Berlin Brothersvalley School District
Berlin Brothersvalley Middle School
Year at a Glance Curriculum

Science Department
5th Grade Science
5th Grade

Course Description:
In Fifth Grade Science, students explore what they can and cannot see in their natural world. From the sun to the microscopic particles that make up matter, this course dives into many pieces of the scientific puzzle. While analyzing Earth and Space, students compare the natural to the human-made and recognize our world is impacted by interactions of all kinds. Students display their creative and impactful minds through the design process. Please see below for a concise outline of the course.

Units of Study	Competencies	Approximate Time Frame	Standards
Cells and Organisms	Students will be able to distinguish between unicellular and multicellular organisms, diagram what plants need to survive (emphasis on photosynthesis), match parts of a plant to a diagram, label and reiterate the jobs of xylem and phloem, show the movement of matter in the environment, identify roles and matter movement in food chains, interpret food webs, investigate interruptions in food webs, and show energy transfer from the sun to organisms.	8 weeks	3.1.5.A 3.1.5.B 3.2.5.G 3.4.3-5.A
Earth and Space	Students will be able to describe the water cycle and the rock cycle, name parts of the geosphere, biosphere, hydrosphere, and atmosphere and show how they interact, explain why the sun is so bright even though it isn't the biggest star, design a possible solution to an environmental issue, draw patterns of stars and shadows, graph Earth's water, determine properties of minerals, research ways communities protect Earth's resources, identify gravity as the force pushing down, provide ways humans rely on and impact the environment, and determine how landforms affect systems on Earth.	10 weeks	3.3.5.A 3.3.5.D 3.2.5.F 3.3.5.B 3.3.5.C 3.3.5.E 3.3.5.F

Berlin Brothersvalley School District
Berlin Brothersvalley Middle School
Year at a Glance Curriculum

Science Department
5th Grade Science
5th Grade

Matter and Interactions	Students will be able to model that matter is made of tiny particles too small to be seen, make observations and measurements of materials, choose and identify materials based on properties, demonstrate the law of conservation of mass, compare and show physical and chemical changes, interpret and complete chemical formulas for ball-and-stick models, classify elementary substances and compounds, determine how particle motion affects temperature, change of state, and gas pressure, and identify reactants and products.	10 weeks	3.2.5.A 3.2.5.B 3.2.5.C 3.2.5.D 3.2.5.E 3.5.3-5.W 3.5.3-5.M 3.5.3-5.P 3.5.3-5.Q 3.5.3-5.R 3.5.3-5.S 3.5.3-5.T 3.5.3-5.U 3.5.3-5.V
Energy/Human Interactions	Students will be able to evaluate renewable and nonrenewable energy sources, explain the environmental and social impacts of design solutions, communicate ideas about technological products, design a project to hold the most mass, focusing on the mass/volume relationship (density), observe, evaluate and recreate designs based on observations, and evaluate how relationships cause decisions.	8 weeks	3.5.3-5.EE 3.4.3-5.F 3.4.3-5.B 3.5.3-5.B 3.5.3-5.H

*Please visit pdesas.org for a complete list of standards taught in this course and for more information regarding PA State Standards for this course.

Revised 6/20/24