

SOAR Scope and Sequence

The SOAR Scope and Sequence contains the learning targets, comprised of the standards, that students have to select from when planning and executing their projects. Students will be graded on a scale of: Advanced, Proficient, Basic, Minimal. Grades of Advanced, Proficient and Basic will complete a target. A grade of Minimal, will result either in editing the project for improvement or the target will need to be accomplished in another project. Please see **SOAR Assessment Rubric** link on the SOAR website for detailed descriptions of assessment requirements.

Students will meet the minimum amount of required targets per grade level. For categories that have multiple grade levels, students have those years to complete the minimum. For example, a SOAR fifth grader has four years to complete the minimum standards for “Social Studies” and one year to complete the minimum for “Writing: Grade 5”.

SOAR’s learning targets are based on the Wisconsin Department of Education Standards for grades 5-8. The following are the categories of targets:

- Social Studies (History and Geography):** Grades 5-8
- Advisory & Seminar (Political and Behavioral Science, Economics):** Grades 5-8
- Science (Physical, Earth, and Life Science):** Grades 5-8
- Physical Education:** Grade 5-8
- English Language Arts (Foundational Skills, Research and Literature):** Grade 5
- English Language Arts (Research, Oration, Literature):** Grades 6-8
- Writing:** Grade 5
- Writing:** Grade 6
- Writing:** Grade 7
- Writing:** Grade 8

The following example is the SOAR Scope and Sequence for Physical Science. Seven targets are required to complete the Physical Science Category. The three targets highlighted in yellow are specifically required for every student. Students will choose four other targets for their projects to complete this category. The required number of targets is a **minimum** that students will be encouraged to surpass.

If you have further questions about the SOAR Scope and Sequence please contact a SOAR Advisor.

This link (<http://dpi.wi.gov/standards>) to see the Wisconsin Department of Public Instruction's webpage on standards.

IMPORTANT Students must prove they have met the standard with a **A, P, or B** for completion
Numbers and Letters in Parentheses- example: Change in Matter (D.8.1) These are the corresponding WI DPI Standards related to the topics.

Highlighted Targets- Required Targets

Non Highlighted Targets- Students choice targets to accomplish the required number of targets per category

| Science | | | | | | |
|---|---|--|---|--|---------|------|
| Physical Science: Seven Targets Required (Yellow Are Must Do's) | | | | | | |
| Level of Achievement | | Targets | | | Project | Date |
| | | Changes in Matter (D.8.1) | | | | |
| M | B | P | A | Solid, Liquid, Gas | | |
| M | B | P | A | Density, melting points, boiling points of a substance | | |
| M | B | P | A | Kinetic theory of matter | | |
| M | B | P | A | Particle behavior in four states of matter | | |
| | | Chemical Interactions (D.8.3, D.8.4, D.8.7) | | | | |
| M | B | P | A | Chemical Reactions: Combustion, Synthesis, Decomposition, Single Displacement, Double Displacement, Acid-Based | | |
| M | B | P | A | Chemical Interactions leading to new substances with different properties | | |
| M | B | P | A | Law of conservation of mass | | |
| | | Energy Resources (D.8.9) | | | | |
| M | B | P | A | Model forms of energy transmission: heat, electricity, transportation | | |
| | | Atomic and Molecular Structure (D.8.2, D.8.10) | | | | |
| M | B | P | A | Parts and arrangement of atoms | | |
| M | B | P | A | Atomic mass, atomic number, isotopes | | |
| M | B | P | A | Chemical formula | | |
| M | B | P | A | Chemical bonds and bonding | | |
| | | Motion (D.8.5, D.8.6, G.8.4) | | | | |
| M | B | P | A | Acceleration, speed, velocity, inertia, force, friction, gravity, momentum, distance and displacement | | |
| M | B | P | A | Newton's Laws of Motion | | |
| | | Elements, Their Properties, and Periodic Table(D.8.01) | | | | |
| M | B | P | A | Understand and interpret the Periodic Table | | |
| M | B | P | A | Properties of and identification elements | | |
| | | Electricity (D.8.8) | | | | |

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|---|---|--|---|---|--|--|
| M | B | P | A | Electromagnets | | |
| M | B | P | A | Static electricity | | |
| M | B | P | A | Conductor, insulator, voltage, resistance, current, kilowatt-hour | | |
| M | B | P | A | Series and parallel circuits, breakers and fuses | | |
| | | Magnetism (D.8.6) | | | | |
| M | B | P | A | Properties of temporary and permanent magnets | | |
| M | B | P | A | Magnetic domain, magnetic pole | | |
| M | B | P | A | Force of a magnet | | |
| | | Waves, Light & Sound (D.8.8) | | | | |
| M | B | P | A | Mechanical, transverse, compressional waves | | |
| M | B | P | A | Relationship between wavelength and frequency; amplitude and energy | | |
| M | B | P | A | Reflection and refraction of light | | |
| M | B | P | A | Color | | |
| M | B | P | A | Amplitude, intensity, frequency, pitch, Doppler effect | | |
| M | B | P | A | Sonar, ultrasound | | |
| M | B | P | A | How the ear works | | |
| | | Scientific Method (A.8.1, A.8.7, B.8.3, C.8.1-11, G.8.7) (EE A.8.1-6) | | | | |
| M | B | P | A | Purpose, Research, Hypothesis, Experiment, Analysis, Conclusion | | |
| | | (This should be used in conjunction with another standard in Physical Science) | | | | |

M=Minimal Achievement of Standard B=Basic Achievement of Standard
P=Proficient Achievement of Standard A=Advanced Achievement of Standard