New York Prekindergarten Learning Standards

Cognition and Knowledge of the World: Science

PHYSICAL SCIENCE

1 **Asks questions and uses observations to test the claim that different kinds of matter exist as either solid or liquid** PK.SCI.1

- a Observes and describes similarities and differences between solids and liquids based on their physical properties PK.SCI.1.A
- b Compares and categorizes solids and liquids based on their physical properties PK.SCI.1.B

2 **Uses tools and materials to design and build a device that causes an object to move faster with a push or a pull** PK.SCI.2

- a Explores forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces (e.g., a string attached to an object being pulled or a ramp to increase the speed of an object) PK.SCI.2.A

3 **Plans and conducts investigations to provide evidence that sound is produced by vibrating materials** PK.SCI.3

- a Investigates vibrating materials such as percussion instruments (e.g., drum, triangle), string instruments (e.g., guitar, piano), wind instruments (e.g., recorder, whistle), and audio speakers PK.SCI.3.A

LIFE SCIENCES

4 **Observes familiar plants and animals (including humans) and describes what they need to survive** PK.SCI.4

- a Explores what a variety of living organisms need to live and grow (e.g., water, nutrients, environment) PK.SCI.4.A

5 **Plans and conducts investigations to determine how familiar plants and/or animals use their external parts to help them survive in the environment** PK.SCI.5

- a Observes the relationships between the physical and living environment (e.g. views habitats of plants and animals) PK.SCI.5.A
- b Recognizes the different structures of familiar plants and animals (e.g., roots, stems, leaves for plants and eyes, ears, mouth, arms, legs for animals) PK.SCI.5.B

6 **Develops a model to describe that some young plants and animals are similar to, but not exactly like, their parents.** PK.SCI.6

- Observes and represents familiar plants and animals (e.g., draws pictures, builds and plays with toy or model animals in their habitats) PK.SCI.6.A

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b Compares baby and adult animals and recognizes similarities (e.g., matches adult stufed animals with their baby in a play setting) PK.SCI.6.B

EARTH AND SPACE SCIENCES

7 Observes and describes the apparent motions of the sun, moon, and stars to recognize predictable patterns PK.SCI.7

a Explores characteristics and movements of the sun, moon, stars and clouds (e.g., the sun and moon appear to move across the sky in a predictable pathway, day and night follow predictable patterns, seasons change in a cyclical pattern, the moon's shape appears to change in a cyclical pattern, and stars other than our Sun can be visible at night depending on local weather conditions) PK.SCI.7.A

8 Asks questions, makes observations, and collects and records data using simple instruments to recognize patterns about how local weather conditions change daily and seasonally. PK.SCI.8

a Discusses daily weather conditions and the impact of weather (e.g., recorded over time and how those conditions impact student activities and what clothes they wear) PK.SCI.8.A

b Uses vocabulary to describe weather conditions (e.g., cloud cover (sunny, partly cloudy, cloudy, foggy), precipitation (no precipitation, snow, hail, rain), wind (no wind, some wind, strong wind), and temperature (cold, cool, warm, hot)) PK.SCI.8.B

9 Plans and conducts an investigation to determine the efect of sunlight on Earth's surface. PK.SCI.9

a Discusses the efects of the sun (e.g., provides light, creates shadows, and the warming efect on living organisms and nonliving things.) PK.SCI.9.A

ENGINEERING DESIGN

10 Asks questions, makes observations, and gathers information about a situation people want to change to defne a simple problem that can be solved through the development of a new or improved object or tool PK.SCI.10

11 Develops a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem PK.SCI.11

12 Analyzes data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs PK.SCI.12