

# Cognitive Development – Early Numeracy: Birth-5

## Key Concepts 1

### 1 Object permanence 1.1

- 1 Birth to Nine Months: Track moving objects and begin to understand that people and objects no longer in sight still exist 1.1.1
  - 2 Nine Months to Eighteen Months : Show understanding that people and objects no longer in sight still exist (E.g. Molly watches her mother put keys in her purse. Molly then searches in the purse to find them.) 1.1.2
  - 3 Eighteen to Twenty-Four Months: Can find objects that are not in sight 1.1.3
  - 4 Twenty-Four to Thirty Months: Ask for people or things that are not in sight 1.1.4
  - 5 Thirty Months to Three Years: Enjoy hiding games 1.1.5
  - 6 Three Years: Play simple memory games 1.1.6
  - 7a Four- and Five-Year-Olds: Talk about things or people that are not present 1.1.7A
  - 7b Four- and Five-Year-Olds: Use a variety of forms (drawings, block structures, movement, and other materials) to represent their ideas and feelings 1.1.7B
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## Exploring the Physical World <sup>2</sup>

### 1 Physical world <sup>2.1</sup>

- 1 Birth to Nine Months: Explore objects in various ways using their senses <sup>2.1.1</sup>
  - 2 Nine Months to Eighteen Months : Through trial and error, begin to develop an understanding of some basic physical science concepts such as gravity, force, and motion. (E.g. Penelope repeatedly drops her cup off the high chair and watches it fall to the floor.) <sup>2.1.2</sup>
  - 3 Eighteen to Twenty-Four Months: Through repeated observation, experimentation, and/or exploration, further develop their understanding of basic physical science concepts and the natural world <sup>2.1.3</sup>
  - 4 Twenty-Four to Thirty Months: Show interest in observing, experiencing, and/or exploring physical science concepts and the natural world <sup>2.1.4</sup>
  - 5 Thirty Months to Three Years: Focus on small details in indoor and outdoor environment (E.g. Esme lays on the grass and watches an ant move.) <sup>2.1.5</sup>
  - 6 Three Years: Ask many questions about the physical world and investigate with adult guidance <sup>2.1.6</sup>
  - 7a Four- and Five-Year-Olds: Begin to identify the properties of various living things and what living things need to be able to survive <sup>2.1.7A</sup>
  - 7b Begin to talk about environmental changes and phenomena (weather, seasons, sun, and moon) <sup>2.1.7B</sup>
  - 7c Show interest in caring for the earth and environment <sup>2.1.7C</sup>
  - 7d Explore simple physical science concepts such as force, motion, and gravity (E.g. Three children in the preschool room build an elaborate structure with blocks and ramps and then run different marbles through it to see which is the fastest.) <sup>2.1.7D</sup>
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## Exploring the Social World 3

### 1 Social conventions 3.1

- 1 Birth to Nine Months: Recognize cultural and social labels for people and relationships in their family 3.1.1
- 2 Nine Months to Eighteen Months : Use culturally appropriate labels for people and relationships in their family 3.1.2
- 3 Eighteen to Twenty-Four Months: Recognize that there are routines and may test the expectations 3.1.3
- 4 Twenty-Four to Thirty Months: Participate in expected behavior including greetings and goodbyes 3.1.4
- 5 Thirty Months to Three Years: Understand that certain rules and customs apply in some situations and not in others (E.g. Sam tells his baby sister, “No yelling in church.”) 3.1.5
- 6 Three Years: Demonstrate and follow different customs in different settings 3.1.6
- 7a Four- and Five-Year-Olds: Show interest in caring for the classroom environment 3.1.7A
- 7b Four- and Five-Year-Olds: Participate in developing classroom rules 3.1.7B
- 7c Four- and Five-Year-Olds: Practice culturally appropriate social conventions (E.g. Satori uses chopsticks when eating meals at home.) 3.1.7C
- 7d Four- and Five-Year-Olds: With guidance from adults, can engage in problem-solving to resolve difference in perspectives 3.1.7D

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## 2 Self, family, and community 3.2

- 1 Birth to Nine Months: Recognize primary caregivers 3.2.1
- 2 Nine Months to Eighteen Months : Interact with members of their household and their classroom Relates to social/emotional construct of relationships and social skills with peers 3.2.2
- 3 Eighteen to Twenty-Four Months: Identify family members of other children in their class 3.2.3
- 4 Twenty-Four to Thirty Months: May sort items or toys into “families” and label with different roles in their own terms 3.2.4
- 5 Thirty Months to Three Years: Explore various roles in their home and classroom (E.g. Natalie tells James, 20 months old, that he is the baby and that she is going to be the mommy. She then begins acting out the role by giving him a bottle.) 3.2.5
- 6 Three Years: Ask questions about other people’s experiences in their families and communities 3.2.6
- 7a Four- and Five-Year-Olds: Know basic personal information 3.2.7A
- 7b Four- and Five-Year-Olds: Are aware of own family relationships and show curiosity about others’ families 3.2.7B
- 7c Four- and Five-Year-Olds: Notice similarities and differences in people, families, and social groups 3.2.7C
- 7d Four- and Five-Year-Olds: Recognize some people, places, and occupations in their communities 3.2.7D
- 7e Four- and Five-Year-Olds: Act out family roles and occupations in dramatic play 3.2.7E
- 7f Four- and Five-Year-Olds: Show interest in issues of friendship and fairness 3.2.7F