

# WEST DEPTFORD SCHOOL DISTRICT

<b>Content Area: Science</b>			
<b>Course Title: Grade 6 Science</b>		<b>Grade Level: 6</b>	
		<b>Weeks Spent</b>	
<b>Quarter 1: Solar System and Beyond/Begin Ecology</b>		<b>9 weeks</b>	
<ul style="list-style-type: none"> <li>● What have we learned from missions to space?</li> <li>● How do we predict changes in the moon's appearance?</li> <li>● Why don't we see solar and lunar eclipses more often?</li> <li>● What does Earth's orbit around the sun have to do with the seasons?</li> <li>● What types of objects are found in space?</li> <li>● What features make each planet in our solar system unique?</li> <li>● How does gravity affect the motions of objects in space?</li> <li>● What effects can an introduced species have on an ecosystem?</li> <li>● Do introduced species' populations change based on their new environment?</li> <li>● What is an owl pellet's role in a food web?</li> <li>● How do matter and energy move in an ecosystem?</li> <li>● How does the availability of food affect an ecosystem?</li> <li>● What is the role of decomposers in an ecosystem?</li> </ul>			
<b>Quarter 2: Finish Ecology/Fields and Interactions</b>		<b>9 weeks</b>	
<ul style="list-style-type: none"> <li>● How do introduced and invasive species negatively affect an ecosystem?</li> <li>● What strategies can be taken to help preserve ecosystems and populations?</li> <li>● How do engineers use a design process to solve problems?</li> <li>● How can energy be transferred?</li> <li>● What determines the amount of gravitational force between objects?</li> <li>● How can we visualize a magnetic field?</li> <li>● What are the effects of static electricity?</li> <li>● What determines the amount and direction of electrostatic force?</li> <li>● What is the relationship between electric and magnetic fields?</li> </ul>			
<b>Quarter 3: Force and Motion</b>		<b>9 weeks</b>	

	<ul style="list-style-type: none"> <li>• How can you measure and graph the speed of a moving object?</li> <li>• How does the mass of an object affect its kinetic energy?</li> <li>• What causes an object to change direction?</li> <li>• What causes an object to change speed?</li> <li>• What is the mathematical relationship between force, mass, and acceleration?</li> <li>• How are Newton’s laws applicable in everyday life?</li> </ul>		
	<b>Quarter 4: Weather</b>		<b>9 weeks</b>
	<ul style="list-style-type: none"> <li>• What is climate change, and how does it affect us?</li> <li>• How are daily weather data different from seasonal weather data?</li> <li>• How have severe weather events shaped the earth?</li> <li>• How can climate patterns help us predict future changes?</li> <li>• How do different surfaces of the earth gain and lose thermal energy?</li> <li>• How does water behave when it mixes?</li> <li>• How does air behave when it mixes?</li> </ul>		
<i>Date Created: August 2022</i> <i>Revised: August 2022</i>		<i>Board Approved on: August 2022</i> <i>Revised Board Approved: August 2022</i>	

**WEST DEPTFORD SCHOOL DISTRICT**  
**Sixth Grade Science Pacing Guide 2022 – 2023**  
**Unit: Solar System and Beyond**

<b>Activity Number</b>	<b>Title</b>	<b>Number of Days</b>
1	Exploring Space	2
2	The Predictable Moon	3
3	Explaining the Moon’s Phases	3
4	The Moon’s Orbit	2
4	Moon Phase Simulations	1
5	Changing Sunlight	2

6	A Year Viewed From Space		2
7	Earth's Tilt		4
8	Earth on the Move		2
9	Observing Objects in Space		3
	Unit 1 Quiz		1
10	Drawing the Solar System		1
11	How Big Are the Planets?		2
12	Identifying Planets		2
13	Gravitational Force		2
14	The Effects of Gravity		1
15	Modeling Gravity		1
16	Choosing a Mission		2
	Unit 1 Test		1

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**Sixth Grade Science Pacing Guide 2022 – 2023**  
**Unit: Ecology**

<b>Activity Number</b>	<b>Title</b>		<b>Number of Days</b>
1	The Miracle Fish?		2
2	Introduced Species		7
3	Data Transect		2
4	Taking a Look Outside		3
5	A Suitable Habitat		2

6	Ups and Downs		2
7	Coughing Up Clues		5
8	Eating for Matter and Energy		4
9	Population Growths		1
10	Interactions in Ecosystems		2
	Unit 2 Quiz		1
11	Cycling of Matter		2
12	Modeling the Introduction of New Species		2
13	Abiotic Impacts on the Ecosystem		2
14	Effects of an Introduced Species		2
15	Too Many Mussels		1
16	Presenting the Facts		2
	Unit 2 Test		1

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**Unit: Fields and Interactions**

<b>Activity Number</b>	<b>Title</b>		<b>Number of Days</b>
1	Save the Astronaut!		2
2	The Apollo Missions		1
3	Gravitational Transporter		3
4	Gravitational Force		4
5	Mapping Magnetic Fields		1
6	Magnetic Transporter		2

7	Gravitational and Magnetic Fields		4
	Unit 3 Quiz		1
9	Static Electricity		3
10	Electromagnetic Force		2
11	Visualizing an Electric Field		1
12	Electric Field Transporter		1
13	Electric and Magnetic Fields		2
14	Gyrosphere Rescue		2
15	Electric and Electromagnetic Fields		1
16	Evaluating Transporter Designs		1
	Unit 3 Test		1

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**Sixth Grade Science Pacing Guide 2022 – 2023**  
**Unit: Force and Motion**

<b>Activity Number</b>	<b>Title</b>		<b>Number of Days</b>
1	Improving Car and Driver Safety		2
2	Measuring and Graphing Speed		2
3	Speed and Kinetic Energy		2
4	Mass and Kinetic Energy		2
5	Quantifying Kinetic Energy		2
6	Changing Directions		4
7	Changing Speed		2
8	Force, Mass, and Acceleration		2
	Unit 4 Quiz		1
9	Newton's Laws of Motion		3
10	Interacting Objects		2

11	Newton's Third Law		2
12	Collisions and Changes in Motion		2
13	Braking Distance		2
14	Coming to a Stop		2
15	Designing a Car and Driver Safety Systems		1
	Unit 4 Test		1

**WEST DEPTFORD SCHOOL DISTRICT**  
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**Unit: Weather and Climate**

<b>Activity Number</b>	<b>Title</b>		<b>Number of Days</b>
1	Climate Change		2
2	Investigating Local Weather		4
3	Local History of Severe Weather		6
4	Climate Types and Distribution Patterns		4
5	Earth's Surface		2
6	Heating Earth's Surfaces		1
7	Ocean Temperatures		1
8	Investigating Water		2
	Unit 5 Quiz		1
9	Oceans and Climate		2
10	The Causes of Climate		4
11	Worldwide Wind		1
12	Measuring Wind and Speed Direction		1
13	Forecasting Weather		4
14	Atmosphere and Climate		2
15	History of Earth's Atmosphere		1

16	Global Warming		2
17	People, Weather, and Climate		2
	Unit 5 Test		

**WEST DEPTFORD SCHOOL DISTRICT**  
**Sixth Grade Science Lesson Plan Format**  
{45 Minutes of Instruction}

**ENGAGE**

10 minutes

- Do Now - access prior learning / simulate interest/ generate question / visit website

**EXPLORE**

25 minutes

- Objective and guiding question as a class
- Teacher notes/directions/and expectations
- Individual/partner/group activities and labs

**EVALUATE**

10 minutes

- Formative monitoring
- Summative assessment
- Exit ticket