OREGON DEPARTMENT OF EDUCATION
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RESEARCH BRIEF

Office of Research, Assessment, Data, Accountability, and Reporting

FAST FACTS: Opportunity to Learn – Science by Grade and Student Group

Definition: Students' Science learning experiences.

ODE calculates an **Opportunity to Learn – Science** domain score among 5th, 8th, and 11th graders that has a possible range of 0 to 100. This score is based off students' responses to 14 to 18 items on the SEED Survey (on a 4-point scale with response options being: Never; Rarely; Sometimes; Often). Example items[1] are:

5th Grade Example Items	8th Grade Example Items	11th Grade Example Items
Think about what you did in your science class this year. How often did you do the following? • Make a drawing that explains why or how something happens. • Use a science experiment to answer a question. • Use evidence to explain why something happens.	Think about what you did in your science class this year. How often did you do the following? • Make drawings that explain why or how something happens. • Use tables or graphs to identify relationships between variables. • Use factual information to disagree with someone about a scientific idea.	Think about what you did in your high school science classes. How often did you do the following? • Come up with questions to explore how something works. • Use math equations to explain or support scientific conclusions. • Combine factual information about science from multiple sources (for example, books, websites, or articles) for an assignment.

1% of students had a score of 100, meaning they felt they had frequent exposure to all the learning opportunities

1% of students had a score of 0, meaning they felt they did not have exposure to any of these learning opportunities

[1] The full list of items can be found in Understanding SEED Domain Scores.

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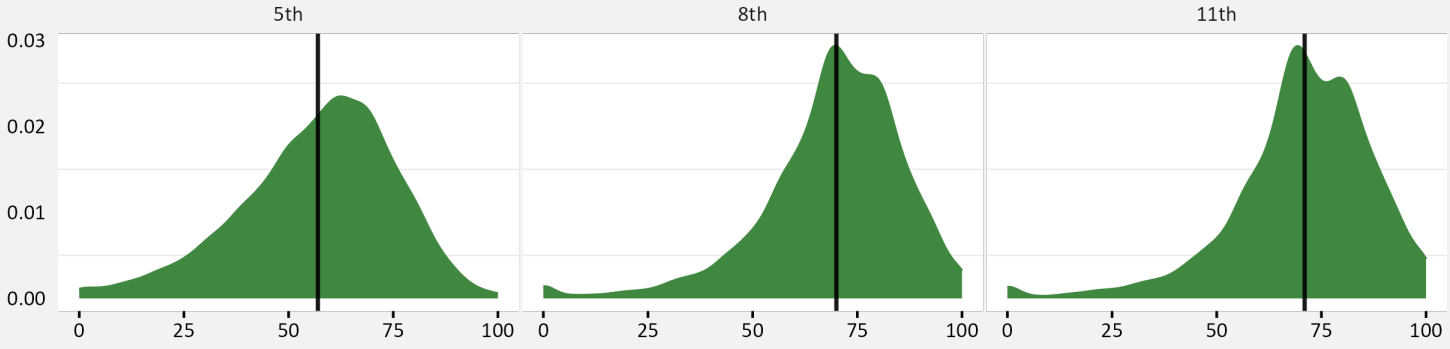
Opportunity to Learn – Science increased from 5th to 8th grade, and slightly increased from 8th to 11th grade.

Figure 1: Distribution of Student Domain Scores



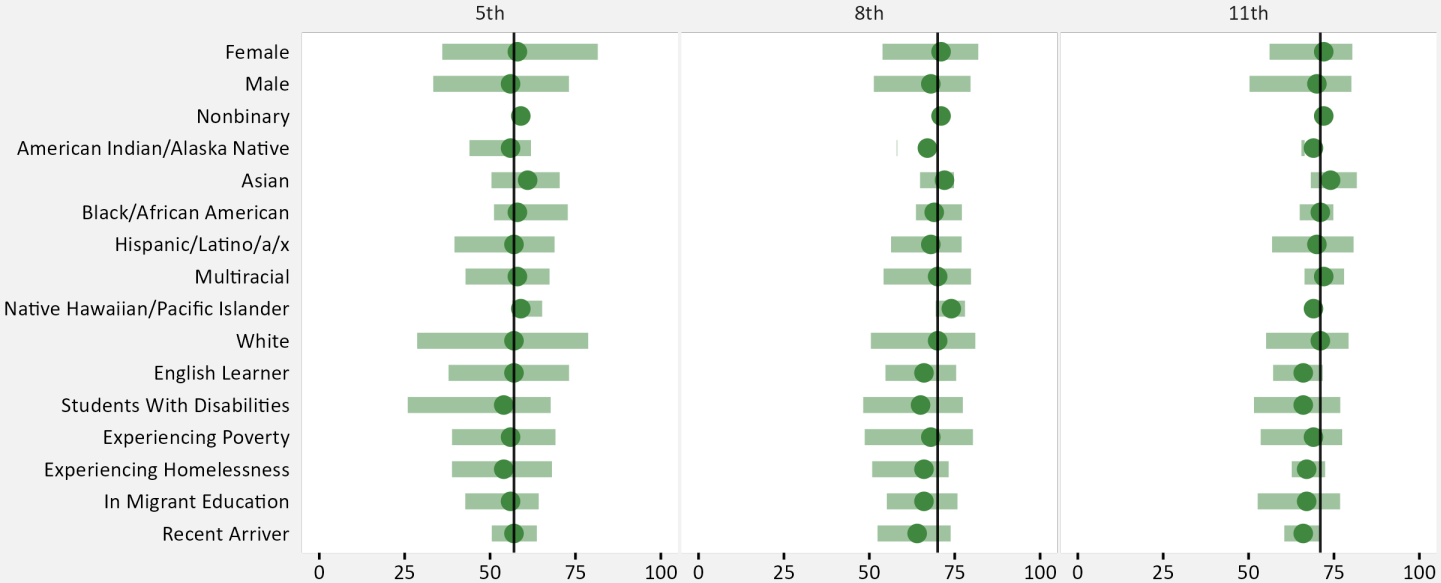
Note.The vertical black line indicates the state-level score for all students combined

Grade	State Domain Score	Equivalency
5th	57	Roughly equivalent to responding 'Rarely' to 4 items and 'Sometimes' to 10 items
8th	70	Roughly equivalent to responding 'Sometimes' to 16 items and 'Often' to 2 items
11th	71	Roughly equivalent to responding 'Sometimes' to 16 items and 'Often' to 2 items

Some student groups had lower domain scores across all three grades:

- Male students
- American Indian/Alaska Native students
- Students with disabilities
- Students experiencing poverty
- Students experiencing homelessness
- Students in migrant education

Figure 2: Domain Score by Student Group



Note. The dark green circle indicates the state-level score for each group, and the light green box indicates the score range across districts in Oregon with at least 10 responses. The vertical black line indicates the state-level score for all students combined.

Resources

SEED Survey

- SEED Survey
- Understanding SEED Domain Scores
- 2024-2025 State Level SEED Survey Domain Score Data
- 2024-2025 District Level SEED Survey Domain Score Data

Additional Resources

- Student Success Plans
- K-12 Science Education Best Practice Guide
- Integrating TSEL in K-12 Science Education
- Science Resources webpage
- Tribal History/Shared History: Science resources
- Oregon's Science Standards
- Oregon Science Educator Update
- Oregon STEM Hubs
- STEAM Toolkit