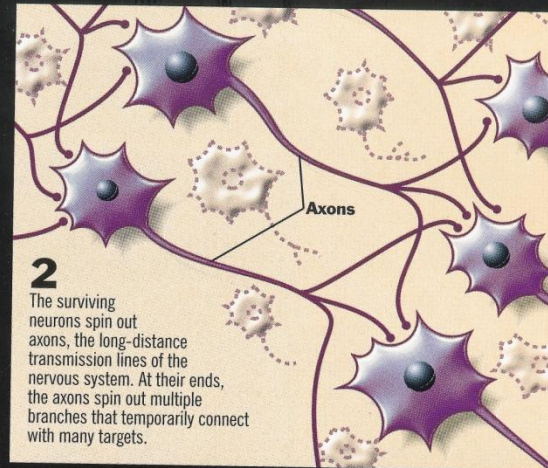
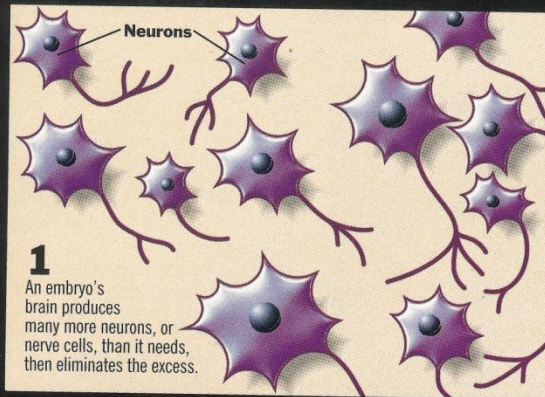


# Neuron

# Wiring the Brain



## Wiring the Brain



1 At birth many more cells than needed

2 Surviving neurons spin out dendrites to make temporary connections

3 Spontaneous bursts of energy (resulting from human interactions) strengthen some, making connections, while other atrophy

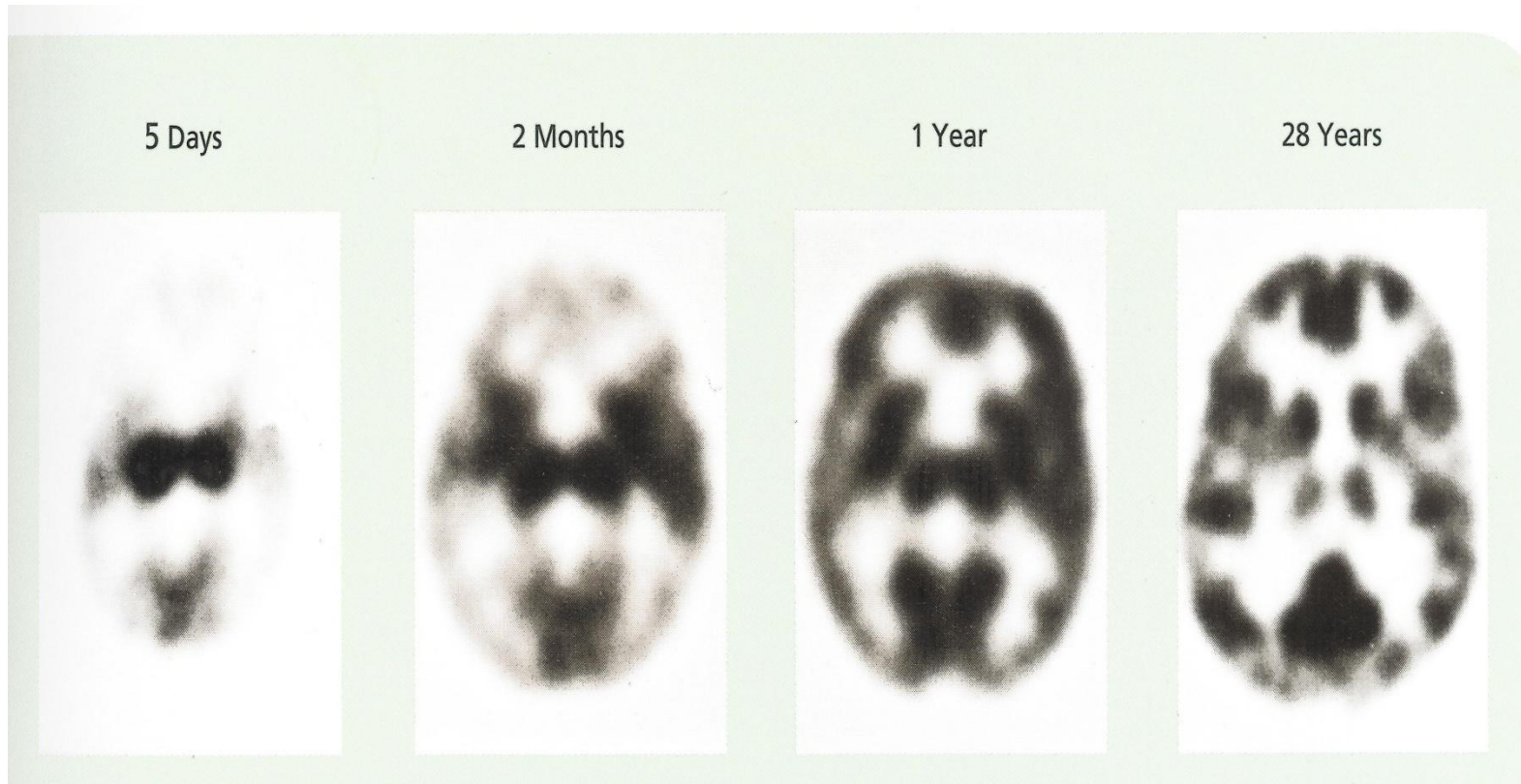
4 Fine tuning occurs with sensory experiences, pruning begins







# Rapid Growth



Brain at age 1 more closely resembles that of an adult



# What is Normal Development?

- Predictable and patterned stages
- Unique rates
- Earlier is not better
- Based on the following
  - Heredity
  - Temperament
  - Culture
  - Environment and Experiences
  - Intelligences



# Normal Development Can...

- Be sporadic and inconsistent
- “Appear” to have setbacks
- Include negative and positive behaviors, both of which help the child grow and develop