Michigan Curriculum Framework Alignment for AAL Classes

(I:2:1=strand, standard, benchmark)

	Elementary Science Benchmarks	Lesson
	Constructing New Scientific Knowledge (e) I:1	
I:1:1	Generate questions about the world based on observation.	1-15
I:1:2	Develop solutions to problems through reasoning, observation and investigations	1-15
I:1:3	Multiple simple devices that aid observation and data collection	1-15
I:1:4	Use simple measurement devices to make measurements in scientific investigations	1-15
I:1:5	Develop strategies and skills for information gathering and problem solving	1-15
I:1:6	Construct charts and graphs and prepare summaries of observation	1-15
	Reflecting on Scientific Knowledge ® II:1	
II:1:1	Develop an awareness of the need for evidence in making decisions scientifically	3,6,9,13
II:1:2	Show how science concepts can be illustrated through creative expression such as a language arts and fine arts	1-15
II:1:3	Describe ways in which technology is used in everyday life	1-15
	Motion of Objects (PMO) IV:3	
IV:3:1	Describe or compare motions of common objects in terms of Speed and direction	1-15
IV:3:2	Explain how forces (pushes or pulls) are needed to speed up, slow down, stop or change the direction of a moving object	1-15
IV:3:4	Identify and use simple machines and describe how they change effort	1-15
IV:3:5	Manipulate simple mechanical devices and explain how their parts work together	1-15
(Early/Later Elementary) English Language Arts(Meaning&Comm.) I:2		
I:2:1	Write with developing fluency for multiple purposes to produce a variety of texts, such as stories, journals, learning logs, directions and letters	1-11, 13-15
(Early/Later Elementary) English Language Arts(Meaning&Comm.)I:3		
I:3:4	Describe and use effective listening and speaking behaviors that enhance verbal communication and facilitate the construction of meaning. Examples include use of gestures and appropriate group behavior.	1-15

(Early/Later Elementary) Genre and Craft of Language 6:8

6:8:1	Identify and use mechanics that enhance and clarify understanding. Examples include using conventional punctuation, capitalization, and spelling, as well as approximations of conventional spelling, and restating key ideas in oral messages.	1-11, 13, 14 15

(Early/Later Elementary) Inquiry and Research 7:11

7:11:1	Generate questions about important issues that affect them or topics about which they are curious and use discussion to narrow questions for further exploration (research).	1-15
7:11:3	Organize and interpret information to draw conclusions based on the investigation of an issue or problem.	1-1-15

(Elementary) Mathematics

I.Patterns, Relationships and Functions

I:2:1	Recognize change and variability when it occurs in a variety of settings.	1-15
I:2:2	Recognize that change is often predictable, but variable and that patterns emerge that help to describe the change.	1-15

II. Geometry and Measurement

II:1:1	Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph.	3,6,9,13
II:1:2	Describe the attributes of familiar shapes.	1-15
II:1:3	Compare, sort and classify familiar shapes.	1-15
II:1:4	Draw and build familiar shapes.	1-15
II:1:5	Explore ways to combine, dissect and transform shapes.	1-15
II:1:6	Recognize parallel and perpendicular line segments and figures that have similarity and/or congruence.	1-15
II:1:7	Use shape, shape properties and shape relationships to describe the physical world and to solve problems.	1-15
II:2:1	Locate and describe objects in terms of their position, including front, back, inside, outside, right, left, over, under, next to and between.	1-15
II:2:2	Locate and describe objects in terms of their orientation, direction and relative position, including up, down, front, back, N-S-E-W, flipped, turned, translated; recognize symmetrical objects and identify their lines of symmetry.	1-15
II:2:3	Explore what happens to the size, shape and position of an object after sliding, flipping, turning, enlarging or reducing it.	2
II:2:5	Use concepts of position, direction and orientation to describe the physical world and to solve problems.	1-15
II:3:1	Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement	1-15

II:3:2	Identify the attribute to be measured and select the appropriate unit of measurement for length, mass (weight), area, perimeter, time, and money.	1-15
II:3:3	Develop strategies for estimating measures and compare the estimates to the results of the measurement: decide if an estimate is "a good estimate."	5,8,11,15
II:3:4	Explain the meaning of measurements and recognize that the number of units it takes to measure an object is related to the size of the unit.	1-15
II:3:5	Explore scale drawings, models and maps and relate them to measurements of real objects.	1-15
II:3:6	Apply measurement to describe the real world and to solve problems.	1-15

III Data Analysis and Statistics

III:3:1	Make and test hypotheses	1-15
III:3:2	Conduct surveys, samplings and experiments to solve problems and answer questions of interest to them.	1-15
III:3:3	Formulate and communicate arguments and conclusions based on data and evaluate their arguments and those of others.	10-14
III:3:4	Make and explain predictions based on data.	13,15
III:3:5	Make predictions to answer questions and solve problems.	13,15

Michigan Technology Content Standards

I:1	Compare/contrast the impact of technology in the home today and in the past.	1-15
I:5	Identify job opportunities and ways technology is related to these opportunities.	11
I:6	Demonstrate the proper care of technological systems and components.	1-15
II:1	Interpret, analyze and evaluate information with the assistance of technology.	3,6,9,13
II:3	Retrieve and communicate information using a technological system.	1-15
II:4	Evaluate information received through technologies.	1-15
III:1	Compare and contrast technological solutions to problems of today and the past.	1,2,3,4,6,7,8, 11,13,14,15
III:2	Use technology to communicate a solution for a variety of purposes.	1-15
III:3	Analyze problems and identify technologies and systems that that could solve them.	1-15
IV:3	Use measurements of dimension to construct technological	

	solutions to problems.	
IV:4	Transfer measurements for the purposes of marking and layout in producing technological solutions to problems.	1-15
IV:5	Analyze, select and use the appropriate tools for cutting, forming fastening and finishing materials to produce technological solutions to problems.	1-15
IV:6	Show/demonstrate the appropriate use of tools materials, equipment and processes in a safe manner to design a technological solution to a given problem.	1-15
IV:7	Demonstrate a basic systematic approach to design a technological solution to a given problem using a process folio.	1-15
IV:8	Design/redesign a quality technological prototype to meet a societal or environmental need.	3,6,9,11,13 14,15
IV:9	Demonstrate how the appropriate use of resources and processes affect the environment and societal needs to achieve a technological solution to a problem.	11
V:1	Explain the need for laws and regulations related to technologies.	11
V:2	Identify legal and ethical problems resulting from technological achievements.	11
V:4	Practice ethical and legal selection and use of technological resources.	11
VI:1	Demonstrate how people in different occupations and careers use technology to do their work.	1-15
VI:3	Show examples of how technology affects and impacts one's current life.	1-15
VI:4	Identify the advantages and disadvantages from the application of a technology to a civic, economic or societal problem.	11
VI:5	Classify and discuss the safe and unsafe factors of technological applications as they apply in the home, school, community, and/or the workplace.	11