# Science Standards Guidance

## Middle School Science

#### Options in Course Sequences

Science standards at the middle school level are grade banded and not grade specific. For this reason, districts are encouraged to exercise their local control and map the standards to grade levels where they see fit. At the middle school level much discussion has been had regarding an integrated vs. domain specific, the intent of this document

### Quick Links

- <u>Sixth Grade</u>
- <u>Seventh Grade</u>
- <u>Eighth Grade</u>

is to provide guidance considering themes and units that could scaffold in a meaningful way for both a balanced implementation and assessment system. The criteria for evaluating the suggested sequence included consideration of developmental milestones / rigor,

interconnectedness of concepts and teachers of rural districts who could be teaching all three grade levels consecutively. Evaluating this criteria meant that a consistency of domains in all three grade levels were considered and alignment was intentionally attempted when identifying times of year for concepts to be taught.

#### Sixth Grade

| ATOMS MOLECHIES & CHEMICAL DEACTIONS         | Non contact Forges and Figure |
|--|-------------------------------|
| Atoms, Molecules & Chemical Reactions        | Non-contact Forces and Fields |
| MS-PS1-1                                     | MS-PS2-3                      |
| MS-PS1-2                                     | MS-PS2-4                      |
| MS-PS1-5                                     | MS-PS2-5                      |
| Thermal Energy                               | MS-PS3-2                      |
| MS-PS1-3                                     | Scale, Gravity, Earth Sun and |
| MS-PS1-4                                     | Moon                          |
| MS-PS1-6                                     | MS-ESS1-1                     |
| MS-PS3-3                                     | MS-ESS1-2                     |
| MS-PS3-4                                     | MS-ESS1-3                     |
| MS-PS3-5                                     |                               |
| Impact of Resource Availability on Organisms |                               |
| MS-LS2-1                                     |                               |
| MS-LS2-2                                     |                               |

### Science Course Guidance

#### Seventh Grade

| Chemical Processes in Ecosystems & | Life's Essential Structures & Functions |
|------------------------------------|---|
| Organisms                          | MS-LS1-1                                |
| MS-LS1-6                           | MS-LS1-2                                |
| MS-LS1-7                           | MS-LS1-3                                |
| MS-LS2-3                           | MS-LS1-8                                |
| <u>Changes in Earth's Surfaces</u> | Growth & Reproduction of Organisms      |
| MS-ESS2-1                          | MS-LS3-1                                |
| MS-ESS2-2                          |   |
| MS-ESS3-2                          | MS-LS3-2                                |
| MS-ESS2-3                          | MS-LS1-5                                |
| MS-ESS2-4                          | MS-LS1-4                                |
| MS-ESS3-1                          |   |
| MS-ESS1-4                          |   |

### Science Course Guidance

#### **Eighth Grade**

| Force & Motion    | Human Impact on Ecosystems      |
|-------------------|---------------------------------|
| MS-PS2-1          | MS-ESS3-3                       |
|                   | MS-ESS3-4                       |
| MS-PS2-2          | MS-LS2-4                        |
| MS-PS3-1          | MS-LS2-5                        |
| Waves             | Change in Populations over Time |
| MS-PS4-1          | MS-LS4-4                        |
| MS-PS4-2          | MS-LS4-4<br>MS-LS4-5            |
| MS-PS4-3          |                                 |
| Weather & Climate | MS-LS4-6                        |
| MS-ESS2-5         | MS-LS4-1                        |
|                   | MS-LS4-2                        |
| MS-ESS2-6         | MS-LS4-3                        |
| MS-ESS3-5         |                                 |

For more information, contact:

Meg Richard STEM Education Program Manager (Science) Career Standards and Assessments (785) 296-8108 mrichard@ksde.org



Kansas State Department of Education 900 S.W. Jackson Street, Suite 102 Topeka, Kansas 66612-1212

(785) 296-3201

www.ksde.org

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 S.W. Jackson, Suite 102, Topeka, KS 66612, (785) 296-3201.

November 2023