



NORTH CAROLINA
State Board of Education
Department of Public Instruction

Report to the North Carolina General Assembly

Plasma Games Competitive Grant Program

[SL 2021-25, sec. 3.5\(a\)\(25\)](#) and [SL 2023-134, sec. 7.69\(a\)](#)

Date Due: May 15, 2025
DPI Chronological Schedule, 2024-2025

STATE BOARD OF EDUCATION

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JOINT LEGISLATIVE EDUCATION OVERSIGHT COMMITTEE REPORT REQUIREMENTS

The purpose of the Plasma Games Competitive Grant Program is to promote access to innovative digital and personalized learning solutions for high school students that bridge the gap between chemistry and physical science classes and career and technical education (CTE) career pathways. Public School Units (PSUs) participating in the program are to incorporate the software program developed by Plasma Games, Inc., in science, science, technology, engineering, and math (STEM) classes and CTE programs, to encourage student interest and workforce development. A PSU participating in the program shall provide the Department with a plan for the placement of the STEM-focused educational technology developed by Plasma Games, Inc., in its schools and may include a plan from the pilot program established pursuant to Section 7.69(a) of Session Law 2023-134.

A qualifying school is eligible as follows:

- Any public school unit is eligible to apply to the Department of Public Instruction for a grant to develop or continue a program with Plasma Games.

FUNDING:

Session law 2021-180 provided \$2,500,000 to establish the Plasma Games Pilot. Funding for the Plasma Games Grant Program was extended in Session Law 2023-134 with an additional \$3,000,000.00 in FY24 and \$1,800,000.00 for FY25.

Grant applicants were informed that funds were to be used for the following purposes:

1. Plasma Games' licensing fees and related operating costs
2. Professional development and training for teachers related to the use of Plasma Games' software
3. Implementation costs of the pilot

The applicant's proposed budget must align with program activities, be reasonable and necessary, and provide a breakdown of costs by category. The district, charter, or lab must verify that no supplanting occurs. Requested funds were to be submitted by category in the 'Proposed Budget' section of the CCIP application. Applicants were directed to be mindful of their capacity to spend all requested funds within the time period defined by the grant. All funding disbursements and reporting are managed in the CCIP system.

TIMELINE

The fiscal year 2024-2025 Plasma Games Program Request for Proposal and Guidance document was distributed to all eligible PSUs on July 31, 2024, with a deadline of September 16, 2024. To align with Session Law 2024-1, the window for PSUs to apply was extended until February 1, 2025. On February 6, 2025, the State Board of Education approved submitted applications, and funds were released shortly thereafter.

REPORTING REQUIREMENTS

Per SL 2023-134, the Department shall report the following information to the Joint Legislative Education Oversight Committee no later than May 15th of each year that funds are made available for the program:

- The number of public school units that submitted grant applications.
- The number of grants awarded.
- The average size of grants awarded.
- The average daily membership of each public school unit that received grant awards.
- The ratio of grant funds received by each public school unit to the average daily membership of the public school unit.
- The total number of licenses in active use in the State.

S.L. 2023-134 also provided for the Department to include other relevant information. The Request for Proposal and Guidance document outlined additional reporting requirements, including:

- The target grade levels.
- Specific grades and courses where Plasma Games will be utilized
- Number of students that will be using the program in each semester or year-long course
- Number of teachers utilizing the program
- Number of teachers who have completed professional development offered by Plasma Games
- Student outcomes related to the goals of the PSU's grant application

NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION (NCDPI) IMPLEMENTATION

This report is based on the most current activity and processes for the Plasma Games Competitive Grant Program related to S.L. 2021-180 and S.L. 2023-134.

BACKGROUND

Prior to Session Law 2021-180, the North Carolina Department of Commerce Office of Science, Technology & Innovation (OSTI) facilitated a Plasma Games Pilot Program during the 2020-2021 school year.

In October 2022, Session Law 2021-180 established the Plasma Games Pilot Competitive Grant program to support access to innovative digital and personalized learning solutions for high school students that bridge the gap between chemistry and physical science classes and career and technical education (CTE) career pathways. Legislation specified Plasma Games' use in select high school courses in CTE and STEM related courses and provided for a total of \$2,500,000. An allotment policy was approved by the North Carolina State Board of Education on February 3, 2022.

Funding for the Plasma Games Grant Program was extended in Session Law 2023-134, with an additional \$3,000,000.00 in non-recurring funds from ARPA Temporary Savings in FY24 and \$1,800,000.00 in recurring funds from state funds for FY25.

- Funding made available for FY25 included the State allotted \$1,800,000.00 plus \$1621,586.00 in funds remaining from FY24 not requested during the previous application window for a total of \$3,421,586.00 in available funds.

The FY25 grant application opened in the Comprehensive Continuous Improvement Plan (CCIP) portal on August 5, 2025, through the CCIP system. It was open to all North Carolina Public School Units that met the qualifications outlined in the legislation. The SBE approved awards on February 6, 2025, and funds were distributed to districts immediately thereafter.

Both Session Law 2021-180 and Session Law 2023-134 specify that the funds are for Public School Units (PSU) to contract with Plasma Games. Therefore, the resulting contracts are agreed to individually by each PSU and Plasma Games. PSUs are expected to meet the program goals as listed in their grant applications.

REQUIRED GRANT REPORTING OUTCOMES

Applications and interest

Reporting on Plasma Games piloting and implementation began with the [Fiscal Year 2021 Report on the Implementation, Expenditures, Outcomes and Recommendations for the Plasma Games Pilot Program](#) presented to the Joint Legislative Education Oversight Committee in June 2021.

In 2023, NCDPI instituted an annual survey collecting quantitative and qualitative data to gather updates on the grant's status, expenditures, number of staff who have received training, number of students who have accessed the program, and progress toward meeting its stated goals.

Table 1 shows PSU participation in the Plasma Games grant program since the original Dept. of Commerce Pilot through the FY25 award cycle.

- Between FY21 and FY25, 53 different PSUs have applied for and received Plasma Games funding.
- 2 PSUs remain of the original 20 PSUs that participated in the Dept. of Commerce Pilot:
 - 1 PSU has participated each fiscal year
 - 1 PSU sought funding for Plasma Games in FY24 and FY25
- 26 PSUs have applied only once, with 17 PSUs applying two or more times
- 18 out of 29 PSUs that participated in FY24 declined to seek funding for FY25
- 10 PSUs applied as first time applicants in FY25

Table 1

PSU Name	Dept. Of Commerce Pilot Participants	Session Law 2021-180 FY22/23 Participants	Session Law 2023-134 FY24 Participants	Session Law 2023-134 FY25 Participants
Public Schools of Robeson County	X	X	X	X
Haywood County Schools	X	X	X	Did not re-apply
Rockingham County Schools	X	Did not apply	X	X
Cabarrus County Schools	X	Did not apply	X	Did not re-apply
Swain County Schools	<i>(Applied but did not receive funding)</i>	-	X	Did not re-apply
Beaufort County Schools	-	X	X	X

Columbus County Schools	-	X	X	X
Dare County Schools	-	X	X	X
Elizabeth City Pasquotank	-	X	X	Did not re-apply
Franklin County Schools	-	X	X	Did not re-apply
Tyrrell County Schools	-	X	X	Did not re-apply
Burke County Schools	-	X	Did not re-apply	Did not re-apply
Edgecombe County Schools	-	X	Did not re-apply	Did not re-apply
Gaston County Schools	-	X	Did not re-apply	Did not re-apply
Harnett County Schools	-	X	Did not re-apply	Did not re-apply
Henderson Collegiate	-	X	Did not re-apply	Did not re-apply
Hyde County Schools	-	X	Did not re-apply	Did not re-apply
Pitt County Schools	-	X	Did not re-apply	Did not re-apply
Sampson County Schools	-	X	Did not re-apply	Did not re-apply
Scotland County Schools	-	X	Did not re-apply	Did not re-apply
Surry County Schools	-	X	Did not re-apply	Did not re-apply
Wake County Schools	-	X	Did not re-apply	Did not re-apply
Watauga County Schools	-	X	Did not re-apply	Did not re-apply
Wilson County Schools	-	X	Did not re-apply	Did not re-apply
Yadkin County Schools	-	X	Did not re-apply	Did not re-apply
CIS Academy	-	-	X	X
Clinton City Schools	-	-	X	X
Iredell-Statesville Schools	-	-	X	X
Martin County Schools	-	-	X	X
Maureen Joy Charter	-	-	X	X
Weldon City Schools	-	-	X	X
Buncombe County Schools	-	-	X	Did not re-apply
Chatham County Schools	-	-	X	Did not re-apply
Lake Lure Classical Academy	-	-	X	Did not re-apply
Lenoir County Public Schools	-	-	X	Did not re-apply
North Carolina Cyber Academy	-	-	X	Did not re-apply
Orange County Schools	-	-	X	Did not re-apply

Pinnacle Classical Academy	-	-	X	Did not re-apply
Shining Rock Classical Academy	-	-	X	Did not re-apply

Implementation

Previous reports to the Joint Legislative Education Oversight Committee in May 2023 and May 2024 noted the following:

- Between FY22 and FY24, \$5,500,000.00 was allotted for the Plasma Games grant program. Of these funds, \$3,167,314 was requested and funded, leaving \$2,332,686.00 unutilized.
- Initial contracts between PSUs and Plasma Games during these years were based on an individual student license basis.
 - For the 2023 calendar year, PSUs reported 9,142 students had or were using Plasma Games software. This represented 30.6% of the total 29,825 licenses purchased.
 - As of January 2024, \$1.252 million has been paid to Plasma Games for student licenses not utilized
 - In the Spring of 2024, PSUs reported an estimated 22,183 students utilizing Plasma Games software.
 - PSUs previously awarded Plasma Games grants who applied for FY25 funding were asked if all student licenses purchased using FY22 or FY24 funds had been utilized. All FY25 awardees reported that all purchased licenses had been used.

FY24 Reported Data

Table 2 shares data gathered from participating PSUs awarded PRC 258 grant funds during the FY24 cycle. The data was collected from PSU between February - March 2025.

- 23 of 29 PSUs responded to the grant survey.
- These figures were based on first semester use from August 2024 - January 2025.
- As of March 14, 2025, PSUs who responded indicated that 64% of students anticipated to participate in the grant have used Plasma Games.
 - Based on grant applications, overall participation from the FY24 cohort could range from as low as 58% to no higher than 67% of students anticipated to use Plasma Games.
- When factoring the number of students who were reported to have used Plasma Games by the amount awarded in FY24, the per-student cost of Plasma Games was \$114.56
 - As of May 2025, the FY24 cohort per-student cost could be no lower than \$99.17, based on the total number of anticipated students listed in the grant applications.
- PSUs reported expecting to increase actual student use through the end of the 2024-2025 school year.
- 20 PSUs have shifted to district or site licenses and no longer use per-student licenses.
 - 16 of 23 responding PSUs reported using all of their purchased licenses or meeting expected usage.
- PSUs implemented Plasma Games in a variety of settings, including:
 - Elementary - Reading, Science, STEM periods
 - Middle School - 6th, 7th, and 8th grade science, STEM classes, and in one case, Earth/Environmental Science
 - High School - Predominantly in Physical Science and Chemistry, with some also offering in Biology, Physics, and through CTE courses.

Table 2

Grade Span	# of Schools	# of Students PSUs anticipated to use Plasma	# of Students who used Plasma	Percent of anticipated students who used Plasma	# of Teachers trained to use Plasma	# of Teachers using Plasma
K-5	9	445	383	86.07%	14	14
6-8	72	9,635	6,790	70.47%	97	112
9-12	88	8,798	4,859	55.23%	94	131
	169	18,878	12,032	63.74%	205	257

FY24 Grant Highlights and Challenges

When asked to provide an overview of the successes or highlights of grant implementation, PSUs reported:

- The game-based format appears to have increased student engagement based on teacher feedback
- Professional development has supported teachers in using the program, and it is not difficult for teachers to learn.

In terms of challenges, PSUs reported:

- Inconsistent use among staff and students
- Weather closures and delays impacted implementation, and continued challenges with changes in staffing impacted when and how many students were using the platform.
- Difficulty in determining the impact on student outcomes
- Some PSUs shared concerns about finding the best placement of Plasma Games to ensure its alignment with course standards.

SUMMARY OF DATA OBTAINED RELATED TO S.L. 2023-134 FOR FY25

Table 3 lists the amounts requested and awarded to each participating PSU, along with calculations related to the Average Daily Membership (ADM) for the PSU as a whole and the cost per student based on the number of students the PSU intends to serve with the grant funding. The data for each PSU's ADM came from the department's report on the 2024-2025 Month 2 ADM data, which is [posted on the NCDPI website](#).

Table 3

PSU	ADM	No. of students anticipated to utilize Plasma	Funding requested for licenses	Funding requested for implementation and professional development	Total Award Amount	Cost Per Student if all students participate
Anson County Schools	2,888	1,005	\$53,460.00	\$2,673.00	\$56,133.00	\$55.85
Beaufort County Schools	5,460	1,900	\$115,200.00	\$5,760.00	\$120,960.00	\$63.66
Brunswick County Schools	13,475	13,413	\$253,080.00	\$12,654.00	\$265,734.00	\$19.81

Camden County Schools	1,911	651	\$48,000.00	\$2,400.00	\$50,400.00	\$77.42
Cherokee County Schools	2,924	900	\$56,280.00	\$2,814.00	\$59,094.00	\$65.66
CIS Academy	113	113	\$48,000.00	\$2,400.00	\$50,400.00	\$446.02
Clinton City Schools	2,887	370	\$45,600.00	\$2,400.00	\$48,000.00	\$129.73
Columbus County	5,201	1,614	\$96,480.00	\$0.00	\$96,480.00	\$59.78
Currituck County Schools	4,518	1,212	\$79,620.00	\$3,981.00	\$83,601.00	\$68.98
Dare County Schools	4,771	1,429	\$85,740.00	\$4,287.00	\$90,027.00	\$63.00
Iredell-Statesville Schools	20,696	16,912	\$388,980.00	\$19,449.00	\$408,429.00	\$24.15
Martin County Schools	2,547	1,341	\$45,600.00	\$2,400.00	\$48,000.00	\$35.79
Maureen Joy Charter	629	220	\$48,000.00	\$2,400.00	\$50,400.00	\$229.09
Metrolina Regional Scholars Academy	397	196	\$48,000.00	\$2,400.00	\$50,400.00	\$257.14
Movement Freedom Charter	629	100	\$25,000.00	\$23,000.00	\$48,000.00	\$480.00
Pioneer Springs Community Schools	555	308	\$18,480.00	\$19,520.00	\$38,000.00	\$123.38
Public Schools of Robeson County	20,340	5,900	\$354,000.00	\$0.00	\$354,000.00	\$60.00
Rockingham County Schools	10,849	3,639	\$265,680.00	\$13,284.00	\$278,964.00	\$76.66
Southeastern Academy	218	218	\$60,000.00	\$26,000.00	\$86,000.00	\$394.50
Tillery Charter Academy	233	93	\$8,000.00	\$2,000.00	\$10,000.00	\$107.53
Weldon City Schools	633	195	\$45,600.00	\$2,400.00	\$48,000.00	\$246.15
Total	101,874	51,729	\$2,188,800.00	\$152,222.00	\$2,341,022.00	\$45.26
Average					\$111,477.24	
Median					\$56,133.00	

FINAL NOTES

Feedback obtained from Plasma Games grant participants for the FY24 cycle is similar to that received previously.

- Teacher participation and interest vary from school to school. Those teachers who regularly participate report an observed increase in student engagement, but actual participation rates fall far below the number of students PSUs anticipate participating when applying for grant funding.
 - The use of purchased licenses has improved but is still 30-40% below anticipated use.
- Teachers have reported to their PSU leadership an appreciation of the STEM-related resources provided in the teacher portal.
- PSUs are unable to directly connect student participation in Plasma Games to specific academic outcomes.

- PSUs report relying on emailed feedback from Plasma Games stating how their student performance matches other districts in NC.
 - In one case a PSU was told that Plasma was unable to pull data from the previous year on student participation and performance, yet another PSU was given data. The only difference was the first PSU did not continue its use of Plasma.
- PSUs report positive qualitative data related to student engagement and interest in STEM careers, but are unable to report specific quantitative data related to those points.

This report was presented to the State Board of Education on April 2, 2025, for discussion and on May 1, 2025, for approval. The State Board approved the report with the recommendation to the General Assembly to discontinue future funding for Plasma Games in favor of other programs with records of positively impacting students, such as the Competitive After-School Robotics Program, and support for low-performing districts.