Standard A: *Science as Inquiry*

Guides to the Standard	Mission	Online Activity	Correlated Classroom Activities
Identify questions that can be answered through scientific investigations	1	Enemy Agents Koch's Concept	*Activity 3:* Microbe Meals
	2	Microscope w/ Bacteria	*Activity 4:* MedBay: 1cell, 2cells…
	3	Lab with Beta	*Activity 1:* NCDC
Design and conduct scientific investigations	1	Koch's Concepts	*Activity 3:* Microbe Meals
	2	Epidemiology	*Activity 4:* MedBay: 1cell, 2cells…
	3	Jenner	*Activity 1:* NCDC
Use appropriate tools and techniques to gather, analyze, and interpret data	1	Koch's Concept	*Activity 3:* Microbe Meals
	2	Microscope w/ Beta	*Activity 4:* MedBay: 1cell, 2cells…
	3	Lab with Beta -id virus	*Activity 1:* NCDC
Develop descriptions, explanations, predictions, and models using evidence	1	Enemy Agents	*Activity 2:* SuperAgent
	2	Infectious Agents Sirius Map	*Activity 2:* Water Everywhere *Activity 4:* MedBay: 1cell, 2cells…
	3	Lab with Beta -Identify Virus	*Activity 1:* NCDC *Activity 3:* The Body Fights Back
Think critically and logically to make relationships between evidence and explanations	1	Koch's Concept	*Activity 1:* Diary of A Disease *Activity 3:* Microbe Meals
	2	Sirius Map	*Activity 1:* Disease Detectives *Activity 2:* Water Everywhere *Activity 3:* No Room for Rumors
	3	Lab with Beta -id virus	*Activity 1:* NCDC
Recognize and analyze alternative explanations and predictions	1	Germ Theory	*Activity 3:* Microbe Meals
	2	Sirius graph	*Activity 1:* Disease Detectives *Activity 2:* Water Everywhere
	3	Jeremy's apartment	*Activity 1:* NCDC
Communicate scientific procedures and explanations	1	Koch's Concept	*Activity 1:* Diary of a Disease *Activity 3:* Microbe Meals
	2	Germ Theory Snow	*Activity 1:* Disease Detectives *Activity 3:* No Room for Rumors *Activity 4:* MedBay: 1cell, 2cells…
	3	Jenner Letter to Alpha	-----
Different kinds of questions suggest different kinds of scientific investigations	1	Koch's Concept	*Activity 3:* Microbe Meals
	2	Source of Contamination	*Activity 1:* Disease Detectives *Activity 2:* Water Everywhere
	3	-----	*Activity 1:* NCDC
Current scientific knowledge and understanding guide scientific investigations	1	Koch's Concept	*Activity 1:* Diary of A Disease
	2	Germ Theory Snow	*Activity 1:* Disease Detectives *Activity 3:* No Room for Rumors
	3	Jenner	-----
Technology used to gather data enhances accuracy and allows scientists to analyze and quantify results of investigations	2	Microscope w/ Beta	*Activity 1:* Disease Detectives *Activity 3:* No Room for Rumors
	3	Jeremy's apartment	-----

Standard B: *Physical Science*

Guides to the Standard	Mission	Online Activity	Correlated Classroom Activities
Heat energy can be transferred into or out of a system during a chemical reaction.	1	-----	*Activity 3:* Microbe Meals

Standard C: *Life Science*

Guides to the Standard	Mission	Online Activity	Correlated Classroom Activities
Living systems at all levels of organization demonstrate the complementary nature of structure and function.	1	Body Defenders Enemy Agents	*Activity 1:* Diary of A Disease *Activity 2:* Super Agent *Activity 3:* Microbe Meals
	2	Infectious Agents	*Activity 4:* MedBay: 1cell, 2cells …
	3	Virus Structure	-----
All organisms are composed of cells – the fundamental unit of life	1	Enemy Agents	*Activity 2:* Super Agent *Activity 3:* Microbe Meals
	2	Infectious Agents	*Activity 4:* MedBay 1cell, 2cells…
	3	-----	*Activity 2:* Gummy Germs
Specialized cells perform specialized functions in multicellular organisms	1	Body Defenders	*Activity 2:* Super Agent
	2	-----	*Activity 3:* No Room for Rumors
	3	-----	*Activity 2:* Gummy Germs *Activity 3:* The Body Fights Back
The human organism has systems for digestion, reproduction, respiration, circulation, excretion, movement, control and coordination, and for protection from disease, and these systems interact with each other.	1	Infect-O-Rama Body Defenders	-----
	2	ORS	-----
	3	-----	*Activity 3:* The Body Fights Back
Disease is a breakdown in structures or functions of an organism	1	Enemy Agents Infect – O- Rama Body Defenders	*Activity 1:* Diary of A Disease
	2	ORS	-----
	3	Jeremy's Apartment	*Activity 3:* The Body Fights Back
Reproduction is a characteristic of all living systems; reproduction is essential to the continuation of every species.	2	Infectious Agent	*Activity 4*: MedBay: 1cell, 2cells…
Regulation of an organism's internal environment and changing physiological activities to keep conditions within the range required to survive.	2	ORS	*Activity 2:* Water Everywhere
	3	-----	*Activity 3:* The Body Fights Back
Populations of organisms can be categorized by the function they serve in an ecosystem.	1	Enemy Agents	*Activity 3:* Microbe Meals

Standard E: *Science and Technology*

Guides to the Standard	Mission	Online Activity	Correlated Classroom Activities
Design a solution or product	1	-----	*Activity 2:* Super Agent
	2	-----	*Activity 1:* Disease Detectives
	3	-----	*Activity 3:* The Body Fights Back
Implement a Proposed Design	1	-----	*Activity 2:* Super Agent
	2	-----	*Activity 3:* No Room for Rumors
	3	-----	*Activity 1:* NCDC

Standard F: *Science in Personal and Social Perspectives*

Guides to the Standard	Mission	Online Activity	Correlated Classroom Activities
The potential for accidents and the existence of hazards imposes the need for injury prevention.	1	Infect-O- Rama Germ Blaster	-----
	2		*Activity 2:* Water Everywhere
Natural environments may contain substances that are harmful to human beings.	1	Infect-O- Rama	*Activity 1:* Diary of A Disease
	2	Cholera Description	*Activity 4:* MedBay: 1cell, 2cells…
When an area becomes overpopulated, the environment will become degraded due to the increased use of resources.	2	Areloch interview	*Activity 2:* Water Everywhere

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Risk analysis considers the type of hazard and estimates the number of people that might be exposed and the number likely to suffer consequences.	2	John Snow Epidemiology case studies; find the source of contamination	*Activity 1:* Diary of a Disease
	3	-----	*Activity 1:* NCDC
Science influences society through its knowledge and world view.	1	Koch's Concept	*Activity 3:* Microbe Meals
	2	Germ Theory John Snow Jenner	*Activity 4:* MedBay: 1cell, 2cells…
	3	-----	*Activity 1:* NCDC

Standard G: *History and Nature of Science*

Guides to the Standard	Mission	Online Activity	Correlated Classroom Activities
Women and men of various social and ethnic backgrounds – and diverse interests, talents, qualities, and motivations – engage in the activities of science, engineering, and related fields such as the health professions.	1	Koch's Concept	*Activity 1:* Diary of a Disease
	2	Sirius epi. Case Lab w/ Beta –bacteria John Snow	-----
	3	Jenner Lab w/ Beta –virus Dr. Xu's diagnosis	-----
Science requires different abilities, depending on such factors as the field of study and type of inquiry.	1	Koch's Concept	*Activity 3:* Microbe Meals
	2	Germ Theory Lab w/ Beta – bacteria Sirius Data Analysis John Snow	*Activity 1:* Disease Detectives *Activity 2:* Water Everywhere
	3	Jenner Dr. Xu's diagnosis Lab w/Beta – virus	-----
Scientists formulate and test their explanations of nature using observation, experiments, and theoretical methods.	1	Koch's Concept	*Activity 3:* Microbe Meals
	2	Germ Theory Infectious Agents Lab w/Beta – bacteria Patient cases John Snow Jenner	*Activity 2:* Water Everywhere *Activity 4:* MedBay: 1cell, 2cells…
	3	Jeremy's Apartment Lab w/Beta – virus	-----
It is part of scientific inquiry to evaluate the results of scientific investigations, experiments, observations, theoretical models, and the explanations proposed by other scientists.	1	Koch's Concept	*Activity 3:* Microbe Meals
	2	Germ Theory John Snow Dr. Xu's prognosis	*Activity 2:* Water Everywhere *Activity 3:* No Room for Rumors *Acitvity 4:* MedBay: 1cell, 2cells…
	3	Jenner	-----
Many individuals have contributed to the traditions of science.	1	Koch's Concept	*Activity 1:* Super Agent
	2	Germ Theory John Snow Jenner	*Activity 3:* No Room for Rumors
	3	-----	-----
In historical perspective, science has been practiced by different individuals in different cultures.	1	Koch's Concept	-----
	2	Germ Theory John Snow Jenner	*Activity 2:* Super Agent
	3	-----	*Activity 3:* No Room for Rumors
Tracing history of science can show how difficult it was for scientific innovators to break through the accepted ideas of their time to reach the conclusions that we currently take for granted.	1	Koch's Concept	Activity 2: Super Agent
	2	Germ Theory John Snow Jenner	Activity 3: No Room for Rumors