Summer STEM Program
2018

Dear Parents and Students:

The Wentzville School District is pleased to provide you with a wide variety of high-quality summer STEM programs designed for students entering grades kindergarten through sixth grade. This program is available to students who reside in our District's boundaries. If your child is not currently enrolled in the Wentzville School District you will have to enroll them in the school they would attend during the regular school year **before** registration in classes can be completed. If you are not registered, space in a class will not be held until registration is complete and your child is enrolled in the Wentzville School District.

Registration: Please complete the appropriate registration form(s) and email back to tanyakirkpatrick@wsdr4.org. **The deadline for all registrations is May 18, 2018.** Classes with low enrollment may be cancelled. Students may only register for a class in the grade level they are entering.

Program Schedule: Classes will take place at Stone Creek Elementary. Classes will run Monday – Thursday from 8:00 am until 12:00 pm, July 9-July 19. Confirmations, including maps and room numbers, will be mailed in June.   If a course does not have sufficient enrollment, it will be cancelled and parents will be notified. If a camp is full your child will be placed in their alternate choice. If no alternate choice is listed, parents will be notified that their class is full. Students are expected to participate fully and cooperate in all activities. Disruptive behavior will not be tolerated and will result in dismissal from the program.

Supplies: Read each program description for any specific supplies that may be needed. Students will need to bring a pencil each day; all other supplies will be provided.

Transportation:
Transportation will **not** be provided by the Wentzville School District. There is no before/after care offered for the STEM program.

STEM CAMP

Held at Stone Creek Elementary. For students entering grades kindergarten through fifth grade. Classes run from 8:00AM-12:00PM, Monday through Thursday.   All camps are taught by Wentzville School District certified staff. Students should register based on the grade level they will *enter* for the 2018-2019 school year. Students must be picked up by a parent when the camp is over. Space is limited and parents will be notified if a class is full.

~~*Let's Get to the Heart of the Matter*~~ Class is Full
Instructor: Marie Spence
Kindergarten/1st Grade
This STEM course is a wonderful way to engage our youngest scientists in activities that explore and document the three states of matter and even how substances can move through more than one of those states. Activities will be hands-on and include daily journal entries as well as whole-group and small-group discussions to make predictions and cover the results of our activities. Get ready to roll up your sleeves and navigate your way through the heart of the matter during this fabulous summer course.

Fairy Tale STEM Class is Full
Instructor: Katie Krietemeyer
Kindergarten/1st Grade
Students will discover the fun of STEM through classic fairy tales. Students will delve into the world of Goldilocks and the Three Bears and the Three Little Pigs. They will be challenged to develop a plan for a chair that Goldilocks (or the three bears) can't break as well as a house that the Big Bad Wolf can't blow down. Students will then work in groups to use their engineering skills to execute their design and then test how well it works. They will be given the opportunity to make changes and retest their design. Put on your thinking caps and join us for some fun!

It's STEM-tastic!
Instructor: Amelia Schulte
2nd Grade
It's amazing! It's phenomenal! It's STEM-tastic! Novel engineering is my favorite way to explore the world of STEM, and I hope it will become a favorite of yours too! Let's go on an adventure this summer by using some of our favorite books to help us investigate science, technology, engineering, and math. We will collaborate with our friends to ask questions, research topics, design projects, and build inventions to help us solve everyday problems. Get ready to reuse and recycle as we turn trash into treasure. Sprinkle in some narrative writing with a dash of teamwork and a drizzle of reflection and we are ready for a STEM-tastic time!

~~*STEAM*~~ Class is Full
Instructor: Chelsea Siebert
2nd/ 3rd Grade
This course will focus on the basics of Science, Technology, Engineering, Art, and Math. This class will include daily STEAM challenges that will encourage the student's imagination to create new and interesting inventions. Students will also experiment with color theory. We will construct multiple structures to test their strength and durability. Students will grow their own plants while learning the science behind it. Math games and puzzles will be a fun way to practice math skills. Students will also be using technology to solve STEAM challenges. Students will be experimenting and creating all course long!

Stem Challenge
Instructor: Michelle Lunders
2nd/ 3rd Grade
In this class we will use simple machines to work into daily STEM activities. Each student will be challenged to use these items to plan and build. We will incorporate math and science in our lessons to challenge students to think outside the box. Our lessons will incorporate hands-on inquiry and open-ended discussions.

Books and STEAM
Instructor: Stacie Meyer
3rd Grade
We will read many fun stories and incorporate STEAM activities into our day. We will practice Novel Engineering where we will read a book and then find an engineering challenge to go along with it. We will question, design, build, create and problem-solve, all while having fun.

Wild about Math
Instructor: Abigale Keyes
3rd Grade
Students will work toward becoming an expedition scout for Wildlife Explorers International. As part of their job application process, they must create a safari field guide filled with information about animals from the habitat of their choice. Not only will students research different animals, they will use place value and number sense to create their animal's profile. They will then use a certain list of materials to engineer a habitat that will be best suited to the animal they researched.

Super STEM
Instructor: Stephanie Smith
3rd Grade
We will explore the four parts of STEM through a variety of fun activities. We will use everyday items to build our structures. Each student will have a specific job in the planning process. We will share our creations with the class.

Exploring Science with STEM
Instructor: Susan Meneau
4th Grade
Students will explore several science topics using science, technology, engineering, and math skills to answer questions presented to them. Students will make claims, find evidence and discuss their reasoning. Students will use experimentation to collect data and discuss their findings with other students in class.

Create, Code, Tell Stories
Instructor: Allyson Liefer
4th Grade
Ever thought about what it's like to be a computer programmer or coder? Well, now you can! We will create our own digital stories through Google's CS *First Storytelling with Scratch*. We will use computers to design our own stories, create and share animations, and learn how technology is used in the film and media industry. Storytelling with Scratch emphasizes creativity by encouraging students to tell a unique digital story each day. Whether you are brand new to computer coding or already have experience in computer science, this course is perfect for you!

Design Squad!
Instructor: Laura Bates
3rd/4th Grade
Do you love science and engineering? Do you like to be creative and help others? Come join the Design Squad! You will work with others to use your problem-solving skills through the engineering design process to find answers to fun and engaging STEM challenges. We will design toys and games as well as use engineering to discover how we can help others in our home and in our world. Design Squad is the place to be this summer!

Jurassic World
Instructor: Jennifer Foerstel
3rd/4th Grade
Travel back in time to the land of the dinosaurs. We will go on dino digs, measure dino footprints, and investigate the land as it was when these creatures roamed the Earth. We will create our own hybrid dino just like in the movie. Come join us for some pre-historic fun!

Project Wet!
Instructor: Zachary Orlando
4th / 5th Grade
This two-week STEM course is designed to help students explore and investigate the different facets of how water can be related to learning and life. We will focus on linking and connecting water to engineering and science. Students will gain an understanding of the value of water and will engage our higher-level thinking abilities in reading, math, and communication.

Brainy Inventions
Instructor: Brian Strokotter
5th Grade
Have you ever thought about how people lived in the past without some of the inventions or gadgets we use today? What about the gadgets that no longer have a use? We will give obsolete items a new life through redesigning our gadget to make it work better and be useful once again. We will use our creativity to produce our new item and market it to the public.

Batter Up!
Instructor: Jeremy Maranan
5th Grade
Are you a baseball fan? Do you like playing baseball? If you answered yes, then this class is for you. We will look at different baseball teams, players, and their salaries. We will investigate the science of baseball through investigation. We will look at which

is faster to slide feet or head first? Students will also apply their mathematical sense to the game. We will calculate the stolen base percentage against a given catcher or the on-base percentage plus slugging percentage for any given player. By the end of the class you will have your own team. How much will it cost? There is only one way to find out.

STEM Adventure!
Instructor: Michelle Durmeier
5th/6th Grade
Summer is a time for visiting the amusement parks and going on a thrill ride. In this STEM program students will see what engineers have to go through to create high flying roller coasters. Working from the base up, students will use hot wheel tracks to learn the process that keeps rollercoasters safely on their tracks while keeping the excitement seekers adrenaline high. With speed, turns, and loops students will understand the physics and structural concepts on how these amusement park attractions walk a fine line between risk and rewards.

Putt-Putting Along
Instructor: Michelle Cherry
5th/6th Grade
Put on your STEM hat and roll up your sleeves! This STEM session is all about Putt-Putt. You will be designing and building a life-size Putt-Putt Golf Course. At the end of the session there will be a Putt-Putt tournament.
S - learn all about force and motion and Newton's Laws. Apply that knowledge in designing a challenging Putt-Putt hole.
T - research the rules and regulations of Putt-Putt. Use apps and Google drive to create an advertisement for the course and tournament.
E - Design a prototype of your Putt-Putt hole. Build a sturdy, real-life version to play a game as well as a putter to use on the course.
M - Draw scale-model diagrams of your Putt-Putt hole. Use measuring tools, Geometry, and calculators to build your Putt-Putt hole.
Come Putt-Putt along with me and let's design and build our very own Putt-Putt Course.

Green Up-cycling Possibilities
Instructor: Stephanie Kinnison
5th/ 6th Grade
We will be looking at environmental issues using VR technology and explore possible alternatives for recyclable materials. We will develop an art project using various recyclables in an effort to see something other than it is. We will also choose a particular issue effecting the ecological cycle in our environment and find a way to make a difference through design thinking and up-cycling. Come join us and get your creative wheels turning.

Introduction to Project Lead the Way
Instructor: Ed Picone
6th Grade
We will be introducing several of the great PLTW classes offered in 6th, 7th, and 8th grades. This course will switch between robotic design and programming (students will build a robot and program if time allows), 3D modeling and printing (students will do hands-on design of fun inventions as well as learn to print, and make something unique to take home). We will also dissect a frog to see if the world of Biology is something you fall in love with. The purpose of this class is to show students what PLTW has to offer.

<u>Summer STEM Enrollment Form 2018</u>
(One form per child)

Student Information
First Name: _____ Last Name: _____
2018-2019 Grade Level: _____ Date of Birth: _____
School Child Attends: _____
Address: _____
City: _____ Zip: _____
Primary Phone: _____ Secondary Phone: _____
Parent(s) Name: _____
Email address:_____

Please list first choice and one alternate if applicable; if you do not have a preference on an alternate please write "any available."

Session 1 Registration Information (July 9-19)
Class Name: _____ Alternate:_____

Any special needs we should be aware of: (Allergies, physical and mental health, behavior or emotional concerns.) Or any circumstances that will help us serve your child better:
_____

*EMERGENCY CONSENT** In case of emergency, and if neither the parents nor a guardian can be reached, do you give your consent for emergency procedures to be followed by the Summer School staff? This care will be consistent with the care needed, and is to be of an emergency nature only. Agreement: I understand that my child is to attend each day, for the full day of the session(s) that I have registered him/her. I understand that absenteeism or disruptive behavior will result in dismissal from the program. I also understand that disruptive behavior will not be tolerated and that my child is expected to participate fully and cooperatively with all program activities.
RELEASE/WAIVER: I herby agree to indemnify and hold harmless the Wentzville R-IV School District and its representatives/employees from, and against, any and all claims for personal injury or damages of any kind from participating in the summer school sessions. Further, I authorize staff to seek emergency medical help if this becomes necessary. I realize that every effort will be made by the staff to contact me in the event of a medical emergency involving my child and I agree to indemnify and hold harmless staff in seeking medical care for my child.

YOUR SIGNATURE BELOW DENOTES YOUR APPROVAL OF THIS PROCEDURE.

Parent Signature: _____ Date: _____