CATHOLIC SCHOOLS *in the* ARCHDIOCESE *of* NEW YORK

In partnership with **Catapult Learning**

KiwiCo

NGSS Standards Alignment

SY22 K-8th Grade Crate Selections

Crystal Chemistry Garden
August delivery for gK-2

NGSS K-2 Standards

2-PS1-1 Matter and Its Interactions

Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

[Clarification Statement: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.]

Bottle Rocket
August delivery for 3-5

NGSS 3-5 Standards

3-PS2-1 Motion and Stability: Forces and Interactions
Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

3-PS2-2 Motion and Stability: Forces and Interactions
Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

4-PS3-1 Energy
Use evidence to construct an explanation relating the speed of an object to the energy of that object.

5-PS2-1 Motion and Stability: Forces and Interactions
Support an argument that the gravitational force exerted by Earth on objects is directed down.

3-5-ETS1-3 Engineering Design
Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Headphones
August delivery for g6-8

NGSS 6-8 Standards

MS-ETS1-1 Engineering Design Define the criteria and constraints of a

design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts
on people and the natural environment that may limit possible solutions.

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. **MS-ETS1-3.** Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

MS-PS2-3 Ask questions about data to determine the factors that affect the strength of electric and magnetic forces. **MS-PS2-5** Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.**MS-PS4-1.** Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave. **MS-PS4-2.** Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.