

20-21 District Wide High School Science Priority Level 3 Learning Targets-Earth Science

In response to the COVID-19 pandemic and changes to educational contexts, the following level 3 learning targets from the 20-21 Earth Science curriculum guide will need to become the primary priority for all sections of this course. **This is subject to change as new information becomes available.** Current as of 1/11/21 Expire on 6/30/21.

The below topics and learning targets are deemed of critical importance and should be the primary focus of teachers enhancements to the district provided virtual course, paced to be the majority of learner time and engagement, fully supported with descriptive learning centered feedback on formative and summative assessments, encouraging multiple opportunities to revise and demonstrate proficiency.

All other learning targets are to remain incorporated as provided in the district ready virtual course, but necessarily emphasized in the facilitation. **Prioritization should not be interpreted to mean elimination of secondary/non-prioritized topics or learning targets.** There may be circumstances in exception to this. Any topics and/or targets to be eliminated will clearly identified below as instructing to them in the COVID-19 context is an unacceptable risk and the topic/target is not required by the Iowa Core.

Emphasizing a priority target could include, but not limited to:

- **Adding** lessons, activities, engagements to the provided district ready virtual course modules
- Providing extended target/success criteria centered individualized or whole group feedback following assessments
- Communicating encouragement to revise or offer multiple opportunities to accomplish deeper learning toward the priority targets
- Composing and posting instructional themed and appropriately timed course announcements proactively or responsively toward improving growth to a priority target
- Planning agendas for live/synchronous meetings with mini lessons or discussion toward priority targets.
- Providing pace planning documents/ pages, checklist to be sure learners seek to accomplish a deep level of learning in the priority targets
- **Evaluating the Body of Evidence for grading/topic scores which recognizes the priority targets having been an emphasis during facilitation. Once adequate evidence is collected for the prioritized target(s) which is credible and defensible a topic score can be determined.**

Semester 1 SCI207

Topic 1: Age of the Earth

Priority- 3A. Use reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to account for Earth's formation and age.

Resource: ICC [HS-ESS1-6](#) Evidence statements to guide learner feedback and course customization.

Topic 2: History of the Earth

Priority-This topic is considered non-priority. Efficient facilitation of the district provided opportunities only is expected.

Topic 3: Origin of the Universe

Priority- 3A. Construct an explanation of the Big Bang theory using astronomical evidence of light spectra, motion of distant galaxies and the composition of matter in the universe.

Resource: ICC [HS-ESS1-2](#) Evidence statements to guide learner feedback and course customization.

Topic 4: Fusion of Stars

Priority- 3A. Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.

Resource: ICC [HS-ESS1-1](#) Evidence statements to guide learner feedback and course customization.

Topic 5: Orbital Motion

Priority- 3A. Use mathematical or computational representation (Kepler's and Newton's laws) to predict and explain the motion of orbiting objects in the solar system (HS-ESS1-4).

Resource: ICC [HS-ESS1-4](#) Evidence statements to guide learner feedback and course customization.

Semester 2 SCI208

Topic 1 Plate Tectonics

3A. Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks. [HS-ESS1-5](#)

Topic 2 Natural Resources

3C. Construct an explanation based on evidence for how changes in climate has influenced human activity. [HS-ESS3-1](#)

Topic 3 Carbon Cycle

3A. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere. [HS-ESS2-6](#)

Topic 4 Climate

3A. Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems. [HS-ESS2-2](#)

Topic 5 Climate Change

3A. Analyze global climate models to forecast global or regional climate change and future impacts to Earth systems. [HS-ESS3-5](#)