

COURSE: 12 – 1 – 1 Science/Social Studies

GRADE LEVEL: 9 – 12

MAIN/GENERAL TOPIC:	SUB-TOPIC:	ESSENTIAL QUESTIONS:	WHAT THE STUDENTS WILL KNOW OR BE ABLE TO DO:	SKILLS:	WHEN STUDENT DOES IT:	ASSESSMENTS:
UNIT 1 INQUIRY/PROBLEM SOLVING	<ul style="list-style-type: none"> Scientific Method 	<ul style="list-style-type: none"> What are the steps in the Scientific Method? How do we observe and collect data? What data do we use to determine a hypothesis? 	<ul style="list-style-type: none"> How to use Scientific method to formulate a hypothesis How to determine if the hypothesis is valid or invalid? 	<ul style="list-style-type: none"> Use senses to make observations Use tools to measure 	September	<ul style="list-style-type: none"> Observation quiz Observation lab Scientific Method Quiz
	<ul style="list-style-type: none"> Scientific Process 	<ul style="list-style-type: none"> How do we make meaningful explanations for our observations? 	<ul style="list-style-type: none"> How to design, implement, and analyze a controlled scientific experiment 	<ul style="list-style-type: none"> Identify controls Analyze data through graphs and tables Compare results to references 	September	<ul style="list-style-type: none"> Lab Reports Observations and conversations during labs
UNIT 2 OUR UNIVERSE: ASTRONOMY	<ul style="list-style-type: none"> Universe Theory 	<ul style="list-style-type: none"> How did the Universe evolve? What are the evidences of the big bang theory? Famous astronomers 	<ul style="list-style-type: none"> Know expanding universe, black holes, pulsars, constellations, Big Bang Explain heliocentric vs. geocentric 	<ul style="list-style-type: none"> Students will place stars on a chart that classifies them 	September	<ul style="list-style-type: none"> Astronomy test Design a model of the solar system
	<ul style="list-style-type: none"> Galaxies 	<ul style="list-style-type: none"> What is the organization of the universe? What are the different types of galaxies? 	<ul style="list-style-type: none"> Identify our galaxy as the Milky Way 	<ul style="list-style-type: none"> The students will name and draw the different types of galaxies 	October	<ul style="list-style-type: none"> Worksheets
	<ul style="list-style-type: none"> Planets 	<ul style="list-style-type: none"> How do the planets differ? 	<ul style="list-style-type: none"> Describe the differences between the planets Describe the main features 	<ul style="list-style-type: none"> Students will use the ESRT to obtain data for the different planets Use textbook to find information about planets 	October	<ul style="list-style-type: none"> Dimensions of the solar system lab Solar System Quiz

	<ul style="list-style-type: none"> • Moon 	<ul style="list-style-type: none"> • What causes the moon to change shape? • How long for each cycle of the moon? • What causes the different eclipses? 	<ul style="list-style-type: none"> • Model phases and eclipses • Diagram the moon's effect on tides • Know the length of rotation and revolution • Describe characteristics of the moon due to the lack of atmosphere • Discuss human exploration 	<ul style="list-style-type: none"> • Students will diagram and match pictures of the phases of the moon • Students will diagram Lunar and Solar eclipses 	October	<ul style="list-style-type: none"> • Lunar cycles lab
UNIT 3 OUR PLANET: EARTH'S MOTION, EARTH'S SURFACE	<ul style="list-style-type: none"> • Seasons 	<ul style="list-style-type: none"> • What causes Seasons? 	<ul style="list-style-type: none"> • Know that both angle and revolution together cause the change in seasons • Know that the change in the length varies by latitude and causes seasons 	<ul style="list-style-type: none"> • Demonstrate how the changes in position of the earth on its orbit create the changes in seasons 	November	<ul style="list-style-type: none"> • Modeling the season's lab • Path of the sun lab • Unit test
	<ul style="list-style-type: none"> • Plate Tectonics 	<ul style="list-style-type: none"> • What are plates and how do they move? • What evidence do we have to prove the theory of Plate Tectonics? 	<ul style="list-style-type: none"> • Understand evidence fit of continents, sea floor spreading, plate boundaries • Describe plate movement direction according to reference tables 	<ul style="list-style-type: none"> • Students will assemble and label a map of the different plates • Students will assemble Gondwanaland and understand the fit of the continents 	November	<ul style="list-style-type: none"> • Earthquake and Volcanic cutout lab • Piercing the continents lab
	<ul style="list-style-type: none"> • Earthquakes 	<ul style="list-style-type: none"> • What causes Earthquakes? 	<ul style="list-style-type: none"> • Understand seismic waves, seismographs • Drive wave arrival time according to reference tables and locate an epicenter • Understand tsunamis, prediction, fault types, and Richter scales 	<ul style="list-style-type: none"> • Students will use the ESRT to determine distance and locate earthquakes by drawing tables 	November	<ul style="list-style-type: none"> • Earthquake lab • Worksheets
	<ul style="list-style-type: none"> • Volcanoes 	<ul style="list-style-type: none"> • What causes the difference in volcanoes and eruptions? • Can eruptions be predicted? 	<ul style="list-style-type: none"> • Understand three main types and formation, types of magma, eruptions, locations • Use earthquake information to predict eruption pattern 	<ul style="list-style-type: none"> • Students will plot volcanoes and interpret differences from their locations on the plates 	December	<ul style="list-style-type: none"> • Volcano chart • Volcano lab • Unit test

UNIT 4 EARTH'S DYNAMIC CRUST	<ul style="list-style-type: none"> Factors that Affect Climate 	<ul style="list-style-type: none"> What factors affect the climate of an area? 	<ul style="list-style-type: none"> Study prevailing winds effect on climate Study the effect of altitude, latitude on climate Study the effect of mountain barriers on climate Study how the closeness to large water bodies affects the climate of an area 	<ul style="list-style-type: none"> The students will identify and understand the factors that change climate 	December	<ul style="list-style-type: none"> Latitude Effects on Climate Lab Global Climates worksheet
UNIT 5 METEOROLOGY	<ul style="list-style-type: none"> Hazardous Weather 	<ul style="list-style-type: none"> What factors create the different forms of hazardous weather? 	<ul style="list-style-type: none"> Study hurricanes, tornadoes, thunderstorms – the causes and the effects 	<ul style="list-style-type: none"> The students will graph the different factors that occur as hurricanes pass 	January	<ul style="list-style-type: none"> Hurricane lab Tornado lab Severe weather videos Weather test
	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 		<ul style="list-style-type: none"> 		<ul style="list-style-type: none">
SOCIAL STUDIES UNIT 1 REFERENCE MATERIAL	<ul style="list-style-type: none"> Primary vs. secondary sources 	<ul style="list-style-type: none"> Why and how do we use maps? What is an almanac? What is an atlas? How to find out information using reference books of the computer. What are primary sources and why are they useful? What are secondary sources and why might someone use them? 	<ul style="list-style-type: none"> Read and interpret maps, charts, and graphs. Following directions Geography vocabulary and Identification Use of an atlas, almanac, hardcopy or computer to access information. Various types of primary and secondary source documents. 	<ul style="list-style-type: none"> Ability to read, interpret and utilize maps, almanacs, atlases and other reference materials. Ability to examine and evaluate sources. Answer questions about documents 	January – February	<ul style="list-style-type: none"> Create a political maps of the United States Create a topographical map of New York State Quiz on geographical terms Identification of primary and secondary sources.
UNIT2 THE WORLD AROUND US	<ul style="list-style-type: none"> Holiday Celebrations 	<ul style="list-style-type: none"> What are some of the holidays celebrated around the world? 	<ul style="list-style-type: none"> Cultures Holidays and Celebrations Religions Calendar and Timelines 	<ul style="list-style-type: none"> Be able to read and interpret timelines Be able to locate different locations on a map Be able to recognize the 	Ongoing throughout the calendar year	<ul style="list-style-type: none"> Create a booklet of holidays celebrated around the world

				reasons why people celebrate different holidays		
UNIT 3 NEW YORK STATE	•	<ul style="list-style-type: none"> • Who are the important people of New York? • What are the important historical events that happened in New York State? • What are the main geographical features of New York State? • What are the vital industries of New York State? • What are the major cities and their importance to New York State? • What are the major tourist attractions in New York State and their significance to the state? 	<ul style="list-style-type: none"> • Important people of New York • Important events in New York State • The population and cities in New York • Geography and industry of New York • Major tourist attractions located in New York State 	<ul style="list-style-type: none"> • Map reading • Research skills • Report writing 	February-March	<ul style="list-style-type: none"> • Research an important person from New York State and write a report/presentation about that person • Create a series of maps illustrating the important aspects of New York • Create a power point presentation about tourist attractions in New York State
UNIT 4 GLENS FALLS	•	<ul style="list-style-type: none"> • What industries led to the formation of Glens Falls? • How is Glens Falls different today from when it was first established? • Who are some of the important people in the founding and development of Glens Falls 	<ul style="list-style-type: none"> • History of Glens Falls • Important Events in Glens Falls • Important People from Glens Falls 	<ul style="list-style-type: none"> • Be able to read current and older maps • Interpret pictures • Timelines • Computer skills 	March-April	<ul style="list-style-type: none"> • Web Quest on Glens Falls, New York • Quizzes and tests on Glens Falls

<p>UNIT 5 CITIZENSHIP AND GOVERNMENT</p>	<ul style="list-style-type: none"> Federalism and Branches of Government 	<ul style="list-style-type: none"> What is a democracy? How is our government structured? How are laws made and how do they affect each person? What are some important Supreme Court decisions and their impact on society? 	<ul style="list-style-type: none"> Executive Branch – USA and NYS Legislative Branch – USA and NYS Judicial Branch – USA and NYS Important Supreme Court decisions United States Constitution 	<ul style="list-style-type: none"> Letter Writing Essay Writing Research Skills Computer Skills 	<p>March, April, and May</p>	<ul style="list-style-type: none"> Written test {multiple choice, matching, and short answer} Graphic organizers Note shells
	<ul style="list-style-type: none"> Bill of Rights and Criminal Justice System 	<ul style="list-style-type: none"> What are a person's rights guaranteed by the Bill of Rights What are each individual's responsibilities to society? How is the judicial system related to the Bill of Rights? 	<ul style="list-style-type: none"> Important dates in the founding of the United States Bill of Rights Laws Criminal Justice System 	<ul style="list-style-type: none"> Research skills Interpreting timelines Graphic organizers 	<p>May and June</p>	<ul style="list-style-type: none"> Create a PowerPoint illustrating the amendments Create a visual about crimes and the criminal justice system
<p>UNIT 6 IMPORTANT EVENTS IN AMERICAN HISTORY</p>	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> What are the causes of the Civil War? What are the causes of the Great Depression? What wars has the United States been involved in since the Civil War? 	<ul style="list-style-type: none"> Civil War Great Depression World War I World War II Korean War Vietnam War Persian Gulf 	<ul style="list-style-type: none"> Graphic Organizers Maps Note Shells Timelines 	<p>Throughout the year</p>	<ul style="list-style-type: none"> Tests and quizzes