

Nuclear Astrophysics Content Expectations for Michigan

National Science Educational Standard: Science as Inquiry

P/(C)1.1 Scientific Inquiry

P/(C)1.1E Describe a reason for a given conclusion using evidence from an investigation.

P/(C)1.1i Distinguish between scientific explanations that are regarded as current scientific consensus and the emerging questions that active researchers investigate.

National Science Educational Standard: Science in Personal and Social Perspectives

P1.2 Scientific Reflection and Social Implications

P1.2A Critique whether or not specific questions can be answered through scientific investigations.

P1.2B Identify and critique arguments about personal or societal issues based on scientific evidence.

P1.2C Develop an understanding of a scientific concept by accessing information from multiple sources. Evaluate the scientific accuracy and significance of the information.

P1.2E Evaluate the future career and occupational prospects of science fields.

P1.2i Explain the progression of ideas and explanations that lead to science theories that are part of the current scientific consensus or core knowledge.

National Science Educational Standard: Physics

P4.1 Energy Transfer

P4.1A Account for and represent energy into and out of systems using energy transfer diagrams.

P4.12 Nuclear Reactions

P4.12A Describe peaceful technological applications of nuclear fission and radioactive decay.

P4.12C Explain how stars, including our Sun, produce huge amounts of energy (e.g., visible, infrared, ultraviolet light).

P4.12x Mass and Energy

P4.12d Identify the source of energy in fission and fusion nuclear reactions.