Our aim is to

re-define play and 
re-imagine learning

We are dedicated to building a future in which learning through play empowers children to become creative and engaged, lifelong learners.

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Why re-define play?

play
/pleɪ/
verb

1. engage in activity for enjoyment and recreation rather than a serious or practical purpose.
"the children were playing by a pool"

synonyms: amuse oneself, entertain oneself, enjoy oneself, have fun, have a good time, relax, rest, be at leisure, occupy oneself, divert oneself, play games, frolic, frisk, gambol, romp, cavort, caper; More
Play matters
Let’s Play!

1. Choose **Insert** in the top menu
2. Click on **Header and Footer**
3. Write the desired text in the **Footer** field
4. Click **Apply to All**
5. Change the text directly on the slide if you wish different texts

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How many unique combinations?

10?
100?
100,000?
1,000,000?
Yes, really.
The Duck.
If it quacks like a duck . . .
What happened?

self-regulation

executive functioning
attention
mental imagery
long-term memory
systems thinking
visual perception
imitation
adaptive social functioning
perspective-taking
self-assessment

emotional regulation
self-efficacy
visual search
spatial visualization

symbolic representation

kinesthetic awareness
sensory-motor skills
mental rotation task performance
working memory

spatial reasoning

fine motor skills
short-term memory
cognitive flexibility

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Learning Through Play

AGE: 1 4 8 12 16 20 24 28 32

Playful experiences in the early years help build...  ...the critical skills for learning throughout a lifetime.

Early indicators for...

- attention
- self-control
- spatial understanding
- motivation and confidence
- problem-solving and reflection
- perspective-taking and collaboration
- imagination and symbolic representation

...later success

Education
Health
Employment
Productivity
The role of play in child development

1. Physical play
2. Play with objects
3. Symbolic play
4. Pretence and socio-dramatic play
5. Games with rules
A holistic approach to children’s learning and development.

Real Child Development

PHYSICAL
Being physical active, understanding movement and space, through practice of sensory-motor skills, spatial understanding and an active and healthy body.

COGNITIVE
Concentration, problem-solving and flexible thinking, by learning to solve complex tasks and building effective strategies to find solutions.

CREATIVE
Generating ideas, expressing them and transforming them into reality, creating associations, symbolizing and representing ideas and providing meaningful experiences for others.

EMOTIONAL
Building confidence, self-control and reflection through inner motivation, setting goals, knowing one’s own limits, practicing, failing and succeeding.

SOCIAL
Collaborating, communicating and understanding other people’s perspectives through sharing ideas; negotiating rules and building empathy.
1. Physical competence

Being physically active, understanding movement and space through practice of sensory-motor skills, spatial understanding and an active and healthy body.

Infants who were more motorically mature and who explored more actively at 5 months and 4 years of age achieved higher academic levels as 11 and 14 year-olds. \((N=374)\).

\((\text{Bornstein et.al. 2013})\)

Spatial ability in grade school had significant correlation to careers 11 years later.

\((\text{Verdine et.al. 2014})\)

Spatial abilities are vital for mathematics.

\((\text{Ansari et al., 2003; Cheng & Mix, 2012; Gunderson, Ramirez, Beilock, & Levine, 2012; Hegarty & Kozhevnikov, 1999; Rasmussen & Bisanz, 2005})\)
2. Social competence

Collaborate, communicate and understand other people’s perspectives by sharing ideas, negotiating rules and building empathy.

Children who were more likely to “share,” “be helpful,” “listen” and “resolve problems” in kindergarten were more likely to earn higher degrees and hold full-time jobs nearly two decades later (N=753). (Jones, Greenberg & Crowley 2015)

Children’s ability to relate to peers at age 4 may help later academic performance at age 11, regardless of executive functioning skills (N=944) (e.g., Sabol & Pianta, 2012).

Early social skills (e.g., cooperation, empathy, sharing) assessed by parents, teachers and peers when children were 8 yrs old significantly predicted achievement averaged across multiple academic areas at age 13 (N=294). (Caprara et al. 2000)
3. Emotional competence

**Building confidence, self-control and reflection through inner motivation when setting goals, knowing limits, regulating and expressing emotions**

Accomplishments were often better predicted by **self-efficacy** beliefs than by knowledge or skills.  
(Pajares, 2002)

Recognizing emotions in oneself and others and verbalizing them, as well as controlling emotional expression, are key explanatory factors for the mastery of attention.  
(von Salisch, Hänel & Denham 2015)
4. Creative competence

Generating ideas, expressing them and transforming them into reality through associations and symbolic representations.

Working memory and inhibitory control significantly predict creativity.
(Benedict et.al. 2007)

98% of us are creative geniuses, at the age of 3.
At 25, fewer than 2%.
(Land & Jarmin, 1992)

Pretend play (imaginative play) predicts divergent thinking over a 4-year period.
(Ross, Robins & Christiano 1999)

Openness to experience, along with intellect, predicts creative achievement across the arts and sciences.
(Kaufman et.al. 2015)

Green = attention network
Red = imagination network
5. Cognitive competence

Concentration, problem-solving and flexible thinking. Learning to solve complex tasks and build effective strategies to find solutions.

Working memory and cognitive flexibility are significant predictors of reading and early literacy.
(Abreu et.al. 2014)

Cognitive flexibility crucial for early reading comprehension.
(Cole et.al. 2014)

No advantage to learn to read from age 5.
When children reach age 11, there were no difference between the reading ability of the children who started reading at age 5 and at 7. On the contrary, the ones starting at age 7, seemed to have slightly better reading comprehension. (N=287) (Suggata et.al. 2012)
Executive Functioning

attention
working memory
cognitive flexibility
Executive Functioning

RED  BLUE  BLACK  GREEN
ORANGE  YELLOW
Executive Functioning

At age 33, adults who had shown less childhood self-control had poorer health, less wealth, and were more likely to be engaged in criminal activity than those who had shown greater self-control as children. (Moffit et.al. 2011)

attention
working memory
cognitive flexibility
The foundation for Learning through Play comes from:

- Safe Environment
- Social Support
A few disclaimers:

- Learning skills vary greatly within age groups.
- Variations across culture and context
- Personalities influence ability.
- We still need more research…
When we play, we are . . .

- Motivated by our own interest
- Actively engaged (hands-on)
- Challenged at our own level
- Experimenting Taking risks
Play needs champions.
Join Us!