

Area 8: Science

Gathers information from discoveries and conducts investigations 8.1

Birth-12 months

- A Notices objects and events in their environment 8.1.A
 - B Explores toys or other safe objects 8.1.B
 - C Reacts to changes in the environment 8.1.C
 - D Shows sensory likes and dislikes 8.1.D
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Approximately 12-24 months

- E Investigates objects to build understanding of the environment through repetitive play 8.1.E
 - F Uses five senses to identify and interact with new and familiar objects 8.1.F
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Approximately 24-36 months

- G Asks simple questions about observations of their environment using language, behavior and interactions 8.1.G
 - H Begins to explore scientific tools 8.1.H
 - I Uses sensory experiences to learn about and respond to surroundings 8.1.I
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Approximately 3-4 years

- J Asks questions about their environment: 8.1.J
 - a Begins to identify and look for information that will help answer questions and solve problems 8.1.J.A
 - b Uses scientific tools and technology purposefully to conduct investigations 8.1.J.B
- K Uses the five senses as tools to make observations to describe the properties of objects and phenomena 8.1.K

Approximately 4-5 years

- L** Plans and conducts simple investigations to answer questions or to design solutions to scientific or engineering problems 8.1.L
 - M** Uses observational tools to extend the five senses 8.1.M
 - N** Observes, investigates and describes objects, materials and other physical science phenomena in the classroom and outdoor environments 8.1.N
 - O** Observes, asks questions and begins to recognize patterns and relationships in natural phenomena 8.1.O
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Uses reasoning to make sense of information from discoveries and investigations 8.2

Birth-12 months

- A** Uses trusted relationships to gain understanding of the living and non-living world 8.2.A
 - B** Shows understanding people exist when they cannot be seen and objects exist even when out of sight 8.2.B
 - C** Notices and reacts to cause and effect 8.2.C
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Approximately 12-24 months

- D** Manipulates unfamiliar items to see how they function 8.2.D
 - E** Explores cause and effect relationships by engaging in problem solving through trial and error 8.2.E
 - F** Intentionally repeats actions to produce a desired effect 8.2.F
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Approximately 24-36 months

- G** Makes a choice to reach a desired outcome 8.2.G
 - H** Begins to make comparisons and categorize non-living things based on observable characteristics 8.2.H
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Approximately 3-4 years

- I** Compares and categorizes living and non-living things based on observable characteristics 8.2.I
 - J** Observes, predicts and asks questions to understand how things work 8.2.J
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Approximately 4-5 years

- K** Uses observations from investigations to notice similarities and differences in living things and to make guesses about their needs 8.2.K
 - L** Describes and compares the properties and motions of objects in terms of speed and direction, based on exploration 8.2.L
 - M** Uses prior experiences and/or data from observations to identify patterns in how living and nonliving things stay the same or change over time and/or when conditions change 8.2.M
 - N** Analyzes what happened during an investigation to make meaning 8.2.N
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Shares information and understanding about discoveries and investigations 8.3

Birth-12 months

- A** Vocalizes and gestures to communicate with others: 8.3.A
 - a** Gains attention 8.3.A.A
 - b** Shows preferences and dislikes 8.3.A.B
 - B** Uses repetitive actions to demonstrate new learning experiences 8.3.B
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Approximately 12-24 months

- C** Shares information and questions using gestures and/or facial expressions 8.3.C
 - D** Responds to questions or statements to engage in learning and exploration 8.3.D
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Approximately 24-36 months

- E** Communicates in a variety of ways to share information: 8.3.E
 - a** Expresses wonder and curiosity 8.3.E.A
 - b** Tells about a specific experience or activity 8.3.E.B
 - c** Draws simple pictures to represent objects 8.3.E.C
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Approximately 3-4 years

- F** Communicates in a variety of ways to share information: 8.3.F
 - a** Tells about a specific experience, activity or observation 8.3.F.A
 - b** Answers questions using experiences and observations 8.3.F.B
 - c** Begins to ask questions to seek more information on a topic of interest 8.3.F.C
 - d** Draws simple pictures to represent observations of objects 8.3.F.D
 - e** Uses scientific vocabulary words with modeling and support from an adult 8.3.F.E
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Approximately 4-5 years

- G** Generates explanations and communicates ideas and/or conclusions about investigations: 8.3.G
 - a** Communicates with others about questions, actions, ideas, observations or results using labels and adjectives 8.3.G.A
 - b** Draws increasingly complex pictures to represent their observations of objects and/or of changes to objects or the environment 8.3.G.B
 - c** Uses scientific content words when investigating and describing observable phenomena 8.3.G.C