## MA 2016 STE PreK-5 Earth & Space Science Strand Map (April 2016) Please direct comments, suggested edits, and questions to: mathesiencetechn@doe.mass.edu

The standards and strand maps are available at: www.doe.mass.edu/stem/review.html

(\*) denotes integration of technology/engineering through a practice or core idea. Grade 5 Kindergarten PreKindergarten (3-4 year old; MA EEC) Grade 4 Grade 1 Grade 2 Grade 3 Math: 1-MD.4 ELA: RI.PK.7, W.PK.2 ELA:W.4.9 Math: 1.MD.B.3, 1.MD.C.4 ELA: W.5.2, W.5.9 Math: PK.CC.C.MA.5, PK.G.A.MA.1 Math: 3.MD.B.3, 2.MD.D.10 K.MD.A.2, K.MD.B.3, K.CC.B.4a,b,c ELA: W.2.9 Math: 4.MD.A.1 ELA: RI.3.1, 2, 3.9 eK-PS1-2. Math: PK.MD.B.MA.3 ELA: W.K.1 ELA: RI.5.1,7,9, W.5.9 4-ESS3-2. Evaluate the different solutions to reduce the impacts of a natural even such as an earthquake, blizzard, or PreK-LS2-3 ELA: RI.K.3 flood, on humans.\* Clarification Statement: Examples of solutions could 5-ESS3-1. Obtain and combine information about ways communities reduce human impac on the Earth's resources and environment by 3-ESS3-1. Evaluate the merit of a design include a proposal for an earthquake esistant building or a constructed wetlan to mitigate flooding. solution that reduces the impacts of a weather-related hazard.\* Clarification changing an agricultural, industrial, or community practice or process. Clarification Statement: Examples of changed practices or processes include treating sewage, reducing the amounts of materials used, K-ESS3-2. Obtain and use information about weather-related hazard could include a barrier to prevent flooding, a wind-resistant roof, and a lightning rod. the purpose of weather forecasting to prepare for, and respond to, different types of local weather. PreK-ESS3-2(MA). Observe and discuss the impact of people's activities on the local reducing the amounts of materials used, capturing polluting emissions from factories or power plants, and preventing runoff from agricultural activities. State Assessment Boundary: Climate change or social science environment ELA: RI.4.9, W.4.9 Earth & Human PreK-ESS3-1(MA). Engage in discussion and ELA: SL.K.5, W.K.2 raise questions using examples about local resources (including soil and water) humans use to meet their needs. aspects of practices such as regulation or that energy and fuels humans use are derived from natural resources and that some energy the amount of natural resources an individual and fuel sources are renewable and some ar ELA: SL.PK.3, SL.PK.1 uses.\* Clarification Statement: Examples of solutions could include reusing paper to not. Clarification Statements: Examples of renewable energy resources could include wind energy, water behind dams, tides, and sunlight. Non-renewable energy resources are fossil fuels and nuclear materials. reduce the number of trees cut down and recycling cans and bottles to reduce the Massachusetts Department of amount of plastic or metal used. lementary and Secondary Education designed to filter an particulates out of water and propose one change to the design to April 2016 8.MS-ESS3-5