MINNESOTA
PROFESSIONAL EDUCATOR
LICENSING AND STANDARDS BOARD

MEMORANDUM

To: Professional Educator Licensing and Standards Board

From: Yelena Bailey, Executive Director

Date: May 15, 2026

Subject: Science Licensure Work Group – Action

Background

In April 2025, the Board approved work to discuss how science licensure will address licensure scopes and how to expand up/down in grade levels. A PELSB-facilitated Science Teacher Licensure working group ("working group"), composed of a broad range of science teachers, administrators, and teacher preparation providers, met and deliberated from November 2025 until April 2026. The working group determined the issues to be discussed in-depth and presented an overview of each issue, current statutes and rules, options for addressing each issue (with a discussion of pros and cons), and recommendations. The full report is in your materials at (LINK NEEDED).

In December 2025, the Board approved a guiding philosophy for streamlining licensure. For science licensure, the Board included a recommendation for fewer licenses and a simplified scope (e.g., 5-12 licenses) but that it is open to the recommendations of the working group. Additionally, the Board recommended changes to current policy to help science teachers gain a general license.

Work Group Recommendations

The work group presented their recommendations at the April 2026 board meeting. Many members of the group recommend making no changes, while others recommend combining secondary licenses.

Additional Information

At the April meeting, board members asked for additional data on OFPs, as well as information on how MDE's academic standards align with PELSB licensure. PELSB staff put together the following information to help inform the Boad's discussion.

Science OFP Data

The data below shows which teachers with OFPs held a science license in a different field, which do not hold a license, and which hold a license in an appropriate field but the wrong scope.

2025-2026 Science Out-of-Field Permissions (OFP)

Overview:

- There was a total of 473 unduplicated headcount of teachers who received an OFP for a science licensure.
- Of those, 364 teachers held at least one non-expired science license.
- This means that 77% of science OFPs were given to teachers holding a science license.
- Fourteen of those teachers received the full license for the science content of their OFP during the school year while they were working under the OFP.

Category	Life Science	Chemistry	Physics	Earth and Space Science	Science 5-8
Number of teachers with an OFP	59	80	53	196	180
Number of teachers with an OFP who hold a non-expired science license	33	66	44	183	99
• ***1 science license***	*20*	*29*	*10*	*94*	*69*
• ***2 science licenses***	*12*	*26*	*21*	*73*	*25*
• ***3 science licenses***	*0*	*11*	*11*	*15*	*5*
• ***4 science licenses***	*1*	*0*	*2*	*1*	*0*
Number of teachers with an OFP who do not hold any science license	26	14	8	13	81
Number of teachers with an OFP who do not have a license with the appropriate scope	3	2	2	12	99
Percent of OFPs given to licensed science teachers	56%	83%	83%	93%	55%

2024-2025 Science Out-of-Field Permissions (OFP)

Overview:

- There was a total of 480 unduplicated headcount of teachers who received an OFP for a science licensure.
- Of those, 357 teachers held at least one non-expired science license.
- This means that 74% of science OFPs were given to teachers holding a science license.
- 27 of those teachers received the full license for the science content of their OFP during the school year while they were working under the OFP.
- 22 science teachers received the full license for the science content of their OFP after the school year ended.
- Four teachers who did not hold any science license received the full license for the science content of their OFP after the school year ended.

Category	Life Science	Chemistry	Physics	Earth and Space Science	Science 5-8
Number of teachers with an OFP	59	91	50	209	185
Number of teachers with an OFP who hold a non-expired science license	33	78	41	187	93
• ***1 science license***	17	41	10	99	66
• ***2 science licenses***	15	29	19	70	22
• ***3 science licenses***	1	8	12	17	5
• ***4 science licenses***	0	0	0	1	0
Number of teachers with an OFP who do not hold any science license	26	13	9	22	92
Number of teachers with an OFP who do not have a license with the appropriate scope	4	5	0	13	92
Percent of OFPs given to licensed science teachers	56%	86%	82%	89%	50%

Percentage of science assignments filled by OFPs, tier 1 licenses, and tier 2 licenses

This data helps us understand how many kids are being served by teachers without adequate training.

2025-2026 Teacher Shortage Data

Science License	Percent of Assignments Filled by Tier 1, Tier 2, or Permission	FTE Tier 1, Tier 2, Permissions	FTE Tier 3, Tier 4	Total FTE
Life Science	11%	77.67	634.51	712.18
Chemistry	12%	54.41	391.96	446.37
Physics	12%	26.76	190.71	217.47
Earth and Space Science	39%	89.59	141.73	231.32
Science 5-8	13%	159.56	1075.65	1235.21

2024-2025 Teacher Shortage Data

Science License	Percent of Assignments Filled by Tier 1, Tier 2, or Permission	FTE Tier 1, Tier 2, Permissions	FTE Tier 3, Tier 4	Total FTE
Life Science	10%	71.89	656.97	728.86
Chemistry	13%	55.03	380.02	435.05
Physics	12%	24.39	182.4	206.79
Earth and Space Science	41%	82.15	117.92	200.07
Science 5-8	13%	166.26	1086.69	1252.95

District guidance on science teaching assignments that may need to be formalized through rulemaking

Currently there are three science assignments that provide exceptions to licensure compliance guidance.[1] These exceptions are unlikely to be accounted for in normal reporting of licenses and permissions held. These exceptions appear to have originated back when the 5-9 Science license was made a legacy license, and the 5-8 Science license began to be offered. It was likely intended to help districts transition to the new grade configuration for this middle school science license.

The relevant subpart reads:

> Subp. 2a. Exception for candidates with partial science teaching qualification. The board shall issue a license valid for teaching chemistry, earth and space science, life science, or physics in grades 9 through 12 for candidates who complete the requirements of subpart 2, items A and B; and subpart 4; 5; 6; or 7, but have not completed subpart 3. The board shall issue a license to teach all sciences in grades 5 through 8 to a candidate who has completed the requirements of subparts 2, items A and B, and 3 but has not completed subpart 4, 5, 6, or 7. Licenses issued to teach all sciences in grades 5 through 8 under this exception or as a science specialty under part 8710.3200 are not valid for teaching *integrated science* offerings above grade 9.[2]

The highlighted passage has historically been interpreted to mean that MDE's licensing division, now PELSB, is obligated to grant the exception to teach the grade 9 Integrated Science assignment. Further, even though not explicitly named Physical Science was also interpreted as 'integrated.' As a result, two additional assignments, Physical Science (Physics) and Physical Science (Chemistry) have also been granted exceptions to teach grade 9 students with the 5-8 Science license. A manual override has been applied for any violations generated in a district's Staff Automated Report (STAR) submission.

Integrated Science

There are three (3) versions of the Integrated Science, assignment code 130100, exception:

1. **Multiple High School Licenses**. A person holding two or more 7-12 or 9-12 science licenses is deemed to be compliant with licensure requirements. A manual override is applied in STAR.
2. **Middle School + High School Licenses.** A person holding a middle school science and a high school license receives a manual override. The logic being that the middle school license accounted for the 'integrated' content courses. It was thought the dual middle school and high school licenses collectively accounted for methodological (i.e. pedagogical) training covering the totality of the grade scope.

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[1] Minnesota Statutes 2025, section 122A.04 Pursuant to section 120A.22, subdivision 10, a teacher must hold a field license or a permission *aligned to the content area and scope of the teacher's assignment* to provide instruction in a public school, including a charter school.

[2] MINN. R. 8710.4750 (2025)

3. **5-8 Science License**. A person holding a valid 5-8 Science license or Out of Field Permission (OFP) is allowed the exception.

Physical Science (Physics) and Physical Science (Chemistry)

At one time Minnesota had a 7-12 Physical Sciences (Physics and Chemistry) license. That license became a legacy license when these content areas were split into separate 9-12 Chemistry and 9-12 Physics licenses.

The historic interpretation that Physical Sciences is 'integrated' therefore falling under the Subpart 2a exception is seemingly contradicted by the fact that a person holding only a 9-12 Physics license is allowed to teach grades 10-12 Physical Science (Physics). A person holding only a 9-12 Chemistry license is allowed to teach grades 10-12 Physical Science (Chemistry). Considering that only a single license, either Chemistry or Physics, is required to teach a Physical Science assignment to grades 10-12, then it follows that districts have the remedy of securing an Out-of-Field Permission (OFP) if needed to teach grade 9.

Implications for Grade 9 Exceptions

- Rule language does not include expiration dates. There is no incentive for people holding only a 5-8 Science license to seek additional licensure broadening their licensure grade scope.
- People holding a Tier 1 5-8 Science license could teach multiple assignments to grade 9 students and still technically be compliant with licensure requirements even though this is outside the grade scope of the license.
- People holding a Tier 2 5-8 Science license could also teach multiple assignments to grade 9 students. Theoretically, a person could hold a Tier 2 in a non-science field and an OFP for 5-8 Science. This could conceivably allow someone to teach assignments outside both the content area and grade scope of their teacher preparation enrollment, and possibly jeopardizing their ability to complete field experience hours or their student teaching practicum.
- A person with a related service license could be granted a discretionary variance and an OFP for 5-8 Science and subsequently be teaching grade 9 students full-time.

Overview of MDE standards (3 strands) matched against current and proposed licenses

Academic Strand	Description	Current License(s)	Possible License(s)
Physical Sciences (Physics and Chemistry)	PS 1: Matter and its interactions PS 2: Motion and stability: Forces and interactions PS 3: Energy PS 4: Waves and their applications in technologies for information transfer	Physics Chemistry	Physical Sciences
Life Sciences	LS 1: From molecules to organisms: Structures and processes LS 2: Ecosystems: Interactions, energy, and dynamics LS 3: Heredity: Inheritance and variation of traits LS 4: Biological Evolution: Unity and diversity	Biology	Biology
Earth and Space Sciences	ESS 1: Earth's place in the universe ESS 2: Earth's systems ESS 3: Earth and human activity	Earth and Space Science Science 5-8	Physical Sciences Biology

Options

1. Recommend the creation of one 5-12 science license.
2. Recommend the creation of a 5-12 Physical Science License and a 5-12 Biological Science License, as well as allowing legacy licenses to teacher 5-8 science.

3. Table for further discussion.
4. Recommend no changes to licensure structure.