BD Course Guide

Course Description: Grade K Science
Science instruction is designed to allow students to develop an understanding of content. However, the instruction is using inquiry to develop universal skills. Science instruction has students problem solving, sharing ideas, modeling their thinking, and using evidence to support their ideas.

Adopted Course Primary Resource	Supplementary Resources
• Mystery Science	• Inspire Read Aloud (McGraw-Hill)

Performance Expectations		
Physical Science	**K-PS2-1**	Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
	K-PS2-2	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.
	K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.
	K-PS3-2	Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on an area.
Life Science	**K-LS1-1**	Use observations to describe patterns of what plants and animals (including humans) need to survive.
Earth & Space Science	**K-ESS2-1**	Use and share observations of local weather conditions to describe patterns over time.
	K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
	K-ESS3-1	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
	K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
	K-ESS3-3	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
Engineering, Technology, and the Application of Science	**K-2-ETS1-1**	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
	K-2-ETS1-2	Develop 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.
	K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how

		each performs.

Units of Study (Sequenced)	Standards		Lesson Question(s)	Pacing (Session = 30 Minutes)
Animal Secrets	**K-LS1-1**	Use observations to describe patterns of what plants and animals (including humans) need to survive.	• Why do woodpeckers peck wood? • Where do animals live? • How can you find animals in the woods? • How do animals make their home in the forest?	14 Sessions
	K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.		
	K-ESS3-1	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.		
Plant Secrets	**K-LS1-1**	Use observations to describe patterns of what plants and animals (including humans) need to survive.	• Are plants alive? • How do plants and trees grow? • Why would you want an old log in your backyard?	11 Sessions
	Term 1 Ends (Lessons 1-5)			
	K-ESS3-3	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.		
Wild Weather	**K-ESS2-1**	Use and share observations of local weather conditions to describe patterns over time.	• How can you get ready for a big storm? • Have you ever watched a storm? • How many different kinds of weather are there?	11 Sessions
	K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.		
Term 2/Semester 1 Ends				
Circle of Seasons	**K-ESS2-1**	Use and share observations of local weather conditions to describe patterns over time.	• How do you know what to wear for the weather? • What will the weather be like on your birthday? • Why do birds lay eggs in the spring?	11 Sessions
	K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.		
Sunny Skies	**K-PS3-1**	Make observations to determine the effect of sunlight on Earth's surface.	• How could you walk barefoot across hot pavement without	11 Sessions

	K-PS3-2	Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on an area.	burning your feet? • How could you warm up a frozen playground? • Why does it get cold in winter?	
	K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.		
	K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.		
Term 3 Ends				
Force Olympics	**K-PS2-1**	Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	• What's the biggest excavator? • Why do builders need so many big machines? • How can you knock down a wall made of concrete? • How can you knock down the most bowling pins? • How can we protect a mountain town from falling rocks? • How could you invent a trap?	21 Sessions
	K-PS2-2	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.		
	K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.		
	K-2-ETS1-2	Develop 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.		
	K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.		
Term 4/Semester 2 Ends				