**GT Summer Institute: General Information**

**WHO**
Students in grades 5-8 who are gifted and/or highly motivated

**WHAT**
Non-traditional, creative, and challenging classes for great kids.

**Daily Schedule:**
- Morning session: 8:30 AM - 11:30 AM (8:30-10:00 & 10:00-11:30)
- Lunch: 11:35 - 12:10
- Afternoon session: 12:15 PM - 3:15 PM (12:15-1:45 & 1:45-3:15)

**Questions: Contact**
- Lisa Crossland @ lcrossla@psdschools.org  970-472-3870 OR
- Rachel Eaton @ reaton@psdschools.org    970-472-3851
Morning Classes:
Pick one 3-hour class or two 1.5-hour classes

3D Printing & Engineering: Tech it out!
Teacher: Owen Murphy
Hours: 1.5
Description: Students will be asked to think like engineers and designers as we construct several structures physically and virtually. They will learn the IB Design Cycle and put it into action by completing engineering challenges. Students will also be introduced to TinkerCAD, Lulzbot 3D Printers, and several woodworking machines.

Capture Your Carbon and Explore Flight!
Teacher: Machin Norris
Hours: 3
Description: How exactly does carbon dioxide influence atmospheric conditions? How can we prove that carbon dioxide plays a role in altering atmospheric pH therefore increasing the temperature? Students will collect data and give rise to conclusion based on evidence. Ever wonder how airplanes fly? Experience all the fun and exciting features of flight! The program delivers the basics of flight, comparisons of wing types, projectiles and angles of trajectory, types of airplanes, and much much more. Students will go home with a free day pass to the Wings Over the Rockies Museum in Denver.

Computer Science – Python
Teacher: Karen Karppinen
Hours: 1.5
Description: Do you want to learn to make your own computer programs and see what it takes to compete in a programming competition? Explore theoretical and programming problems that appear on the ACSL computer science competition, and see if you can outscore some of this year's teams! You will gain theory and programming skills as we cover ACSL topics and make fun Python programs. Topics covered in the theory portion include number systems (binary, octal, hexadecimal), bit string flicking, Boolean algebra, recursive functions, and graph theory. Students should be new to Python.
Morning Classes continued:

**Creative Writing**
Teacher: Jennifer Jennings
Hours: 3
Description: In this course we will read the works of contemporary and classic writers to garner an appreciation for the talents of others. We will write, write, write and share, share, share until we have produced our very best works. We will gain inspiration from looking inside of ourselves and others. We will practice self-reflection and empathy. Some genres of writing we will explore are several forms of poetry, song lyrics, short stories, and 6-word memoirs. Student writers will go home with a completed portfolio of their own creative pieces. If you like to read and write, if you love words and language, or if you’re interested in working with other creative writers, please join us this summer!

**Daring Dissection**
Teacher: Christy Condon & Katie Ashby
Hours: 3
Description: Do you have an interest in biology? Maybe you are thinking that you would like to be a physician or veterinarian? Have you wondered how different body systems help us move through daily life? Then Daring Dissections is for you! In this course, we will take a look at the structures and arrangement of animal anatomy to better understand what makes life functions possible.

**Detecting Deceit**
Teacher: Connie Hubble
Hours: 1.5
Description: 2016 has been called the "Year of the Lie." Fake news has infiltrated social media, and the public is getting suckered through manipulation and deceit. Learn strategies to recognize fake news. Students will make public service announcements to educate the public (Facebook users) on online credibility skills.
Mini Mock Trial
Teacher: Noelle Brown
Hours: 1.5
Description: Want to learn your way around a courtroom? Wondering if you could be a lawyer someday? Or just wondering how a trial works? Then this is the class for you! This crash course in Mock Trial will help you learn the basic structure of a court case and the necessary elements involved. We will dive into a mock case and split into two teams; the prosecution and the defense. As a lawyer or a witness, you will build a case with your team and then run through a Mock Trial at the end of the week!

Survival!
Teacher: Ed Castro & Matt Mitchell
Hours: 3
Description: No one ever plans on getting lost, but it happens. If it does, will you be ready? This class focuses on the basics of survival in the outdoors with an emphasis on shelter and fire building (practiced onsite). The Larimer County Search and Rescue Team will be invited. Students will assemble their own beginnings of an authentic survival kit. BONUS: Basic first aid instruction and knot tying will be introduced.

Public Forum Debate & Extemporaneous Speaking
Teacher: Beth Wilms
Hours: 3
Description: Public Forum Debate is audience friendly debate. Two pairs (teams) debate controversial topics ripped from newspaper headlines Public Forum tests skills in argumentation, cross-examination, and refutation. In Extemporaneous, a contestant draws three questions, selects one, and then has 30 minutes to prepare a speech in response. The week will culminate with a mini debate tournament.
Morning Classes continued

Girls in Math and Science Competitions
Teacher: Karen Karppinen
Hours: 1.5
Description: This class will give girls a chance to explore exciting math and science opportunities available to them during middle school. We will learn some tips and tricks for MathCounts and other math competitions and explore the 23 events available to girls in Science Olympiad (Can you build a high-flying bottle rocket or a strong balsa wood bridge? Design an original science experiment in 45 minutes? Use mirrors to aim a laser beam at a target... without turning on the laser?), and talk about how girls can approach these competitions.

Presenting a Shakespearean Scene
Teacher: Janna Petersen
Hours: 3
Description: This class will inspire you to modernize a classic play by creating an acting company within our class and interpreting, rehearsing, and performing a scene from The Tragedy of Romeo and Juliet. You and your peers will have a blast as you take on the master of comedy and put his ideas in today’s media driven society.

Virtual Reality
Teacher: Becky Knips
Hours: 3
Description: This class is all about pushing the boundaries and exploring the unknown. We will design our own virtual reality using Unity, a professional 3D game design software, and then immerse ourselves into the new worlds using a Google Cardboard and HTC Vive virtual reality viewers. Students will also have the opportunity to use a 360° panoramic camera to create dynamic videos to view on both the computer and virtual reality headsets.
Science Crime Busters
Teacher: Michelle Berens
Hours: 3
Description: Students will practice the CSI skills used to identify perpetrators of a crime. We will look at unknowns such as powders and liquids; analyze hairs and fibers; investigate fingerprints, shoeprints, and tire treads; and perform paper chromatography.

Yoga for Teens & Tweens
Teacher: Robin Hughes
Hours: 1.5
Description: Participants will learn a brief history of yoga, the tools/equipment used in yoga, what to expect from a yoga class/aspects of sequencing a yoga class, some Sanskrit terms (the ancient language of yoga), group/and partner yoga, and about the wealth of health benefits for mind/body. We will also practice a full 45-60 minute yoga class each day!
Morning Classes continued

**Viking Lego Build**
**Teacher:** Will Moore  
**Hours:** 1.5  
**Description:** Think you have mad skills with Legos? Put your skills to the test with the Viking Lego Build Challenge! Each day there will be a new theme. You will be given a bin with random lego pieces to build your best interpretation of that theme. Test your engineering, art, and creative juices in the Scientific and Technical Innovation IB class.

**Your Inner Artist**
**Teacher:** Janice Martinez  
**Hours:** 1.5  
**Description:** We will explore ourselves through art! How can we express ourselves through the study of paint, photography, clay, drawing and structure? Every student will create his or her own projects based on where the student’s interest leads him or her.
Afternoon Classes:
Pick one 3-hour class or two 1.5-hour classes

**Brain Games**
*Teacher:* Michelle Berens  
*Hours:* 1.5  
*Description:* Students will use their critical thinking skills and enhance their creative thinking by working through a combination of strategy games, logic puzzles, and brain teasers. We will develop problem-solving skills through classics like Set and Go, and newer games like Suguru or Pandemic.

**Creative Writing**
*Teacher:* Jennifer Jennings  
*Hours:* 3  
*Description:* In this course we will read the works of contemporary and classic writers to garner an appreciation for the talents of others. We will write, write, write and share, share, share until we have produced our very best works. We will gain inspiration from looking inside of ourselves and others. We will practice self-reflection and empathy. Some genres of writing we will explore are several forms of poetry, song lyrics, short stories, and 6-word memoirs. Student writers will go home with a completed portfolio of their own creative pieces. If you like to read and write, if you love words and language, or if you’re interested in working with other creative writers, please join us this summer!

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Family Historical Interview

Teacher: Janna Petersen
Hours: 3
Description: The purpose of this class is to shake your family tree and learn a little about the life and times of one of your family members. You are to select an individual from your family who experienced a significant event during a period of history that you would like to investigate. This project requires you to conduct an interview with the individual or, if deceased, a family member who is familiar with the individual and the event. You will then research the historical period in which the event took place. Your findings will be published as a graphic novel that you will write and illustrate.

Public Forum Debate & Extemporaneous Speaking

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Video Game Design

Teacher: Lindsay McInerney
Hours: 3
Description: Invent your own simple video game using code and program design skills! You will combine basic programming skills with mathematical concepts to create a hero, target, and a danger. No previous coding experience is necessary.
3D Printing & Engineering: Tech it out!

**Teacher:** Owen Murphy

**Hours:** 1.5

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**Latin**

**Teacher:** Karen Karppinen

**Hours:** 3

**Description:** Seize the day? Definitely seize this unique opportunity to learn some Latin! The ancient Romans were a fascinating, bloodthirsty, complex people, with innumerable stories to explore. Diving into Latin and Roman history, culture, and mythology is a fantastic way to stretch your mind. Spend a week in the company of crafty conspirators, generals and soldiers, thieves and villains, epic heroes, and a bit of Harry Potter and/or Percy Jackson. Be immersed in the Latin language, explore Roman myths & culture, and find 50 ways to make yourself look amazing on college applications. Many classics students love to play Certamen (quiz bowl). If you're lucky, you will be able to face off against members of the state champion Certamen team in a quiz bowl on Friday (high school Latin students from various schools in Colorado)!

**Mini Mock Trial**

**Teacher:** Noelle Brown

**Hours:** 1.5

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Description: Participants will learn a brief history of yoga, the tools/equipment used in yoga, what to expect from a yoga class/aspects of sequencing a yoga class, some Sanskrit terms (the ancient language of yoga), group/and partner yoga, and about the wealth of health benefits for mind/body. We will also practice a full 45-60 minute yoga class each day!

Amazing Race
Teacher: Will Moore & Megan Agras
Hours: 3
Description: Your creative skills will be revealed as you work together to accomplish tasks once thought impossible. Each day you will compete in individual, partner and team challenges to earn points, Amazing Race Style! Identities & Relationships will be explored as well as Fairness and Development.

Bahama Drama
Teacher: Sharilyn Zerbst
Hours: 3
Description: This dramatic expression class is an opportunity for students to explore the world of drama. Students will gain personal confidence while learning aspects of drama including movement, teamwork, expression, and self-discovery. Students will develop and stage mime-sets. There will also be valuable time for students to voice their talent.
Afternoon Classes: continued

Poetry in the 21st Century
Teacher: Connie Hubble
Hours: 1.5
Description: To tweet, or not to tweet? Can you write a poem in 140 characters? Poetweet, or Twitter poems are the haiku of the 21st Century. Learn the art of brevity in verse. #gpoem #micropoetry

Learn Communication Skills from a Marshmallow
Teacher: Connie Hubble
Hours: 1.5
Description: Games, projects and reflective writing using marshmallows to learn important communication skills: non-verbal cues, listening to hear, clarifying questions, know objectives, recognize assumptions, and collaboration. There may be some marshmallow eating along the way.

Scratch an Introduction
Teacher: Bill Foster
Hours: 1.5 hours
Description: The class will introduce the basics of the Scratch programming application. Students can program interactive stories, animations, and games. Scratch helps students learn to think creatively, reason systematically, and work collaboratively - essential skills for life today! Scratch is a project of the Lifelong Kindergarten Group at the MIT Media Lab. The application is provided free of charge. For additional information visit the https://scratch.mit.edu/ web site. Get your geek on!
Raspberry Pi an Introduction

**Teacher:** Bill Foster  
**Hours:** 1.5 hours  
**Description:** Have you heard of the Raspberry Pi? It is a computer about the size of a deck of cards and can be used for a variety of small computer projects. This class will introduce students to the Raspberry Pi, its primary features, and the basics of setup and use. Students will also explore Pi related projects they may choose to develop with their Pi after class ends. Get your geek on!  
**NOTE:** At the end of the class, students will bring home the Raspberry Pi they have been using, an SD memory card with operating system, and the Pi power supply.  
After the class ends, **students will need the following to continue to use the Raspberry Pi at home:**  
- Monitor with DVI connection and DVI to HDMI video cable  
- Monitor with VGA connection and VGA video cable and VGA to HDMI adapter  
- Mouse USB  
- Keyboard USB

Your Inner Artist

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Survival!

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All-Day Classes

Once Upon a Time: Story Theater Workshop
Teacher: Lynn Bogner
Hours: 6
Description: Tap into your inner actor! Come play, develop a character, and practice the art of performing as you work as part of a team to dramatize a story! Class will begin with creative dramatics and theatre games to prime the imagination. Then, we will move on to reading a script, taking on a role and learning while participating in the various aspects of theatrical production, such as memorization, expression, projection, costumes, set, make-up, and sound effects. This year our play will tell the myth of Thor and Loki. Express yourself and be part of the magic that comes with making a story come to life!

Summer Programming Camp for Middle School Girls
Teacher: Chris Wilcox
Hours: 6
Description: The summer programming camp will include Scratch programming, basic web development, and a limited introduction to the Python language. Scratch is a block language from MIT that allows students to program animations and small games. Basic web development covers the create of web pages using HTML and CSS style sheets. Python is a full-featured programming language used in academia and industry. The course is intended for students with no programming experience.
Teacher Biographies:

Michelle Berens  mberens@psdschools.org
Mrs. Berens is curious about almost everything (did you know that Americans use about 3 million miles of dental floss a year?). Teaching gives her a chance to inspire young people to develop their own curiosity, think about the world critically, and stand up for their beliefs. She especially loves math and science, and is an avid podcast listener! Mrs. Berens also enjoys gardening, decorating, and hanging out with her family.

Lynn Bogner  lynn bogner@gmail.com
Lynn Bogner has a BA in theater from Rollins College and has worked in various front of house, back of house, administrative, and creative positions over the course of her theatrical career. She has worked on the props crew at the Santa Fe Opera, co directed comedy variety shows at Caroline's Comedy Club in New York City and was the assistant to the Associate Producer for Chicago on Broadway. Lynn is excited to work with the next generation of theater kids!

Noelle Brown  nobrown@psdschools.org
Ms. Brown is a Broncos fan and a cat lover who graduated from CSU with a teaching degree in mathematics. She enjoys working with students in the classroom and on the track while she coaches track & field. In her spare time, she loves to visit her family and spend time enjoying all that Fort Collins has to offer.

Ed Castro  ecastro@psdschools.org
Ed Castro is a recently retired veteran of 35 (glorious) years of teaching in PSD. One of his loves has been working with gifted children in a variety of settings. In this next chapter of life, he continues teaching children and adults (teaching is what he does), traveling (isn't that what retirees do?), working out more in the gym (gotta stay buff), spending time in the outdoors (smell the roses), hanging out with his wife of 41 years (yes, there is a honey-do list!), as well as just taking a more relaxed pace in the day-to-day. He looks forward to interacting with your child in a relaxed summer setting.
Christy Condon  ccondon@psdschools.org
Ms. Condon teaches 6th grade Math and Science at Lesher Middle School. She has a passion for animals and spending time outside enjoying recreational activities. She has taught several dissections in the past ranging from cow’s eyes to dogfish sharks in states spanning from California to Georgia! She is looking forward to working with students at the GT Summer Institute.

Bill Foster  wfosterj@psdschools.org
Mr. Foster worked in the corporate world technology environment before deciding he wanted to invest in education. As Lesher’s Technology Site Assistant, he enjoys working with students and staff to find tech solutions so that education can go on! Learn with someone who enjoys experiencing new technology and likes computer hardware and software and working with other people who do!

Connie Hubble  chubble@psdschools.org
Mrs. Hubble teaches high school English classes and is the Gifted and Talented Coordinator at Poudre Community Academy. In her time away from school, she likes to travel, learn about different cultures, and play board games. She especially enjoys riddles and puns. Mrs. Hubble is excited to spend a week with the students at the GT Summer Institute.

Robin Hughes  rhughes@psdschools.org
Robin is a registered yoga teacher with the Yoga Alliance. Robin is the owner and lead instructor of Family Balance Yoga, a local studio specializing in yoga classes for all members of the family to practice together or apart! Robin is also a K-5 English Language Development Teacher (ELD) at Bethke Elementary School and Werner Elementary School.
Karen Karppinen  karp1248@gmail.com
Ms. Karppinen works with gifted students at Lone Pine Classical School. She has taught AP Latin, AP Calculus, AP Computer Science, and has coached students for many academic competitions since 2001. She teaches at a high level and students respond in kind. You will learn a lot in a fun environment!

Becky Knips  rknips@psdschools.org
Game On! That’s the motto Becky Knips lives by every day in her classroom at Lesher Middle School. Becky has taught Web 2.0, Game Programming, Web Design, and Yearbook to 6th, 7th, and 8th graders since 2007. Her days of geeking out started back in kindergarten when she would load the 5.5” floppy disk onto the Apple IIe computer and play Oregon Trail. Since conquering the Oregon Trail, Becky has moved on to get an undergraduate degree in Computer Education from Dakota State University and a master’s degree in Educational Technology from the University of Northern Colorado. When she’s not glued to her tablet, phone, and/or desktop computer, Becky enjoys being outdoors at her family’s log cabin in Pingree Park and attempting to complete all of her projects on Pinterest.

Janice Martinez  janicem@psdschools.org
Ms. Martinez is a 15 year master teacher at Lesher Middle School who is a mathematician and leader at heart. In the last five years, a new love has blossomed as she met and married her husband and gave birth to her lovely, entertaining daughter.

Lindsay McInerney  lmcinerney@psdschools.org
Lindsay McInerney has a combined 8 years of experience teaching math and physics to middle and high school students, as well as coaching Knowledge Bowl at the high school level. Outside of school she enjoys spending every minute of her free time with her 1 year old son, and hiking and camping with her husband in Rocky Mountain National Park.
Teacher Biographies continued

Owen Murphy  omurphy@psdschools.org
Mr. Murphy has been teaching for 5 years and in that time has taught Math, Science, Robotics, and Tech/Engineering. He enjoys making mad science creations in his lab, climbing, camping, hiking, and pursuing new ridiculous adventures with his dog. Because of his unique lessons and teaching style, Mr. Murphy's students at Lesher are often eager to take his classes multiple times.

Beth Wilms  bwilms@psdschools.org
Wilms initiated the creation of Lesher's Forensic/Debate Team in 2010 and coached it for three years. In addition, she judged high school forensics and debate while in college. She developed her debate skills at the dinner table, as the youngest of three and the child of a lawyer and a theologian.

Sharilyn Zerbst  szerbst@psdschools.org
is a Gifted and Talented instructor at Rice Elementary. She has an MEd in Curriculum and Instruction with Reading Specialty and a Bachelor of Science in Elementary Education and Middle School English Education. She has been teaching for over 18 years in a variety of settings as classroom teacher, interventionist, gifted and talented instructor and enrichment educator. She has loved the opportunity to coach musical theatre productions such as Seussical. She loves to grow the nuggets of creative genius in kids’ minds and show them how to express it in a variety of venues.
Megan Agras  magras@psdschools.org
This spring Ms. Agras is student teaching at Lesher Middle School in a 7th grade math class and will be graduating from Colorado State University in May with a major in Mathematics and a minor in Spanish. She loves to travel and spend time outdoors, so living near the mountains is the perfect place! Even though she loves teaching and hope that one day it will be her career, her dream job is to be a tour guide in another country.

Katie Ashby  kashby@psdschools.org
Katie Ashby grew up in Fort Collins, and graduated from Bowdoin College in 2013 with a BA in Anthropology and Chemistry. She recently received an M.Ed from CSU and is very excited to be a part of the GT Summer Institute after student teaching in an 8th grade science classroom at Lesher. Katie is passionate about exploring the natural world through science and drawing on inspiration from her favorite scientist/imaginary best friend Bill Nye. She can't wait to continue her teaching career working with amazing students this summer!

Matt Mitchell  mmitchell@psdschools.org
Mr. Mitchell is originally from the great state of Texas. He moved here 2 years ago due to his love of the mountains and all things outside. He enjoys hiking, biking, and disc golf to name a few of his favorite activities. He holds a bachelors degree in criminal justice and has a masters degree in teaching. He currently coaches golf, tennis, and basketball at Lesher. Although he does not miss the hot Texas weather, he does go home on occasion to enjoy some great bbq. He is looking forward to getting to know your child this summer.
Teacher Biographies continued

Jennifer Jennings  jjennings@psdschools.org
Jennifer Jennings recently moved to Fort Collins last summer with her husband and two daughters. She currently teaches 7th grade English and is working on her 11th year of teaching. In the past, she has taught newspaper, creative writing, 9th and 10th grade English. She loves to hike and be outside every chance she can. She is excited to share her love of reading and writing to aide your student in creating stronger writing skills.

Janna Petersen  jpetersen@lexington1.net
Janna Petersen is a Lesher Viking fan of sixteen years, even though she now calls South Carolina home. It is fun for her to inspire young minds to think outside of the box. With 19 years of teaching under her belt, Janna is excited for the opportunity to serve students for 19 more years! She forms relationships with students and families and is famous for inspiring a growth mindset in students as they leave class willing to try new things. She looks forward to being back aboard the Viking Ship for this week of Lesher's GT Summer Institute.

Chris Wilcox  wilcox@cs.colostate.edu
I worked in the software industry for more than 25 years at companies including Hewlett-Packard, 3dfx, and nVidia Corporation before returning to school at CSU in 2006. After finishing my doctorate in 2012 I moved into a teaching position at CSU, where I teach primarily freshman and sophomore level courses. My current research interests are in Computer Science education, with an emphasis on automated grading and female participation. In addition to teaching college students, I have recently begun a Girls Who Code club for middle and high school girls.
Machin Norris  mnorris@weldre9.k12.co.us

Ms. Machin Norris is currently a science and agriculture teacher in Northern Colorado. She is a Space Foundation Teacher Liaison, participates in the Civil Air Patrol (CAP) and Aerospace Education EXcellence (AEX), WASP certified teacher, CASIS Space Station Ambassador, and a member of the Planetary Society and certified STEM teacher. While passionate about space, Ms. Norris enjoys sharing her love of learning about the environmental sciences and promotes student learning through applicable application. In her free time, outside of education, you will likely find her coaching volleyball, on a mountainside with her 10 year old son, or out paddling on a lake or reservoir in the summer.