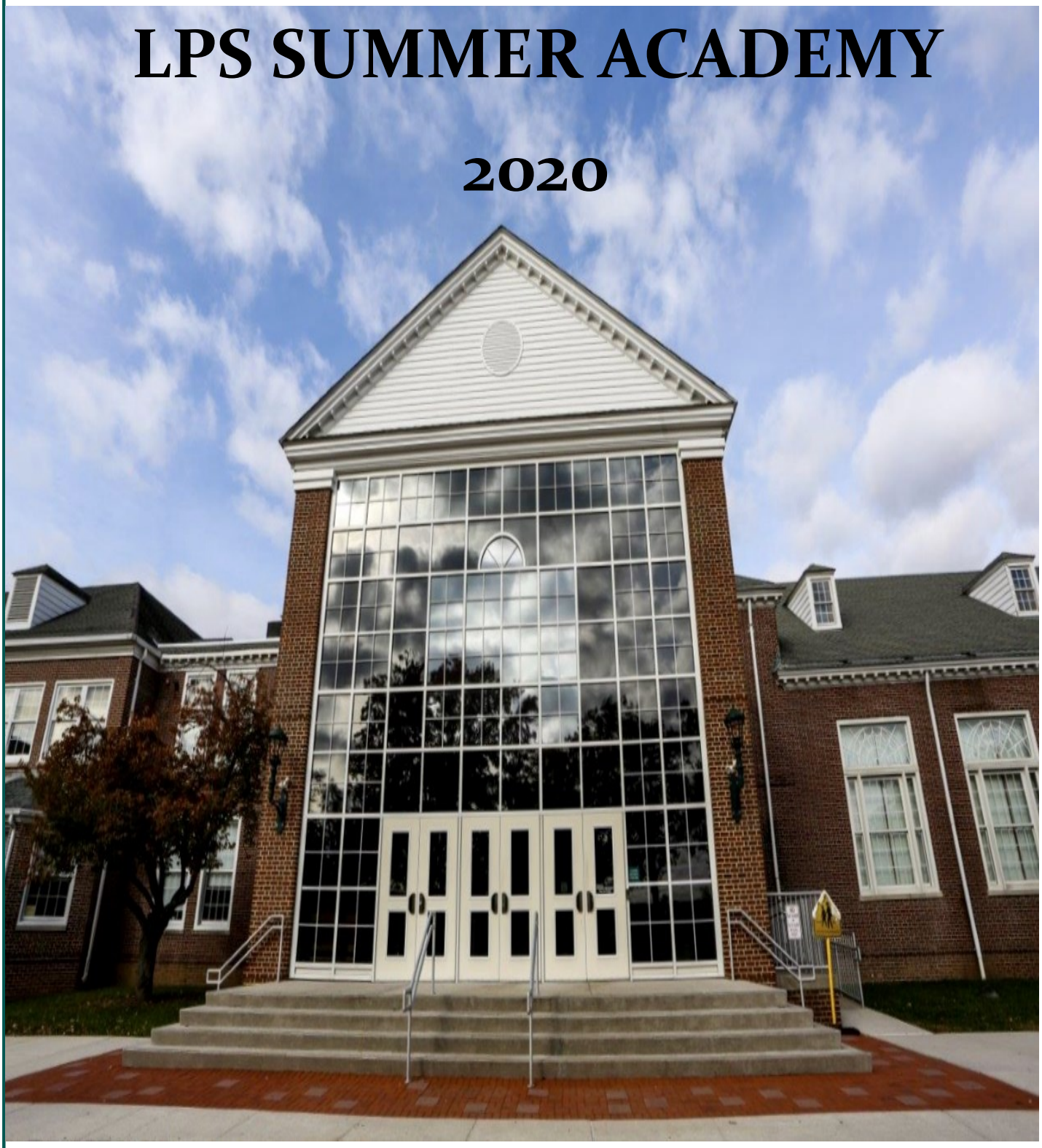
LPS SUMMER ACADEMY

2020



Livingston PUBLIC SCHOOLS

** Learn * Create * Contribute * Grow*

Livingston Public Schools is committed to providing students with excellent educational experiences. For some students, additional time on-task, under the guidance of certified teachers, permits them the time and attention to achieve their potential.

Five options exist for students looking for an additional academic challenge this summer: Remedial Courses, Summer Bridge Courses, Enrichment Courses, Science Courses and new this summer, the online Personal Financial Literacy Course.

Remedial Courses follow the same curriculum as is taught during the academic year. Bridge, Enrichment & Science Courses content is described in this brochure. In addition, you will also find information about program dates, times, registration, and tuition.

Please note that courses will run contingent upon sufficient enrollment. Should you register for a course that is later cancelled due to insufficient enrollment, your tuition will be refunded. Refunds will not be provided if students are absent.

Remedial Courses

Summer school remedial courses are intended for students who have taken, but not earned, sufficient credit while taking the class during the academic year. As such, they consist of 60 hours of instruction per class over the course of 5 weeks. Up to two student absences are permitted per class. Students absent from a class for more than two days during the summer school session will not receive credit for participating in summer school. Refunds will not be provided as a result of student absences.

High School

- Algebra I
- Algebra II
- Geometry
- Biology
- Chemistry
- Modern World History
- US History I & II
- English I, II, III

Middle School

- Math (Gr. 6)
- Pre-Algebra (Gr. 7-8)
- Integrated Science (Gr. 6-8)
- Social Studies (Gr. 6-8)
- English (Gr. 6-8)

High school students taking remedial classes in Algebra I, Algebra II, Geometry, English I, II, may need to sit for NJSLA testing at the conclusion of this course. Teachers will communicate with students about the requirements. Testing dates are planned for August 3 & 4, 2020.

Bridge Courses

Bridge courses are intended for students who would benefit from a preview of the coursework they will encounter in the coming school year. Over the course of the 4-day program, key concepts from the initial units of study will be presented so that students are able to familiarize themselves with the topics they will see once the course begins. In addition, teachers will review effective study methods, secrets to success in AP/Honors level coursework, and provide guidance as to how best to cope with a demanding course load. While some topics covered in these courses may help students as they complete their summer assignments for the respective classes, the summer assignment itself will not be completed as part of these bridge courses.

These classes are particularly recommended for students who:

- are taking their first Advanced Placement (AP) or Honors class
- were in a College Prep (CP) level course the previous year and are transitioning to an AP or Honors level class this year.

Courses Offered

- Biology Honors Bridge
- Biology AP Bridge
- Chemistry Honors Bridge
- Chemistry AP Bridge
- Geometry Honors Bridge
- Algebra II Honors Bridge
- Pre-Calculus Honors Bridge
- Calculus (AB) AP Bridge
- Pre-Algebra Concepts & Skills (Middle School Level)

Pre-Algebra Concepts and Skills (Middle School Level)

This bridge course will be useful to any student entering Pre-Algebra 7 or Pre-Algebra 8. This course will review arithmetic and algebraic skills needed for success in Pre-Algebra 7 or Pre-Algebra 8. Problem solving and test-taking strategies will also be emphasized during each lesson. Topics include the Number System, Equations, Ratios and Proportions, Percent, Geometry, and Data Analysis and Probability. Taking this course does not prepare or enable students to skip Pre-Algebra and take Algebra 1. This course is strictly meant to prepare students for Pre-Algebra 7 and Pre-Algebra 8. Placement in Algebra 1 is determined by a thorough recommendation process that encompasses several data components, including marking period grades, placement test scores, teacher recommendation, and standardized test scores.

Biology Honors Bridge Course

This bridge course will be useful to any student entering Biology Honors. This course will review basic lab skills and science and engineering practices as well as providing a refresher on topics covered in 7th grade Life Science (Cell Structure & Function, Genetics, Evolution, and Ecology) and 8th grade Physical Science (Basic Chemistry).

Biology AP Bridge Course

Any student registered for Biology AP could benefit from this bridge course. Students will receive AP -level instruction on the following topics in order to provide them a foundation with which to successfully start the school year: Basic Chemistry and Biochemistry, Connections of Biochemistry to Human Body Systems, Molecular Genetics, and Evolution. Additionally, students will be engaged in investigations that would help solidify their lab skills and conclusion-writing abilities.

Chemistry Honors Bridge Course

Any student registered for Chemistry Honors could benefit from this bridge course. This course will review basic lab skills, science and engineering practices, and algebraic manipulations appropriate for Chemistry Honors. In addition, a refresher of atomic structure, physical and chemical changes and properties, basic principles of bonding, arrangement of the periodic table, and the Law of Conservation of Matter (balancing chemical equations) will be offered as time permits.

Chemistry AP Bridge Course

Any student registered for Chemistry AP could benefit from this bridge course. Students will receive Honors-level instruction on the following topics in order to provide them a foundation with which to successfully start the school year: Formula and Equation Writing, Stoichiometry, Bonding and Intermolecular Forces, Equilibrium, and Thermodynamics. Additionally, students will be engaged in investigations that would help solidify their lab skills and conclusion-writing abilities.

Geometry Honors Bridge Course

This bridge course will be useful to any student entering Geometry Honors. This course will review algebraic skills, such as solving and graphing linear and quadratic equations, simplifying radicals, and solving systems of equations. Geometry concepts taught in Pre-Algebra 7 and Pre-Algebra 8 will also be reviewed. Additionally, students will be engaged in investigations and activities that will help expose them to the kind of high-level thinking expected in an honors mathematics course.

Algebra II Honors Bridge Course

Any student registered for Algebra II Honors could benefit from this course. Students will receive Honors-level instruction on the following topics to provide them the foundation with which to successfully start the school year: writing equations of lines, linear functions, solving and applying linear and quadratic equations, absolute value equations and functions, laws of exponents, and simplifying radicals. The importance of proper mathematical notation will also be emphasized. Additionally, students will be engaged in investigations and activities that will help to expose them to the kind of high-level thinking expected in an honors mathematics course.

Pre-Calculus Honors Bridge Course

Any student registered for Pre-calculus Honors could benefit from this course. Students will receive Honors-level instruction on the following topics to provide them the foundation with which to successfully start the school year: the different types of functions studied in Algebra II, with an emphasis on piece-wise functions and rational functions. Additionally, students will be engaged in investigations and activities that will help to expose them to the kind of high-level thinking expected in an honors mathematics course.

Calculus (AB) AP Bridge Course

Any student registered for Calculus (AB) AP could benefit from this bridge course. Students will receive instruction on the following topics at the AP-level to provide them the foundation with which to successfully start the school year: polynomial functions and their graphs, rational functions and their graphs, limits, average and instantaneous rate of change problems, the unit circle, radian measure, trigonometric functions and their graphs, and trigonometric identities. Additionally, students will be engaged in investigations and activities that will help to expose them to the kind of high-level thinking expected in an advanced placement mathematics course.

Enrichment Courses

These courses have been designed in order to provide students with a taste of content they have wondered about. Over the course of 8 days/24 hours, the instructor and students will spend some time getting acquainted with the content area and identifying areas students may wish to pursue further, either in classes or extracurricular activities.

High School Enrichment Classes

Art - Foundations in the Elements & Principles

This art enrichment is for students with an interest in art who are seeking to have a greater understanding of the Elements of Art and Principles of Design. Students will be exposed to different tools, techniques and materials and will create exciting and challenging artwork around these concepts. Through the exploration of different art forms, students will gain an increased confidence in their artistic abilities.

College Essay Writing (One Week Course)

This course will provide students with an opportunity to identify topics for and start the writing process for their college application essays. Utilizing a writing workshop style, students will come with ideas for their essays and personal statements, receive feedback from their instructor and have time to revise outlines and drafts of their work under the guidance of a teacher. This course will serve as a catalyst for students working on these documents and set young people on a course for successfully completing them prior to the start of the school year.

DIP (Design, Innovation, Problem-Solving) into Engineering

Students will develop design thinking skills that unite a variety of educational goals and content area understandings. In this summer program, students will utilize anchor texts to engage and contextualize real world problems, and develop habits of mind, practical skills, and practices of science and engineering to develop solutions to problems with local and global implications utilizing the engineering design process.

Students will engage in a variety of hands on experiences, demonstrations, and mini labs while they take on the role of a variety of scientific and engineering professionals. Through diverse experiences, interaction with peers, ongoing inquiry and critical self-evaluation, students will spend the week working toward their ultimate goal of creating, testing, evaluating and presenting their problem solutions to their peers.

Math Enrichment/English Enrichment (Up to 8 days)

This class is geared toward LHS students who have been registered for Math or English Enrichment classes in their September 2020 schedule. It targets Grades 10 & 11 students who have not yet met their graduation requirements and will permit them time to work on either the ASVAB or Accuplacer assessments in order to make progress towards meeting the expectations for high school graduation.

Middle School Enrichment Classes

Art Enrichment (Drawing/Painting/Sculpture/Ceramics) (Gr. 6-8)

This art enrichment course will incorporate the use of the Elements of Art and Principles of Design with the application of a variety of techniques and media. Self-expression and skill development will be focused on as students explore various art forms, such as drawing, painting, sculpture and ceramics.

Computer Coding for Beginners/Intermediate (Gr. 6-8)
This course introduces core computer science and programming concepts and will help students grasp the basic fundamentals of computer coding by introducing programming language and may include block coding and/or Java formats. Students will gain a deeper appreciation for technology, strengthen problem solving skills and create projects using several different coding apps to help them understand computer science and computational thinking.

DIP into Engineering (Design, Innovation, Problem-Solving) (Gr. 6-8) (8 day program)
Students will develop design-thinking skills that unite a variety of educational goals and content area understandings. In this summer program, students will utilize anchor texts to engage and contextualize real-world problems, and develop habits of mind, practical skills, and practices of science and engineering to develop solutions to problems with local and global implications utilizing the engineering design process.

Students will engage in a variety of hands-on experiences, demonstrations, and mini labs while they take on the role of a variety of scientific and engineering professionals. Through diverse experiences, interaction with peers, ongoing inquiry and critical self-evaluation, students will spend the week working toward their ultimate goal of creating, testing, evaluating and presenting their problem solutions to their peers.

Elementary School Enrichment Classes

Brain Camp! (Entering Grade 1, Grade 2 or Grade 3 in September)
July 6-23 ***Being Held at Burnet Hill Elementary School***
8:30 a.m. –10:30 a.m.
Our youngest students will have an opportunity to continue building early literacy and numeracy skills through fun, engaging learning activities including games, technology, and hands-on experiences. This class will reinforce skills learned in kindergarten while building readiness for Grade 1, Grade 2, or Grade 3. Our goal is to “play with a purpose.”

Art Enrichment (Drawing/Painting/Sculpture/Ceramics) (Gr. 3-5)
This art enrichment course will provide students with the opportunity to broaden and enrich their experiences in the Visual Arts, and provide students with skills that will build on their current levels of artistic achievement. Students will better understand the elements and principles that govern the creation of artwork, and will have the opportunity to create works of art in a variety of media, such as drawing, painting, sculpture and ceramics.

Computer Coding for Beginners (Gr. 3-5)
A brief introduction to the concepts and commands of basic computer programming. Students will learn sequencing, problem solving and critical thinking as they take on various coding challenges and simulations. Students will use skills learned to create small project-based learning activities that will allow them to explore their creative coding abilities.

DIP into Engineering (Design, Innovation, Problem-Solving) (Gr. 3-5)
Students will develop design thinking skills that unite a variety of educational goals and content area understandings. In this summer program, students will utilize anchor texts to engage and contextualize real-world problems, and develop habits of mind, practical skills, and practices of science and engineering to develop solutions to problems with local and global implications utilizing the engineering design process.

Students will engage in a variety of hands-on experiences, demonstrations, and mini labs while they take on the role of a variety of scientific and engineering professionals. Through diverse experiences, interaction with peers, ongoing inquiry and critical self-evaluation, students will spend the week working toward their ultimate goal of creating, testing, evaluating and presenting their problem solutions to their peers.

Science Programs

These research courses aim to help students develop their research skills under the guidance of LPS faculty. The *Science and Engineering Practices* will be central to each course. They include asking questions and defining problems; developing and using models; planning and carrying out investigations; analyzing and interpreting data; using mathematical and computational thinking; constructing explanations and designing solutions; engaging in argument from evidence; and obtaining, evaluating and communicating information.

Lancer Quest

Target Audience: Incoming 7th, 8th, and 9th (Livingston students only)

Dates: July 20 - July 30 (Monday through Thursday)

Time: 8:00 am – 11:00 am

Cost: $300

Location: Livingston High School

Description: This STEM-based research program is open to incoming 7th, 8th, and 9th graders and will provide students with a fun, engaging way to design authentic investigations, collect data, analyze results, and communicate findings through a hands-on, collaborative research experience. Students will develop research topics by asking questions and posing solutions to community-based issues, using cutting-edge technologies to enhance the inquiry experience. Parents and friends are invited to join participants on the final day from 11:00am to 12:00 pm as students share their experiences and present their research. Join us as we embark on an unforgettable journey of scientific discovery!

STEM Research Experience 1

Target Audience: Current sophomores and juniors (Livingston students only)

Dates: June 29 - July 30

Classes are held Monday - Thursday

Time: 9:00 am - 1:00 pm

Cost: $750 (5 credit option available – see below)

Location: Livingston High School

Description: This five-week elective will provide students with the opportunity to conduct an authentic research project. Students interested in this elective will need to develop a research proposal by **May 26, 2020**. Students should submit an electronic copy of their research proposal to Mr. Carey at bcarey@livingston.org by the due date and schedule a meeting with the instructor(s) to discuss the proposal and any supplies needed by **June 1**. Instructor permission is required to conduct research project prior to the start of the course.

The research proposal will include the following sections:

- Rationale for research project (including no less than three citations)
- Procedure
- Supplies needed
- Data to be collected and analyzed

Students interested in the for-credit option will need to meet the required 120-hour minimum to receive five credits. To accomplish this, students are required to keep a log of hours spent developing their proposals, which should take roughly 15 hours to develop.

Students will continue to keep a log of their research time in the lab, which should account for an additional eighty hours. Finally, once the research is complete, students will compile their work into either a presentation or paper, which will be presented to science department faculty. This compilation would account for the remaining twenty-five hours.

Acceleration Course: **Online Personal Financial Literacy**
Target Audience: Rising Juniors and Seniors
Dates: June 29 - August 20, 2020
Time: Flexible Schedule, Student work submitted online
Cost: $300
Location: Online coursework, final exam must be taken onsite at LHS on August 20, 2020.

Description: This online course provides students with an opportunity to complete coursework from any location on their own schedule. This course was developed to be an independent educational environment where learning and assessment is completed in an online platform. The course includes elements of student choice over time, place, or pace in their learning. This option will cover the same material as the traditional Personal Financial Literacy course.

This course focuses on the five separate strands of personal finance which include income and careers; money management, credit and debt management, planning, saving, and investing; becoming critical consumers; citizen financial responsibility; and risk management and insurance. This course is designed to assist students in recognizing their financial responsibilities today and those they will encounter in the future. Topics include developing knowledge of banking, credit, stocks, bonds, mutual funds, and real estate. Real-life, real-time assignments and investment challenges are examples of projects designed for this course.

Registration for this class involves participation in the high school's Individualized Student Learning Opportunity (ISLO). These forms can be found in the "LPS Summer Academy" section of our school website. Be aware that the deadlines for registration differ from those for the LPS summer academy.

This course fulfills the NJ graduation requirement for Personal Financial Literacy.

Program Specifics

Remedial Programs - June 29 - July 30, 2020

Weeks 1 – 5: Classes are held Monday - Thursday

Session 1: 8:00 a.m. - 11:00 a.m. Session 2: 11:30 a.m. - 2:30 p.m.

Cost: $300 In-district students/$350 Out-of-district students

August 3 & 4 NJSLA Assessment (ELA I, II or Alg. I, Geometry, Alg. II)

Bridge Programs - August 17 - August 20, 2020

Classes are held Monday -Thursday

8:00 a.m. - 11:00 a.m.

Cost: $300 In-district students/$350 Out-of-district students

Enrichment Programs - July 6 - 16, 2020

Classes are held Monday -Thursday

8:00 a.m. - 11:00 a.m.

Cost: $300 In-district students/$350 Out-of-district students

*****College Essay July 13-16 $150.00***

Brain Camp - July 6 - 23, 2020

(Held at Burnet Hill Elementary)

Classes are held Monday -Thursday

8:30 a.m. - 10:30 a.m.

Cost: $300 In-district students

Science Programs — Open to LPS Students Only

Classes are held Monday - Thursday

Lancer Quest (M.S.)

- July 20 - 30
- 8:00 a.m. - 11:00 a.m.
- Cost: $300/Student

STEM Research Exp. I (H.S.)

- June 29 - July 30
- 9:00 a.m. - 1:00 p.m.
- Cost: $750/Student

Online Personal Financial Literacy (Individual Student Learning Opportunity)

June 29 - August 20, 2020 (flexible schedule)

August 20, 2020 Final Exam

Cost: $300.00 In-district students

Please note that courses will run contingent upon sufficient enrollment. Should you register for a course that is later cancelled due insufficient enrollment, your tuition will be refunded.

All classes will be held at Livingston High School, 30 Robert Harp Drive, Livingston, NJ 07039 with the exception of Brain Camp which is held at Burnet Hill Elementary School, 25 Byron Place, Livingston, NJ 07039.

Registration: www.livingston.org/summeracademy

Questions? Email Us: summeracademy@livingston.org

Payment:

Payment can be submitted via cash or check made out to: *Livingston Public Schools* and submitted to 11 Foxcroft Drive, Livingston, NJ 07039, Attn: LPS Summer Academy.