



**Montana**

**Office of Public Instruction**

# Assessing the Science Standards

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# Assessing the Science Standards

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## Presentation Overview

- 3-D Science Standards
- Learning Progressions
- College/Career Readiness (ACT)
- MSA Overview



# The Three Dimensions

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- Science Standards in 3D
  - Posters
- NGSS Topic Arrangement
- MT Model Curriculum Guide
- Comparison Document



# NGSS vs Montana Science Content Standards

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- Reading NGSS Foundation Blocks
- Overlapping Practices



# NGSS

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- Group Work:
  - Dissect Standards (3D)

Gradebands K-2, 3-5, MS, HS

# Unpacking the Standards

- Appendices
  - E: Disciplinary Core Ideas (DCI's)
  - F: Science and Engineering Practices (SEP's)
  - G: Crosscutting Concepts (CCC's)



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# MSA Tested Grades



## Earth Space Science Progression

### INCREASING SOPHISTICATION OF STUDENT THINKING

	K-2	3-5	6-8	9-12
ESS1.A The universe and its stars	Patterns of movement of the sun, moon, and stars as seen from Earth can be observed, described, and predicted.	Stars range greatly in size and distance from Earth and this can explain their relative brightness.	The solar system is part of the Milky Way, which is one of many billions of galaxies.	Light spectra from stars are used to determine their characteristics, processes, and lifecycles. Solar activity creates the elements through nuclear fusion. The development of technologies has provided the astronomical data that provide the empirical evidence for the Big Bang theory.
ESS1.B Earth and the solar system		The Earth's orbit and rotation, and the orbit of the moon around the Earth cause observable patterns.		



# College/Career Readiness

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## ACT Science Standards:

- Interpretation of Data
- Scientific Investigation
- Evaluation of Models, Inferences, and Experimental Results



# College/Career Readiness

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## Grade 11 ACT:

- minimize costs
- minimize testing time
- engage students
- standardize expectations for college- and career-readiness



# MSA Practice Tests

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Provides exposure:

- Online mode
- Interaction Types
- Standards Alignment
- <https://mt.portal.airast.org/>



# Wrap Up

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- Session Evaluation

# Questions?

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