Physics can get messy! Learn about gravity with a tomato tower, electromagnetic waves by using a microwave to make a marshmallow monstrosity, elasticity with a shoebox catapult. Eye popping science experiments!! <u>MELON LAUNCHER</u> Build and test a rubber band powered cata- pult that launches marshmallow "melons". After launch, critique changes to improve the launcher's aim and distance it so it can't hurt a projectile. The real challenge is to build the launcher. Kinetic energy creates discussions of the design process. A real team effort! AN ALKA-SELTZER ROCKET	documents/test data. Email	Do not need to re-submit eligibility	PLEASE NOTE: Returning Laureates	Have you attended previous Summer Laureate Sessions?	Reading Music Art	Check your favorite subjects in school (number your choices in order of preference	*Signature of Nominator	Name of Test	Latest group or individual intelligence test:	Enrolled in a gifted/talented program?	Home Address	Parent(s) Name	Vame of School
What a great idea! Better have a target in mind. Lots of science and engineering con- nections with this activity. Try using seltzer water, soda or hot water and compare the				e Sessions?		er your cho				YesNo			
height or distance or your Alka-Seltzer rock- et. Some challenging inquiry results.					Oth	ices in		Da					
SOLAR DESIGNERS Harness the unlimited energy of the sun to power a solar car! An alternative fuel. The July sun should give great operational pow- er. Save electricity, go old school, and cook on a solar oven. Toast up s'mores, nachos, and other small treats. You can make one!! Ingenious Laureates!! (Lab Fee \$15)				Yes No If so, when?	Other, What?	order of preference)	Position/Title	Date Given		Achievement Test Scores	City	Phone#	School System
PRIVATE EYE SCHOOL Complete this session designed for great detectives before moving on to tackle mys- teries such as "The Vandal Strikes" and "The Great Electric Train Robbery". Along the way, you will think outside the box, organize data, take notes, make inferences, and uses deductive reasoning skills. Enroll in this ses- sion!	Total Fee	Application Fee				ScienceMi		_Score (s)			State Zip		
CALLING ALL ENGINEERS Here comes the sun! Learn Mechanical transmission with this solar rover. Would you believe his name is CAPTAIN ROAM-E-O who has a planetary gear transmission system and adjustable robotic arms? He is all- terrain solar vehicle that is activated by the solar panel when placed under a direct sun-			OFFICE USE ONLY			Math							

## Laureate Mechanics

- Only a limited number of students can be accepted into and accommodated in the Summer Laureate
- The Laureate will be held from 8:30 am to 3:00 pm daily.
- Students who are selected for Laureate will be sent further details. On opening day, an orientation meeting with class schedules will be held on campus for parents and students.
- All Laureate participants and their parents automatically grant permission for use of student activities, such as picture taking, movies, video or audio taping. Permission is also granted for planned field trips. It will be necessary to have medical forms on file and your own medical insurance.
- Transportation to and from the campus will be provided by the parent.
- Lunch and snacks will be served in the Kennedy Union. A non-refundable application fee is necessary. (If student is not accepted, application fee will be refunded.) The remaining balance of \$200 must be paid by
- Make checks payable to:

Student Name

PLEASE USE THIS FORM FOR EACH NOMINATION

DOB

Grade

2 Level

September

2019

(PLEASE PRINT LEGIBLY.)

Lelia C. Boyd, Ph.D. **Director - Summer Laureate 538 Hopper Hill Farms Road** Cincinnati, Ohio 45255

- Fees are non-refundable for cancellations after June 1.
- The deadline for nominations is April 20.
- After deadline, please call for possible openings, (513) 753-9143.
- Notification of applicants who are selected is May 4, 2018. Phone: (513) 753-9143.
  - Lelia C. Boyd, Ph.D. 538 Hopper Hill Farms I Cincinnati, Ohio 45255 Road

# The Summer Laureate



Wisdom lies not in knowledge - which quickly becomes outdated - but in perpetually seeking it. ~ Socrates

2019

University of Dayton Kennedy Union

# PLEASE RETURN THIS PORTION OF THE BROCHURE

(Lab Fee-\$15)

#### SMASH IT! CRASH IT! LAUNCH IT! Physics can g

beam. A lovable little chap!

# At the University of Dayton, Kennedy Union

## Laureate 2019 - A Perspective

## Welcome Summer!

Saíl away from the safe harbor. Catch the trade winds with your sails. Explore. Dream. Discover. ~ Mark Twain

### The Summer Laureate -

A unique summer program...

- ...where high academic achievers in grades three through eight have the opportunity to expand their knowledge within a university setting. ...where dedication to the pursuit of learning are reflected in the staff, students and program offerings.
- ...where there exists a challenging education plan that blends academic, cultural, social and recreational components into a rich and natural environment
- ...where a staff is selected for their high level of preparation in their disciplines, outstanding teaching abilities and enthusiasm for working with bright students.

# **To Our Students**

Midday activities bring the "Laureate Family" together for guest speakers, discussion topics and cultural presentations. The cost for the one-week program is \$300. This includes all activities, instructional materials (except assigned lab fees), recreation, noon meal and snacks, plus the Sundae Social on Friday afternoon. Details will be given at orientation on June 24.

## Selection

Laureate is designed specifically for high academic achievers who meet the following criteria:

- Enrolled in a gifted/talented program in their respective school.

OR

Superior achievement in an academic program
Student entering third through eighth grade in
September 2019

Final selection is dependent upon the Laureate screening after all data is considered. Those who are selected will be notified by May 10, 2019.

## You're Invited!

Back by popular demand! The Sundae Special is a Laureate tradition since its inception. Time and location to be announced. A happy event to a funfilled week. Invite your family members to join us!

# Workshop Descriptions

Choose SIX of the workshop sessions which interest you. Number your choices in order of preference (1, 2, 3, etc.) in the boxes provided by each workshop you select. There is a maximum capacity attendance for each workshop so be sure to register as soon as possible. We will make every effort to provide three workshops of your choice. A workshop may be cancelled if there is insufficient enrollment.

## Because young minds matter

Grades 3-5

#### **DESTINATION SWITZERLAND**

Laureates welcome to another culture other than your own... Take a week-long trip to Switzerland, the "crossroads of Europe: and learn, oh, so many things such as their motto, their languages, housing, the people, schools, government, their neutrality, and SO much more. You will learn and enjoy this trip! (Since 3rd grade, it was always my dream to go to Switzerland!)

#### LAUNCH IT

Get ready for design challenge in the air! Design and build and air-powered rocket that can hit a target at least 5 feet away using balloons, drinking straws, paper and putty.

#### OUR LOVABLE ANIMALS

Invent a holder for 6 cans that's animal-safe, sturdy, convenient and easy to carry. Protect our animal friends from discarded plastic rings. Build, test, redesign. They will love you! Great Teamwork.

#### IF YOU BUILD IT, THEY WILL LEARN

An exciting session with a variety of topics. Make a balloon rocket, magical science experiment with uninflating balloon, exploding lunch bag, rocket staging, rocket car (Newton's Third Law of Motion), thirty minute bottle rocket. WOW! TOO KEWL!

#### BRIDGES TO EVERYWHERE

How did the chicken cross the road? If it were smart, it would have built a bridge! Build different kinds of bridges found in many locations. Use the K'NEX Comprehensive Bridge Building Set. Why are bridges different? Engineering challenges.

#### LAUREATES TEST KITCHEN

Your job is to test products and arrive at the best decision for, the best value. And performance. Kind of like giving the Good Housekeeping Seal. Which brand of paper towel absorbs water the fastest? Which paper towel is the strongest when wet? Which dishwashing soaps produce the most suds? Other topics.

#### CRE-EGG-TIVITY

Extraordinary learning "eggsperiences" with this session. Be prepared for (eggs)citing group interaction in logic, problem solving and the image of science using the incredible egg. Amazing what you can learn...

#### **CAPTIVATING SCIENCE**

Become involved in science fun with bottle caps- of all things!! Pop the top and learn. Water whirler: How can you turn a bucket of water upside down and not spill a drop? Can you design and build a parachute for a bottle cap? Counterfeit caps: What does it take to be a problem solver? Exciting team work. Observe, predict, data collecting. Unique session!!

#### PUFF MOBILE

Design and build a car that moves by wind power. It is a designer's challenge. Got to have those life savers! Please- no eating them. Details on kinetic energy and renewable resources. Advanced topics with easy learning. You and your team will easily harness the power of the wind.

#### STRAW TOWERS TO THE MOON

Civil engineering is front and center on this one! Design and build the tallest straw tower possible with limited time and resources just as a civil engineer would face these constraints. Teams work with rules as they brainstorm and improve their structures. To get ready for the BIG structure, you will work with two mini structures to assure building readiness, achieve your goal with using little material and money by the deadline to be the WINNER. Go for it!

# Grades 6-8

#### MEET HUMANOID ROBOTS

Big challenges lie ahead! Program a humanoid robot that can successfully navigate an obstacle course. Join a team of engineers to explore a shipwreck, deep underwater on the ocean floor. Very treacherous; need a robot for this mission. Be careful; dream big. Obstacles everywhere. Go for it!

#### **CODING WITHOUT COMPUTERS**

Program a human robot to build a pyramid of cups in as few steps as possible. As a Laureate, you will use a predefined "robot programming vocabulary" to write a program to build cup pyramids as efficiently as possible without verbal conversation. No talking, Please! Computer engineers use the connection between symbols and actions, as well as the valuable skill of debugging code. A too kewl workshop!!

#### SUGAR SPILL

Attention environmental engineers! There has been a toxic spill in downtown Dayton and an urgent need for you to lead the cleanup. Using bioremediation as the process, Laureates will select which bacteria they will use to eat up a spilled pollutant. Experiment with yeast as part of bioremediation. A workshop jampacked with science. Teamwork with learning.