

Isaac's Kids

Science

Grade 1 & 2

Elective Overview:

Students will learn about the planet Earth. They will find the answers to questions like: What is the earth made of? How long has it existed? How does it change over time? What kinds of things happen under the surface? Students will also learn about the impact that humans have on Earth and discuss ways to prevent negative changes.

Revised: July 2019

Approved by the Montclair Board of Education: August 2019



Montclair Public School Elective Overview

Instructional Plan

Course: Isaac’s Kids

Marking Period or Trimester: one Trimester

Pacing: 8 weeks

NJSLS

Anchor Standard

Strand 1: Earth’s Place in the Universe – 1-ESS1-2

Strand 2: Earth’s Systems-ESS2.D, ESS2.E

Strand 3: Engineering by Design – K2-ETS1-1

Strand 4: Biological Evolution: Unity and Diversity

Framing the Learning

Timeframe	Big Ideas	Essential Questions	Enduring Understandings
Week 1	Identify Isaac Newton and facts about how he contributed to science.	How does Isaac Newton’s work impact science?	Isaac Newton contributed theories and important information as to how our world works and was made and will evolve.

Weeks 2, 3, & 4	Earth's elements and creation and how it continues to evolve.	How did our Earth begin and how has it changed?	Our Earth is made of different elements and contuse to change over time.
Week 5	Identify the parts of the solar system.	How is the solar system connected to our Earth?	The Earth is connected to the solar system and all of the parts depend on each other.
Week 6 & 7	Recycling and taking care of our Earth are important for everyone.	How do we impact the environment on a daily basis?	Everything that we do has an impact on the environment and the future.
Week 8	Observing how objects move in space and applying the laws of motion.	How do objects move in space?	Laws of motion explain how objects move in space.

Evidence of Learning

Instructor will make observations and keep notes. Instructor will give small quizzes on material learned each week.

Activities

Students will research Isaac Newton and apply what they learn in worksheets. They will research volcanos and apply that knowledge. They will observe how the Earth has changed over time and what the Earth is composed of. They will research the solar system. They will research how people impact the environment and how to apply the three Rs- reduce, reuse and recycle. Students will experiment with the first law of motion..

DIFFERENTIATION

Special Education	ELL	Intervention	Acceleration
<ul style="list-style-type: none"> ● Modify and accommodate as listed in student’s IEP or 504 plan ● Prioritize instruction ● Utilize wait-time ● Ensure directions are clear and concise ● Utilize probing and clarifying questions ● Support instruction with scaffolding ● Model (provide step by step instructions) use of learning strategies ● Provide extended time for practice and review of learning strategies ● Identify, categorize, and teach words critical to understanding instructional texts ● Utilize multiple approaches to monitor student understanding ● Create rubrics to develop assessments ● Vary assessments ● Assign peer assisted reading and tutoring ● Provide individual help to all students ● Create opportunities for/Monitor peer collaboration ● Monitor student progress frequently ● Utilize flexible/cooperative grouping based on instructional goals ● Prioritize and chunk lengthy assignments ● Utilize assistive technology, when appropriate ● Provide ongoing, effective, specific feedback ● Model/Utilize graphic organizers ● Provide leveled reading materials ● Utilize visual aids and props (flashcards, pictures, symbols) when possible ● Utilize a multi-sensory approach to new topics 	<ul style="list-style-type: none"> ● Get to know student ● Set high expectations ● Learn/Utilize/Display some words in student’s heritage language ● Allow electronic translator ● Reword, repeat, and clarify directions ● Determine student knowledge and level of understanding ● Research instruction that best matches student need ● Utilize ongoing informal assessments ● Refer to NJDOE Resources: https://www.state.nj.us/education/bilingual/resources/ ● NJDOE ELL Support Descriptions: https://www.state.nj.us/education/modelcurriculum/ela/ELLSupport.pdf <p>*Review Special Education list for additional recommendations.*</p>	<ul style="list-style-type: none"> ● Tiered Interventions following RtI framework ● RtI Intervention Bank ● Foundations Double-Dose (Tier II) ● LLI (Tier III) ● FFI Skill Report: DRA On-Line ● enVision intervention supports NJDOE resources 	<ul style="list-style-type: none"> ● Process should be modified: higher order thinking skills, open-ended thinking, discovery ● Utilize project-based learning for greater depth of knowledge ● Utilize exploratory connections to higher grade concepts ● Contents should be modified: abstraction, complexity, variety, organization ● Products should be modified: real world problems, audiences, deadlines, evaluation, transformations ● Learning environment should be modified: student-centered learning, independence, openness, complexity, groups varied

