Summer Programs Catalogue

2022

Center for Bright Kids

Academic Talent Development

a bright spot for bright kids...

University of Colorado Boulder

Center for Bright Kids Academic Talent Development
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CBK is a 501(c)3 non-profit education center

Welcome to CBK Summer!

Center for Bright Kids Academic Talent Development

Welcome to the Center for Bright Kids! This is our **40th year** operating summer programs for bright, high interest and high ability students. The logo for the Center for Bright Kids communicates our emphasis on community and energy. As we hope that our programs offer "a bright spot for bright kids," the logo embodies the movement, energy, and connections that CBK can offer, as well as the possibilities for moving forward and transcending layers or borders that often present obstacles to our gifted and talented students. We hope to bring kids together to learn, think, and live in an intellectual community that is safe, while still presenting the challenge, enthusiasm, and rigor that encourage kids to take their experiences with this community and apply them to the lifelong journey beyond CBK.

As such, our summer programs are focused on a talent development model that balances academic experiences with residential life. Residential programs offer students a fresh start with their peers, often enabling them to feel more accepted as they share experiences with other gifted and talented students. Our students have unique interactions, develop leadership skills, exchange ideas, and build friendships with a diverse group of individuals from across the country in an inquiry-driven, hands-on learning environment that provides a space to take risks in thinking differently. **The University of Colorado Boulder is our home** for offering high interest courses full of academic rigor, new experiences, and fresh challenges as well as dynamic recreational opportunities while we nestle into the Flatirons of the Rocky Mountains for the summer. This summer, there are likely to be modifications in place on campus due to the continuing pandemic. We appreciate your patience as we navigate these shifts with you! Please remember you must set up a family account for CBK Summer that you can sign in and out of to manage your experience! **Every family will need to create a new account, as we purge records every year to protect student data.**

This catalogue includes all three summer programs with 2022 course and program information. Every year, many courses and instructors change, but a majority of our students continue coming back as they age through the programs. If summer programs are only part of your CBK participation, please check out the **Western Academic Talent Search** and our other programs at our website:

www.centerforbrightkids.org

In this year of changes, **we are committed to on-campus, in-person excellence!** Tired of all the uncertainty? Join the thousands of kids and families who participate in CBK programs each year. Feel free to give us a call at 303-428-2634 or drop us an e-mail at cbk@centerforbrightkids.org for more information about us and the ways we support the academic, social, and emotional growth of bright youth.

I look forward to seeing you this summer!

Dr. Amy Rushneck, Executive Director

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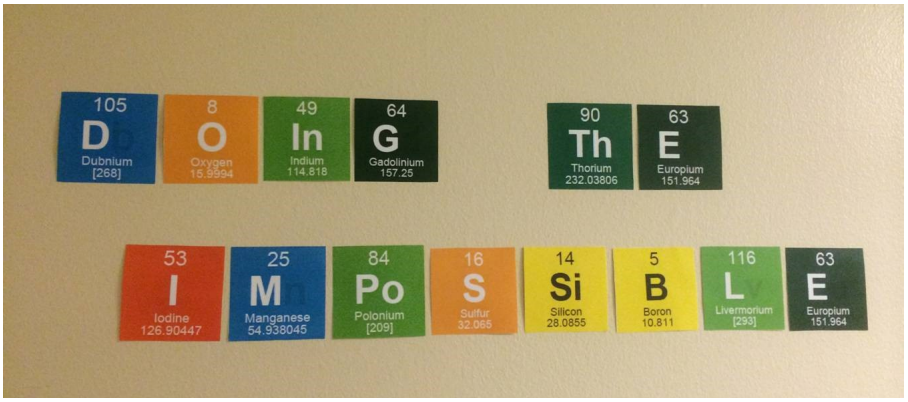
Academic Talent Development

CBK Philosophy and Welcome



Since 1982, the Center for Bright Kids has offered summer programs for high-interest, high-ability students. Rooted in the talent development model, CBK summer programs offer students the opportunity to study with bright, motivated peers, enhance their preparation for advanced coursework, and establish long-lasting friendships with students from across the country and around the world. Students with exceptional ability entering grades 4-12 in the fall are offered a varied selection of enrichment and acceleration courses on campus. Together with outstanding instructors, we create courses in which students discover the optimal match of interest, academic ability, and pace of instruction. Residential staff are college students who offer energetic support and insight into the many issues our bright students face. Many staff were once participants themselves! Overall, challenging academics and supervised extracurricular activities enable students to gain academic and social confidence during these intense summer programs. Join us this summer at CBK for the next step on a journey of lifelong learning!

Mission Statement

The mission of the Center for Bright Kids is to provide access and opportunities for K-12 students with high interest and/or high ability in quality enrichment and acceleration programming that encourage self-growth, social responsibility, and a positive view toward lifelong learning.

Vision Statement

The vision of the Center for Bright Kids is to offer opportunities and experiences that enrich the whole child - intellectual, social, emotional, personal, and ethical.

We believe that it is essential to uphold an authentic commitment to reflect the broad diversity of our families, communities, and region within our programs and to engage community input in those efforts.

We will encourage imaginative thinking, a discovery of the world, a passion for thinking and playing, and a world view that emphasizes recognition of our role as members of a global community.

We promote student independence, confidence, empowerment and positive self-esteem through respectful, responsible, and accountable contributions in a community that is safe and responsive to the need for a sense of belonging.

University of Colorado Boulder

The University of Colorado Boulder (CU Boulder) is a dynamic community of scholars and learners situated on one of the most spectacular college campuses in the country. CU Boulder is one of 34 U.S. public institutions belonging to the prestigious Association of American Universities (AAU) and has an established reputation for world-class teaching, research, and service to the global society.

At the cornerstone of the university experience are CU Boulder's innovative academic programs, hands-on opportunities and rigorous course work that will prepare students for a complex global society. Within the supportive learning community, students will interact with world-renowned faculty—which include Nobel laureates, MacArthur "genius grant" fellows, U.S. Professor of the Year awardees and National Medal of Science winners—who listen, question and help students refine their ideas to develop a broad understanding of the world, strong leadership skills and an enhanced ability to think critically.

CU Boulder offers more than 110 undergraduate and graduate programs; 84 bachelor's majors; 34 concurrent bachelor's/ master's degree programs; more than 30 minors and 29 certificate programs. The university has 11 research institutes and nearly 90 research centers, with more than 2,000 undergraduate students directly involved in faculty research.

With hands-on experience, world-class education and the ability to think critically, globally and creatively, CU Boulder graduates benefit from a strong salary potential, high employment rates and the opportunity to find and excel in careers they are passionate about.

What is Academic Talent Search?

In 1972, Dr. Julian Stanley, a psychology professor at Johns Hopkins University, introduced the first talent search designed to identify, challenge, and recognize academically able young people. Since 1979, talent search institutions expanded to offer a wide range of academic opportunities and to conduct research, disseminate information, consult with educational organizations, advocate public policy initiatives, and offer diagnostic and counseling services.

Talent Searches identify, assess, and recognize students with exceptional mathematical and/or verbal reasoning abilities. Students qualify for participation in the Academic Talent Search by scoring at or above the 90th percentile on a nationally-normed, standardized aptitude or achievement test. These students are "hitting the ceiling" on these grade comparison tests. The Talent Search gives students the opportunity to take a test designed for older students (above-level), with a higher ceiling. This testing will reveal more about their academic abilities and will allow them to compare their results with those of other highly able students. They will also learn about educational options and opportunities for students with similar abilities, and they will receive recognition for their outstanding achievements. Academic Talent Search is a national model, with only a handful of talent development centers offering this off-level testing opportunity.

The Western Academic Talent Search provides many benefits for high ability students across the western United States. While testing only offers one snapshot of student ability in a portfolio of talent, Academic Talent Search scores are used to help us identify the **optimal match** of student interest, pace, and ability level as applicants select summer courses and determine what's next in their academic pursuits.

Frequently Asked Questions

Is my child required to participate in Talent Search in order to attend CBK Summer Programs?
No, students may apply through the portfolio process. Lots of kids access our program this way and do Talent Search later.

Are kids in classes all day long? No—multiple activity periods are part of the socio-emotional emphasis in all three programs—as much as kids think hard, they play hard. Instructors do not assign extensive homework so that brains can reboot.

Who is in charge on campus? How will I know my child is safe? Multiple measures are in place to ensure the enjoyment and safety of all participants. All staff are background checked and mandatory reporters, and Campus Safety is part of our team. A CBK administrative team of the Executive Director, Residential Director, and Associate Residential Director are on campus and ALWAYS on call during each program. Please review the Honor Code online for more information on our student policies.

Will my child receive high school or college credit for participating? Credit transfer cannot be guaranteed, although CBK encourages Luminary Project students to talk with their high school guidance counselors ahead of time to check into this possibility, as equivalency seat hours are met and all academic standards referenced. Full transcripts are provided upon request.

What about the cell phone policy—I am nervous that my student is far from home?
Students are not allowed to have cell phones with them during the program. This policy is for safety and connection to the program. Students arriving by airplane are asked to bring a phone that can be checked in with staff upon arrival. We have found that kids and families very much appreciate this policy once they have experienced it. Most parents are jealous!

Programs Overview

CBK SHINE (Students Headed Into New Enrichment) ***June 12-18***
CBK SHINE is a one-week residential program for rising 4th-6th graders who live on campus. Students take one accelerated enrichment course of high interest that offers exploration for **four hours a day**, with a strong, daily, organized residential program to complement the experience. SHINE focuses on conceptual development through hands-on, inquiry-driven experiences in problem solving.

CBK GLOW (Gaining Leadership, Obtaining Wisdom) ***June 12-25***
A transitional program between SHINE and the Luminary Project, rising 5th-8th graders attend this two-week residential experience and focus on one course of study for **five hours a day** that is a blend of academic enrichment and acceleration based on pace, ability, and interest. Courses begin with an introductory accelerated week that overlaps with SHINE to support differentiated foundational knowledge, then quickly evolve into intensive acceleration that feels like a high school course for week two. One full residential weekend provides off-campus activities as part of this program. Students do not go home for the weekend.

The CBK Luminary Project ***July 3-23***
The Luminary Project is a three-week residential program for mature rising 8th-12th graders. Students focus on one intensive course of study that is an equivalent to one full year of honors level high school content or one semester of college content. Courses feel more collegiate. Classes meet **six hours a day** for total high school credit equivalency seat-hours. Two full residential weekends provide off-campus activities and one instructional period. Students do not go home for the weekends or the Independence Day holiday.

SUN	MON	TUE	WED	THR	FRI	SAT
JUNE	SHINE /	GLOW				
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
JULY	Luminary					
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Program Eligibility

Students qualify for CBK Summer Programs based on SAT, ACT, or WATS eligibility test scores or through a portfolio admission process (see page 24 for more information on portfolios). Reading, Writing, or English scores are used to determine eligibility for Humanities courses, and Mathematics or Science scores determine eligibility for STEM courses. Please review the chart below for score requirements and see courses for coding. Scores from any Academic Talent Search for program admission are good for two years (Jan 2019); students are not required to retest each year in order to maintain eligibility for the summer programs unless aging up. Students may attend more than one program. **AGE OR GRADE RANGES** are indicated as of the first day of the applicable program and on program pages are all indicated as **rising grades** (grade in fall following summer).

SHINE	Minimum of 8 yrs old at start of program AND finishing grade 3 or maximum of 12 yrs old	
GLOW	Minimum of 10 yrs old AND finishing grade 4 or maximum of 14 yrs old	Mature rising 5th graders may apply but will need academic evidence for success
Luminary	Minimum of 13 yrs old AND finishing grade 7 and not yet 18 on the first day of the program.	Mature rising 8th graders may apply but may need additional evidence

OR PORTFOLIO	**WATS eligibility**	**ACT**	**SAT**
SHINE	90th% or higher on nationally normed academic achievement test -	ACT report, no minimum score	SAT report, no minimum score
GLOW	may be composite or "advanced" (see website)	ACT report, no minimum score	SAT report, no minimum score
Luminary	Not accepted	M/S20; R/E20	M540; R26; EBRW530

Course Selection

Students should choose courses to which they are willing to commit time, energy, and enthusiasm, and that are in line with their academic strengths, interests, and educational objectives. Students will be placed in their first choice courses when possible. First choices are honored on a first-come, first-served basis. Class size for all courses is limited based on enrollments. Courses with too few students will be cancelled and students moved to their next available choice. ***Applications will not be considered until fully complete including recommendations and required payments.*** Students should only list courses on their application which they are willing and motivated to attend, if assigned. This includes second and third choice courses. **The application fee is nonrefundable for any reason. CBK reserves the right to cancel any course due to insufficient enrollment**.

CBK SHINE:
Students Headed Into New Enrichment

CBK SHINE is a one-week residential program for 4th-6th graders who live on campus. Students take one accelerated enrichment course of interest that offers exploration for **four hours a day**, with a strong, daily, organized residential program to complement the experience. This program focuses on conceptual development through hands-on experiences that include inquiry, creativity, aesthetic expression, and problem solving. Residential life and programs promote friendships and social interaction with peers who also have high academic and creative interest.

STUDENTS: Students entering **grades 4-6** in fall 2022 or ages 8-12
DATES: Sunday, June 12 – Saturday, June 18
ADMISSION: ACT or SAT score report
OR 90% or higher on a nationally normed test as eligible for WATS
or portfolio application

2022 SHINE Courses

The Storyteller's Process: Creative Writing Workshop (H)
And, Scene! Building a Character Through the Actor's Lens (H)
Engineering the Final Frontier: Human Spaceflight (M/S)
Do We Live in a Simulation? Questions About What's Real and What's Right (S/H)
Touring the Solar System: Observational Astronomy (M/S)
Digital Photography: Capturing the World (H)

(denoted by (H)umanities, (M)ath, and/or (S)cience focus for eligibility)

2022 SHINE Courses

The Storyteller's Process: Creative Writing Workshop

Are you a good storyteller? What does it take to tell a good story? What's the difference between telling a story and writing it down? In this course, we will hone your skills as a storyteller, whether you're sharing a personal memory, telling a joke, or crafting an epic adventure. We will learn the tools that good storytellers use to hook an audience's interest, weave together details of plot, character, and setting in an interesting way, and finish off with an ending that leaves people laughing or pondering. The choices storytellers make when crafting their stories become a process, which gives them the opportunity to develop each story into something unique and effective. Modeled as an active, hands-on workshop, this course will help each storyteller develop a process, find a personal writing voice, and produce a sample of work that each feels proud of.

Jess Kern graduated from CU Boulder with a B.A. in History and Spanish Literature and from University of Chicago with an M.A. in Social Sciences, with research focused on the relationship between society and literature. She has been a classroom teacher for several years, and currently teaches social sciences and humanities at Vector Progressive School. As a long-time CBK returner, she is absolutely thrilled to be back at CBK this summer as an instructor.

And, Scene! Building a Character Through the Actor's Lens

Have you ever wondered how actors manage to transform themselves for a role - how they're able to completely change their personalities, movements, and even their voices to fit each new character they play? How does Chris Evans become Captain America, or Julie Andrews become Maria von Trapp? In this course, we'll attempt to break down the tricks of the trade, and let you use them to create characters of your own! We'll discuss the aspects that make up a character, both internal and external. We'll discuss motivation, background, and personality, and how they come together to determine a character's actions. We'll also study the way people (and animals!) move, and how we can make our bodies move in the same ways to convey specific meanings. Finally, we'll put these characters together in scenes, and see how different goals and methods lead to unique interactions, and the beginnings of brand-new stories.

***MATERIALS**: $20 lab fee.*

Aaron Alper is currently completing a B.A. in Theatre Arts and Performance Studies from Brown University. He has experience and training in scripted and improvised performance, as well as directing, playwriting and dramaturgy. Aaron is excited to return to CBK this year!

Engineering the Final Frontier: Human Spaceflight

How can humans safely travel to and from space? How do satellites stay in space without ever falling back to Earth even though gravity still pulls on them? In this course, we'll be investigating the engineering behind human spaceflight. We'll dive into the engineering process and look at how we can intelligently design, refine, and build to solve even the most difficult of problems. We will explore how this process has impacted modern technology, from the reusability of the Space Shuttle and its ability to repair satellites in space to SpaceX's new 28-story tall Starship rocket that will be fully reusable, with plans for it to be caught out of the air by the launch tower. We will use this process ourselves to design and create vehicles that can hold air in the vacuum of space, allow payloads to survive falls from great heights, and even protect sensitive materials from the extreme heat of atmospheric reentry! The course will conclude with students using their experience to design and build a scale spacecraft of their own!

***MATERIALS**: $50 lab fee.*

Ben Chapel is currently pursuing a B.S. in Engineering Physics as well a B.S. in Aerospace Engineering at the University of Colorado Boulder. After he graduates he hopes to either pursue a Ph.D in Physics or enter the Aerospace industry. Ben is particularly interested in rocketry, working as the Project Manager for the Liquid Engine Development team of the CU Sounding Rocket Laboratory Club. CBK has been a large part of Ben's life for many years and he is excited to return this summer.

"The residential program was wonderful – it was a very positive growing experience. The program was very organized and I felt very comfortable leaving my child."

"The top thing I learned about myself is that there are other people similar to me and that makes me think, 'I am as special as anyone else.'"

2022 SHINE Courses

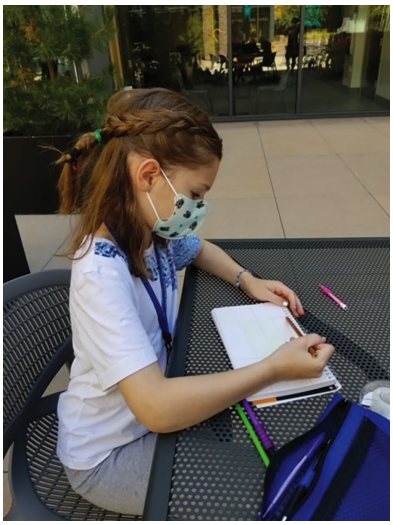
"This has been the single most fabulous experience of my son's life. He felt the coursework was challenging, but appropriate. He loved meeting the kids and the staff. He was so glad to have an opportunity to be 'independent' for the first time. I cannot thank you enough for providing this opportunity for my son."

"I learned that any project is possible if you try really hard."

Do We Live in a Simulation? Questions About What's Real and What's Right

Elon thinks that we are probably all in a simulation - what do you think? Bruce thinks we will be able to transplant brains one day - if so, should we? Jean-Francois thinks self-driving cars should be programmed to always protect their passengers - do you agree? This course considers these and other deep questions people all over the world ask and discuss. We will talk about the implications of new technologies, what we think our world is like, what science is telling us about it, and how we should behave in it. We will experiment with scenarios, investigate what others have thought about these questions, and hold a final debate to discuss each side of an argument. Students will come away with an understanding of how to tackle challenging questions and formulate their own reflections about many of the big questions around technological advancement.

Mark Hopkins received his B.A. in Philosophy from the University of Wales, Swansea. He spent a career designing and building software solutions for the travel industry before switching to education, more recently teaching in schools in Denver and Aurora. He is also a founding member of the Denver Philosophy Book Club that meets bimonthly. He is excited to be on "this side of the desk" at CBK this year!



Touring the Solar System: Observational Astronomy

What would you see on a road trip through our solar system? Why do the planets "stay in their lanes", and what are stars like up close? This course will be an observational astronomy course, exploring the objects that exist in our universe. We will learn about planets, moons, comets, and asteroids, and about the fundamental forces that keep them in motion. Then, we will discover the properties of light and waves, and how those properties help us understand things like stars and galaxies - and even how a microwave can teach us something about the history of the universe. And since space is full of strange spectacles, we'll examine unique phenomena like black holes, nebulae, and pulsars. The course will culminate with students designing their own solar system with astronomically appropriate properties!

Sadie Seddon-Stettler received her B.S. in Astronomy & Astrophysics and her B.A. in Physics from the University of Chicago. She has worked as a tutor for undergraduate physics at UChicago, and as a research assistant at UChicago and FermiLab. She plans to attend graduate school and further her research, which focuses primarily on high-energy particle physics and dark matter. Sadie looks forward to returning to the CBK family this summer and reaching for the stars!

Digital Photography: Capturing the World

Taking a good photo isn't as simple as point and click. What goes into your frame? What should you leave out? What decisions are made for appropriate lighting? And how do you touch up a photo once you've taken it? Together, we'll explore the history of capturing images, from the camera obscura, the silver-plated daguerreotype and the invention of film to the modern digital camera. Once we reach the present era, we'll learn modern methods and techniques for taking great photos; such as staged tableaus and photomontage. Once you've taken your photos, we'll bring them into the digital darkroom and learn how to edit them, giving them professional finishing touches such as correcting white-balance and lens-warp to end the program with several high-quality photographs to start your portfolio! ***MATERIALS**: $50 lab fee and you will need to bring a laptop to personally use with Darktable installed.*

Emaline Gotthoffer-duCharme is a professional artist and photographer who studied in the University of Colorado-Colorado Springs fine arts program. Her photography has been displayed as part of exhibitions both at the Heller Center for Arts & Humanities and at the Gallery for Contemporary Art. Having taken photos anywhere from 70ft below sea-level to 14,000 above it, she has a wide range of experience with different cameras and conditions, as well as different fields of photography. She is so happy to be back for another CBK summer!

SHINE Program Format

Student Housing and Supervision

Students will be housed in a smaller traditional residence hall, which is locked at all times to outsiders. We are the only program in this building during the summer. Students live in wings of no more than 14 participants per Residential Assistant. Students live in nicely-sized rooms with two XL twin beds. The shared floor bathroom offers private showers. Students will be assigned a roommate approximately the same age or they may make specific roommate requests—**both students must request one another** on their acceptance forms. Roommate requests cannot be guaranteed to be filled and roommates are not reassigned. Siblings will not be placed on the same wing as we are able. In this program, students are escorted to all activities and are not unsupervised at any time. Residential Assistants are thoroughly screened and selected for their ability to relate to students of this age and they participate in a rigorous pre-program training that includes other campus personnel who are present throughout the program to ensure student safety. Access to e-mail and phone calls will be available on a very limited basis to prevent homesickness. Students may not bring computers (unless checked in to their course), cell phones, or any transmitting devices. Kids **will not do laundry** during this program due to time constraints. Students are required to live on campus and to participate in both the academic and residential life of the program. This may mean that students will miss sports practices or other extracurricular commitments at home. CBK is unable to accommodate competitions, performances, physical training regimens or lessons schedules. CBK operates as a closed campus and visitors are not allowed at any time during the program for student safety.

Daily Schedule

7:30am-9:30am	Breakfast and Morning Wing Time
9:30am-11:30am	Morning Instruction
11:30am-12:30pm	Lunch
12:30pm-2:30pm	Afternoon Instruction
2:30pm-4:30pm	Afternoon Activities
4:30pm-5:45pm	Down Time on Wings
5:45pm-6:30pm	Dinner
6:30pm-8:00pm	Evening Activities
8:00pm-8:30pm	Wing Meetings
8:30pm-9:30pm	Quiet Time on Wings
9:30 pm	Lights Out

The schedule for this program is extremely structured. We have a wide range of activities planned for afternoons and evenings for students to choose from as part of the community life of the program. Students are expected to adhere to the outlined schedule, **regardless of how it may differ from life at home, for the safety and well-being of all students**.

Activity Periods

During each activity period, residential staff offer a variety of options from which students choose to participate. From athletics to academics to fine arts, these opportunities give kids a chance to do something they love or try something new, and to take a well-deserved break from class. They also provide a great time to meet other kids in the program from different courses and wings as the community learns more about one another. All activities are supervised and vary each day and each period. Some are held in or near the residence hall, while others take place at the NIRSA award-winning CU Boulder Recreational Center, such as dance, yoga, jogging, racquetball, basketball, indoor soccer, and limited visits as possible to the pool and climbing wall. Finally, due to our proximity to the foothills, activities may also take place in the near vicinity at parks or on marked hiking paths.

CBK GLOW:

Gaining Leadership, Obtaining Wisdom

A transitional program between CBK SHINE and The Luminary Project, **CBK GLOW** is for 5th-8th graders. These participants attend a two-week residential experience held on campus and focus on one course of study for **five hours a day** beginning with an introductory accelerated enrichment week that overlaps with SHINE to support differentiated foundational knowledge, then quickly evolves into intensive acceleration during week two. CBK GLOW serves to help students move from enrichment work to more intensive study with a dynamic group of high-interest peers. Residential life and programs promote friendships and social interaction with peers who also have high academic and creative interest. A rich weekend program is required.

STUDENTS: Students entering **grades 5-8** in fall 2022 or ages 10-14
DATES: Sunday, June 12—Saturday, June 25

MATH/SCIENCE ADMISSION (M/S)	**HUMANITIES ADMISSION (H)**
ACT or SAT Score Report	ACT or SAT Score Report

OR 90% or higher on a nationally normed test as eligible for WATS
or portfolio application

2022 GLOW Courses

The Storyteller's Process: Creative Writing Seminar (H)
Touring the Solar System: Intro to Astrophysics (M/S)
Digital Photography: Editing the World (H)
Launch, Learn, Repeat: Aerospace Engineering and Spacecraft Design (M/S)
Action! Developing Character Relationships on Stage (H)
Do We Live in a Simulation? Philosophy of Science and Ethics (S/H)

(denoted by (H)umanities, (M)ath, and/or (S)cience focus for eligibility)

2022 GLOW Courses

The Storyteller's Process: Creative Writing Seminar

Are you a good storyteller? What does it take to tell a good story? What makes a good story "work" when others don't? In this course, we will hone your skills as a storyteller, whether you're sharing a personal memory, telling a joke, or crafting an epic adventure. During week one, we will learn the major tools that good storytellers use to hook an audience's interest, weave together details of plot, character, and setting in an interesting way, and finish off with an ending that leaves people either laughing or pondering, or both. Week two we will dive deeper into specific writing tools and experiment with prompts and exercises designed to stretch creativity and develop each storyteller's process. We will play with the challenges and opportunities that structured and unstructured writing can create, and practice language precision. We will also introduce the element of review and meaningful revision, and use the college seminar-style community we have built as a tool to support and develop each story into its full potential. At the end of the course, each storyteller will have a portfolio of polished stories that represent the culmination of their process throughout the two weeks.

Jess Kern graduated from CU Boulder with a B.A. in History and Spanish Literature and from University of Chicago with an M.A. in Social Sciences, with research focused on the relationship between society and literature. She has been a classroom teacher for several years, and currently teaches social sciences and humanities at Vector Progressive School. As a long-time CBK returner, she is absolutely thrilled to be back at CBK this summer as an instructor.

Touring the Solar System: Intro to Astrophysics

How do planets stay in motion? How do stars burn so brightly, and what happens when they burn out? How do we look at galaxies millions of light years away? In this course, we will build up a fundamental understanding of astronomical objects in order to learn about how those objects evolve, and the techniques we use to study those processes. Then, we will discover the properties of light and waves, and how those properties help us understand things like stars and galaxies - and even how a microwave can teach us something about the history of the universe. And since space is full of strange spectacles, we'll examine unique phenomena like black holes, nebulae, and pulsars. Week two, we will learn about thermodynamic and nuclear processes, and what happens when stars go supernova. We will build and expand our knowledge of mechanics and orbits to talk about more complicated multi-body systems. Finally, we will extend our knowledge of electromagnetic waves to explore optics and photometry, and learn about the tools that modern astronomers use to make precise observations. The course will culminate with students designing observational tools and spectral measurements by adding depth to their solar system in figuring out how we will actually observe this new world you have astronomically constructed!

***MATERIALS**: You will need to bring your own laptop for sky exploration.*

Sadie Seddon-Stettler received her B.S. in Astronomy & Astrophysics and her B.A. in Physics from the University of Chicago. She has worked as a tutor for undergraduate physics at UChicago, and as a research assistant at UChicago and FermiLab. She plans to attend graduate school and further her research, which focuses primarily on high-energy particle physics and dark matter. Sadie looks forward to returning to the CBK family this summer and reaching for the stars!

Digital Photography: Editing the World

How do you take a good photo? What even counts as a "good" photo? What do professionals think about as they line up the shot they want to take? Together we'll explore the fundamentals of photography, such as framing, lighting, and how to include and exclude the elements you do and do not want in your final image. We'll also discuss the history of image-capturing, and how it differs but is related to image-making, looking at historical technologies such as the camera obscura, daguerreotype, and film photography. Once you've taken your photos, we'll bring them into the digital darkroom and learn how to edit them, giving them professional finishing touches such as correcting white-balance and lens-warp. In week two, we'll dive deeper into photography's place in the modern fine-arts world. Why take a photo instead of making a drawing or a painting? How do you tell a story with a single photo, or how would you tell that same story differently in five? We'll take the collaborating, creating, and editing even further, considering how to take different kinds of professional photos, and what you do differently when photographing people, objects, buildings, or events to put together a small sample professional photography portfolio to take home.

***MATERIALS**: $50 lab fee and you will need to bring a laptop to personally use with Darktable installed.*

Emaline Gotthoffer-duCharme is a professional artist and photographer who studied in the University of Colorado-Colorado Springs fine arts program. Her photography has been displayed as part of exhibitions both at the Heller Center for Arts & Humanities and at the Gallery for Contemporary Art. Having taken photos anywhere from 70ft below sea-level to 14,000 above it, she has a wide range of experience with different cameras and conditions, as well as different fields of photography. She is so happy to be back for another CBK summer!

2022 GLOW Courses

Launch, Learn, Repeat: Aerospace Engineering and Spacecraft Design

How do rockets put objects into space? How can we as humans safely travel to and stay in a place as unforgiving as the vacuum of space? Starting with how spacecraft achieve different orbits, we'll explore the challenges presented in engineering spacecraft, making them capable of supporting people, getting them to space, and going farther than ever before. We will do this through an engineering lens, diving into the engineering process and analyzing how to solve seemingly insurmountable problems through repeated designing, reviewing, refining, and testing. We will look at how this process has been applied in the real world, examining how technology has evolved from the Apollo program using the most powerful rocket to date with a Lunar Rendezvous to first put people on the moon to SpaceX using technology to propulsively and autonomously land two-story tall rocket boosters on barges in the middle of the ocean. We will then use this process to design, build, and test small-scale test articles of our own that can withstand a variety of harsh conditions, such as falls from great heights, substantial pressure differentials and extreme heat. The course will culminate with students designing and creating rockets capable of launching their own payloads!
***MATERIALS**: $75 lab fee.*

Ben Chapel is currently pursuing a B.S. in Engineering Physics as well a B.S. in Aerospace Engineering at the University of Colorado Boulder. After he graduates he hopes to either pursue a Ph.D in Physics or enter the Aerospace industry. Ben is particularly interested in rocketry, working as the Project Manager for the Liquid Engine Development team of the CU Sounding Rocket Laboratory Club. CBK has been a large part of Ben's life for many years and he is excited to return this summer.

Action! Developing Character Relationships on Stage

What goes into bringing a character to life on the stage or the screen? How do we go from an idea, to a set of characteristics and actions in a script, to finally a fully realized performance, with a personality and physical style recognizable by character? In this course, we'll explore what makes your favorite characters and portrayals tick, from page to stage. We'll approach the fundamental aspects of a character from the perspectives of both a writer and an actor, and consider traits both internal and external. We'll discuss background, personality, and setting, and how these can be used to create a motivation for our character. We'll then use these motivations to determine the actions our character takes, and how they are able (or unable) to deal with obstacles and conflict. Then, we'll study the physicality of people and animals, and figure out how to embody the traits which make up our characters. Finally, we'll put these characters together and perform a one-act show, with character qualities both improvised and defined by scripted choices, leading us to discover new interactions, relationships, and stories as we engage in performance.
***MATERIALS**: $30 lab fee.*

Aaron Alper is currently completing a B.A. in Theatre Arts and Performance Studies from Brown University. He has experience and training in scripted and improvised performance, as well as directing, playwriting and dramaturgy. Aaron is excited to return to CBK this year!

Do We Live in a Simulation? Philosophy of Science and Ethics

Today's science and technology brings up vital questions it is important for all of us to reflect on and try to answer: Is science telling us what reality is or are we all in a computer-generated simulation? Will I be able to get a brain transplant one day, and what are the ethical implications? Should everyone have access to the latest technology in healthcare? Is it fair that a few tech people are mega-wealthy? What should a self-driving car do if its brakes fail? This course will ask and examine these and other questions that have a long history but an important new relevance for our time. We will experiment with scenarios, investigate what others have thought about these questions, and hold debates to discuss each side of an argument. We will also devise questionnaires and programs we can use to poll those around us to see what people in general think. Students will come away with an understanding of ethical and philosophical questions that arise from today's world and today's technology together with their own thoughts on what answers to these questions may look like.

Mark Hopkins received his B.A. in Philosophy from the University of Wales, Swansea. He spent a career designing and building software solutions for the travel industry before switching to education, more recently teaching in schools in Denver and Aurora. He is also a founding member of the Denver Philosophy Book Club that meets bimonthly. He is excited to be on "this side of the desk" at CBK this year!

GLOW Program Format

Student Housing and Supervision

Students will be housed in a smaller traditional residence hall, which is locked at all times to outsiders. We are the only program in this building during the summer. Students live in wings of no more than 14 participants per Residential Assistant. Students live in nicely-sized rooms with two XL twin beds. The shared floor bathroom offers private showers. Students will be assigned a roommate approximately the same age or they may make specific roommate requests—**both students must request one another** on their acceptance forms. Roommate requests cannot be guaranteed to be filled and roommates are not reassigned. Siblings will not be placed on the same wing as we are able. In this program, students are escorted to all activities and are not unsupervised at any time. Residential Assistants are thoroughly screened and selected for their ability to relate to students of this age and participate in a rigorous pre-program training that includes other campus personnel who are present throughout the program to ensure student safety. Access to e-mail and phone calls will be available on a very limited basis in order to prevent intensified homesickness. Students may not bring computers (unless checked in to their course), cell phones, or any transmitting devices. **Kids will do laundry only once** during this program due to time constraints. Students are required to live on campus and to participate in both the academic and residential life of the program. This may mean that students will miss sports practices or other extracurricular commitments. CBK is unable to accommodate competitions, performances, physical training regimens or lessons schedules. CBK operates as a closed campus and visitors are not allowed at any time during the program for student safety.

Daily Schedule

7:30am-9:30am	Breakfast and Morning Wing Time
9:30am-11:30am	Morning Instruction
11:30am-12:30pm	Lunch
12:30pm-2:30pm	Afternoon Instruction
2:30pm-4:30pm	Afternoon Activities
4:30pm-5:45pm	Evening Instruction
5:45pm-6:30pm	Dinner
6:30pm-8:00pm	Evening Activities
8:00pm-8:30pm	Wing Meetings
8:30pm-9:00pm	Night Activity
9:00pm-10:00pm	Quiet Time on Wings
10:00 pm	Lights Out

The schedule for this program is extremely structured. We have a wide range of activities planned for afternoons and evenings for students to choose from as part of the community life of the program. Students are expected to adhere to the outlined schedule, **regardless of how it may differ from life at home, for the safety and well-being of all students**. A full residential weekend program and off-campus local group activity is part of this experience.

Activity Periods

During each activity period, residential staff offer a variety of options from which students choose to participate. From athletics to academics to fine arts, these opportunities give kids a chance to do something they love or try something new, and to take a well-deserved break from class. Down time is built into the schedule due to program intensity. The weekend is a required experience critical to socio-emotional growth. All activities are supervised and vary each day and each period. Some are held in or near the residence hall, while others take place at the NIRSA award-winning CU Boulder Recreational Center, such as dance, yoga, cross-training, jogging, basketball, indoor soccer, swimming, and limited visits as possible to the climbing wall. Finally, due to our proximity to the foothills, activities may also take place in the near vicinity at parks or on marked hiking paths.

The CBK Luminary Project

The Luminary Project is a three-week residential program held on campus for mature 8th-12th graders. Students focus on one intensive course of study for **six hours a day that is an equivalent to one full year of honors level high school content or one semester of college content**. Many schools consider these courses for high school credit, although CBK cannot guarantee this transfer. As much as students think hard in the accelerated courses, they play hard in this deepened residential experience. Many students find that life-long friends are made during this program, and full required community weekend activities and trips are part of an energetic, structured residence life program. Our students describe this program as "transformational."

STUDENTS: Students entering **grades 8-12** in fall 2022 or ages 13-17.
DATES: Sunday, July 3—Saturday, July 23

MATH/SCIENCE ADMISSION (M/S)	HUMANITIES ADMISSION (H)
SAT-M 540	SAT-R 26 or EBRW 530
ACT-M or S 20	ACT-R or E 20

or portfolio application

2022 Luminary Project Courses

Tricking a Rock into Thinking: The Physics of Computing (M/S)
Androids, Aliens, and Atomic Engines: Reading and Writing Science Fiction (H)
Professional Photography: Before and After the Shutter Clicks (H)
Monsters in the Cosmos: Pushing the Boundaries of Modern Astrophysics (M/S)
Building Believable Physics in 2D Video Games: Simulation and Cohesive Design (M/S)
Adventures in Reality: Philosophy and Ethics in Our Tech World (S/H)

(denoted by (H)umanities, (M)ath, and/or (S)cience focus for eligibility)

Tricking a Rock into Thinking: The Physics of Computing

The invention of the transistor marked a turning point in our computational advancements. Suddenly, the shrinking size of a computing machine made it more accessible to the masses and allowed for electronics to dominate all aspects of life. From the simplest of integrated circuits to the complex lithography that underlies modern processors, this course will examine the physical underpinnings of these systems and how they enable the modern machinery that powers the world. This course will examine content ranging from how silicon is doped to produce nanoscale transistors and the underlying physical models of electrons and the fields they produce via Maxwell's equations to how programming languages are translated to purely physical processes. Additionally, we will look to the future on CPU advancement, including how Machine Learning chips differ from standard computational hardware, the complexities in building 3D NAND, and the rise of quantum computing resulting in the end of many encryption standards. We will also examine the impact of cheap computing on world society and the cultural shifts that have come of that. Students will explore the fundamentals of electricity and magnetism, optics, and circuitry to gain an intuitive understanding of the complex process of designing and constructing computers from first principles.
PREREQUISITE: **Geometry is required** and trig is recommended.

Zachary Boerner received his B.S. in Engineering Physics from the Colorado School of Mines and has since worked for various software engineering companies and in digital security. He currently lives in Silicon Valley and works as a cofounder at a startup working on making tabletop gaming more accessible. He is back for yet another summer with his CBK family!

Androids, Aliens, and Atomic Engines: Reading and Writing Science Fiction

What if a planet with two suns protected by solar-powered robots goes dark for only one night a decade? What if an alien race offered to give technology and power to any country that would trade half its citizens? What if the human race discovered a way to travel through wormholes? Questions like these make up the foundation of science fiction, a vast and powerful genre being developed all over the world for over a century. We will analyze the ways sci-fi creators manipulate the details of reality to question, criticize, and explore ideas that could not or cannot be addressed directly due to political or societal pressures. Manipulating reality also allows authors from diverse backgrounds to reimagine futures or pasts when dynamics of power and identity function differently. Students will be reading and writing throughout the entire course, analyzing excerpts and short stories from published science fiction and then exploring parallel ideas and practicing similar techniques in their own craft. Using a survey of pieces in this diverse genre, students will gain an understanding of just some of the possibilities that deliberate alterations of reality can generate in writing science fiction. By the end of the course, students will have produced their own unique works of science fiction.

Jess Kern graduated from CU Boulder with a B.A. in History and Spanish Literature and from University of Chicago with an M.A. in Social Sciences, with research focused on the relationship between society and literature. She has been a classroom teacher for several years, and currently teaches social sciences and humanities at Vector Progressive School. As a long-time CBK returner, she is absolutely thrilled to be back at CBK this summer.

Professional Photography: Before and After the Shutter Clicks

Digital photography is more than just knowing how to handle your camera - there's a lot to consider both before and after the shutter clicks. Together we'll explore how and why cameras have been used over the last couple centuries. We will investigate how we got to this point in photography technology, going all the way from Nicephore Niepce's silver-chloride camera obscura to the first film cameras to devices that start looking like the cameras we're familiar with today. Using these modern image-capturing machines, we'll develop an awareness of the picture plane - how to see the scene before as it will appear as an image rather than as the 3D world before you. At the same time, we'll learn to master skills such as framing, lighting, distance, angling, action lines, implied motion, focal points, visual tension, and shot composition. We won't just be discussing how to take a photo, we also need to know what we're taking photos of and why we're even taking a photo in the first place. What changes when you're taking a photo for your own scrapbook, for a professional event, or for the white walls of a contemporary gallery? Why would you choose photography instead of drawing or painting? What different choices do you make when photographing a place instead of an object or a person? With all these considerations made, we'll take our powerful pictures into the digital darkroom and learn how to correct things like white-balance, lens warp, vignetting, chromatic aberration and more. By the end, you'll have built up both a professional portfolio of individual and collaborative artworks, and develop the skills to expand that portfolio on your own artistic journey.
***MATERIALS**: You must provide your own digital camera and laptop with Darktable installed (lower-priced cameras can be found for about $50, in lieu of a lab fee for this course).*

Emaline Gotthoffer-duCharme is a professional artist and photographer who studied in the University of Colorado-Colorado Springs fine arts program. Her photography has been displayed as part of exhibitions both at the Heller Center for Arts & Humanities and at the Gallery for Contemporary Art. Having taken photos anywhere from 70ft below sea-level to 14,000 above it, she has a wide range of experience with different cameras and conditions, as well as different fields of photography.

2022 Luminary Project Courses

Monsters in the Cosmos: Pushing the Boundaries of Modern Astrophysics

What do astrophysicists search for in the night sky? What tools are they using to look? What do they do with the data they find? In this course, we'll learn how modern astrophysicists work to answer big questions about our universe - what do the origin and future of the universe look like, and what are the limits of our current cosmological models? We will delve into what a universe is made of and how it is structured, and consider why seemingly simple measurements can pose a significant challenge. We'll start with an exploration of mechanics and astronomical objects, from grains of interstellar dust to galactic structure. We'll explore electromagnetism and radiative processes to talk about how information from those objects reaches us. We'll learn about the equations of state and nuclear processes that govern stellar evolution, and how supernovae can be used as measurement tools. Finally, we'll explore current areas of research - cosmology, the large-scale structure of the universe, dark matter, and dark energy. Students will also learn about optics, photometry, spectrometry, and image analysis, and the course will culminate in students working with an observatory to take their own astronomical images!
PREREQUISITE: This course requires some advanced mathematics ability. **Algebra 2 is required** and pre-calc is recommended.
MATERIALS*: You will need to bring your own laptop with USB capability for sky exploration, image display, and astronomical analysis.*

Sadie Seddon-Stettler received her B.S. in Astronomy & Astrophysics and her B.A. in Physics from the University of Chicago. She has worked as a tutor for undergraduate physics at UChicago, and as a research assistant at UChicago and FermiLab. She plans to attend graduate school and further her research, which focuses primarily on high-energy particle physics and dark matter. Sadie looks forward to returning to the CBK family this summer and reaching for the stars!

Building Believable Physics in 2D Video Games: Simulation and Cohesive Design

One of the core elements of creating a game is believability - making the game "feel right" rather than trying to perfectly simulate our world. A critical element to make things feel "real" is physics, with the ways that objects move and interact contributing significantly to the feel of a game. In this course, we'll dive into the elements of creating physical believability. Although a perfect recreation of our world is not always the right choice, we will learn how we can use physics such as kinematics, forces, and collisions to understand where and how inclusion or exclusion of those behaviors can enhance our physics engine. To create these games, we will learn good programming practices using Python and Pygame, with an emphasis on reuse of code and iterative design to ensure we can tweak parameters effectively. In addition to our focus on physical simulation, we'll also investigate the metaphysics of our games, looking for ways to make them believable when they aren't realistic or perhaps even in spite of their lack of realism. To bring it all together, we will discuss elements of good game design, analyzing the user experience of our and others' games to determine what makes them fun. All of these elements will serve to answer our fundamental question: how do we make our games meaningful?
PREREQUISITE: Algebra and experience with programming are recommended.
MATERIALS*: You will need to bring your own laptop with the ability to install software. Please be sure your computer is not school locked and unusable. If you use a Chromebook, ensure that you can turn on Linux in your settings. Checking that you can install Python 3.7 or later is a good test of suitability.*

Ben Sattelberg received his B.S. and M.S. in Applied and Computational Mathematics from the Colorado School of Mines. He is currently finishing a Ph.D. in Computer Science at Colorado State University and teaching computer science at Vector Progressive School. His research focuses on developing mathematical understanding of neural networks. Ben has been involved with CBK for many years in a variety of positions, and loves coming back to the CBK family every summer.

Adventures in Reality: Philosophy and Ethics in Our Tech World

Martin Heidegger thinks we are "chained" to technology, even if we deny it - why does he think that? Nick Bostrom thinks it's very likely that our "reality" is really a simulation - how come? Jason Millar thinks consumers should decide how to program ethics into autonomous vehicles - what do you think? Our modern world of science and technology brings with it many philosophical conundrums and ethical challenges like these. Could we one day build a brain? A person? Would that person think and feel pain? Could we transplant a brain? If we could, should we? Or are mind and matter different substances (Rene Descartes and most Americans think so - do you)? Is reality very different from the way we perceive it (George Berkeley and Donald Hoffman think so - really)? Many of these questions have roots in philosophical problems that have been posed and pondered for centuries. This course will examine such questions, investigate their origins and what answers thinkers have proposed, and look at how they apply to today's technological world. At the same time, we will gather and discuss our own thoughts and opinions and try to discern solutions to these metaphysical and ethical questions and dilemmas. Students will come away with an understanding of philosophical and moral theories that are especially relevant in our technology-driven world, and will devise proposals to advise policy makers and help them come to the best decisions regarding the future of scientific applications.

Mark Hopkins received his B.A. in Philosophy from the University of Wales, Swansea. He spent a career designing and building software solutions for the travel industry before switching to education, more recently teaching in schools in Denver and Aurora. He is also a founding member of the Denver Philosophy Book Club that meets bimonthly. He is excited to be on "this side of the desk" at CBK this year!

"I will take these experiences, memories, and all the incredible people I've met with me throughout my life. I cannot fathom where or who I would be without CBK. It has shaped me more than any other force in my life."

Luminary Project Format

Student Housing and Supervision

Students will be housed in a smaller traditional residence hall, which is locked at all times to outsiders. We are the only program in this building during the summer. Students live in wings of no more than 14 participants per Residential Assistant. Students live in nicely-sized rooms with two XL twin beds. The shared floor bathroom offers private showers. Students will be assigned a roommate approximately the same age or they may make specific roommate requests—**both students must request one another** on their acceptance forms. Roommate requests cannot be guaranteed to be filled and roommates are not reassigned. Siblings will not be placed on the same wing as we are able. In this program, students have more autonomy, but are still supervised. Residential Assistants are thoroughly screened and selected for their ability to relate to students of this age and participate in a rigorous pre-program training that includes other campus personnel who are present throughout the program to ensure student safety. Access to e-mail and phone calls will be available on a very limited basis in order to prevent intensified homesickness. Students may not bring computers (unless checked in to their course), cell phones, or any transmitting devices. **Laundry is scheduled only twice** during this program. Students are required to live on campus and to participate in both the academic and residential life of the program. This may mean that students will miss sports practices or other extracurricular commitments at home. CBK is unable to accommodate competitions, performances, physical training regimens or lessons schedules. CBK operates as a closed campus and visitors are not allowed at any time during the program for student safety. Weekends are a required critical part of the socio-emotional development of our community.

Daily Schedule

7:30am-9:00am	Breakfast and Morning Community Time
9:00am-11:30am	Morning Instruction
11:30am-12:30pm	Lunch
12:30pm-2:30pm	Afternoon Instruction
2:30pm-4:30pm	Afternoon Activities
4:30pm-5:45pm	Evening Instruction
5:45pm-6:30pm	Dinner
6:30pm-7:30pm	Down Time
7:30pm-9:00pm	Evening Activities
9:00pm-9:30pm	Wing Meetings
9:30pm-10:30pm	Quiet Time on Wings
10:30 pm	Lights Out

The schedule for this program is not as structured as younger students' programs. We have a wide range of activities planned for afternoons and evenings for students to choose from as part of the community life of the program. However, in this program, students will have more unstructured time to schedule as they choose. **Students are expected to adhere to the outlined schedule, regardless of how it may differ from life at home, for the safety and well-being of all students. Students are still held accountable for their whereabouts and personal responsibility at all times.** Two full residential weekend programs and an off-campus trip are included.

Activity Periods

During each activity period, residential staff offer a variety of options from which students choose to participate. From athletics to academics to fine arts, kids have a chance to do something they love or try something new and to take a well-deserved class break. Activities are supervised and vary each day and each period. Due to the intensity of Luminary Project, down time is built in to the schedule. Activities occur across campus, including at the NIRSA award-winning CU Boulder Recreational Center, such as dance, yoga, cross-training, jogging, basketball, indoor soccer, swimming, and limited visits to the climbing wall. Finally, due to our proximity to the foothills, activities may also take place in the near vicinity at parks or on marked hiking paths into the mountains.

Student Conduct

CBK Summer Programs maintain high expectations for student conduct. As residential programs, students live and learn together in collaborative, supportive, and safe environments both in and out of class. Students from all walks of life attend these programs, and **the CBK Programs Honor Code must be followed, regardless of higher levels of independence that students may be accustomed to at home** in order to ensure a safe experience for everyone. All participants are expected to treat students across programs, instructors and TAs, residential staff, program staff, and university employees and students with respect as representatives of CBK programs. Behavioral expectations and program rules are sent to families with acceptance packets. Applicants must sign the Honor Code after fully reviewing the form. Specific expectations are outlined for each program in the Welcome Packet, which is again reviewed during orientation. **Bullying, sexual harassment, teasing of a sexual nature or regarding sexuality or gender, curfew abuses or hall access violations, vandalism, physical or emotional violence including excessive horseplay or threats to self, and use of any controlled substances are grounds for immediate dismissal from the program without refund**. We pride ourselves on providing a safe environment, both physically and emotionally, in which our students thrive and to which they can feel comfortable returning. As a result, the majority of our students do come back to their second "family" each summer. Our behavioral expectations are in place to both protect our participants and to ensure an enjoyable stay on campus. These are zero tolerance policies due to program length and intensity. Should a student be dismissed from the program, the Executive Director of CBK will contact the student's family. Families are required to remove the child from campus or make arrangements to remove the child from campus within 6 hours. Parents must make immediate travel arrangements at their own expense. Program fees will not be refunded. If you have any questions, please contact CBK immediately.

"I didn't have to pretend to be someone else to have people like me—I am who I am and that's ok."

"I'm not just some nerd—I'm good at stuff I never thought I could do!"

"It's way easier than I thought to grow life long experiences with people."

"Everybody at CBK was a good friend— I felt so accepted by everyone right away."

"I learned there are people out in the world who want the same thing I do no matter how different we are."

Health Services

Although we may be able to schedule a visit to a local health clinic for acute diagnoses, most injuries and illnesses require transport to the emergency room. Personal **health insurance and COVID vaccination is required** for attendance at any program and the Medical Release Form in the acceptance packet must be completed. All medications, including all non-prescriptions such as pain relievers or vitamin supplements must be stored in the Residential Director's office. The only exceptions to this policy will be for emergency life-saving medications such as epinephrine devices or insulin. CBK staff members will not administer medications (they will be monitored), except in the event of a life-saving emergency. Transportation costs to clinics and/or hospitals are the responsibility of the family—CBK attempts to use the least expensive transportation mode. **Campus health service is not available**. Mental health crises may require transportation to and evaluation by hospital staff at the discretion of CBK.

Homework and Attendance

Because of the intensity of the academic portion of the program, and because we stress the importance of residential activities, **extensive homework will not be assigned** to students in the summer programs. Students in GLOW and Luminary may be assigned short readings or practice problems for the evening, but the expectation is that students fully participate in playing hard after class as much as thinking hard during class. Both of the older students' programs also include an evening class period during which the majority of extended work should be completed. Students unable to keep up with the course pace during the day should speak with their instructors immediately so that we can help them to be successful. **Participation is required for the duration of the program**. Non-participation may result in dismissal. Because sharing activities and responsibilities with classmates is such an important part of the experience, families should not plan to visit or pick up their child for other activities during the program. For the security of your children, **such arrangements may only be considered *at least* two weeks in advance of the program or in an emergency** with the Executive Director. We hope that families will encourage the self-confidence that comes with independence and the self-esteem that comes from interacting with peers for the entirety of the program.

Student Evaluation and Credit Equivalency

Instructors use a variety of assessment techniques, including observation, project-based evaluation, rubrics, and pre-assessments throughout the programs. Skills are assessed, but there are no grades or point scales for SHINE or GLOW Programs. Luminary Project participants will be assigned a grade for the purpose of transfer. Due to the rigor and acceleration of courses in comparison to traditional environments, no grade lower than a B– will be assigned. A grade of P indicates that the student participated but will not be eligible for credit. Students should talk to their guidance counselors in advance of the program to determine whether a course will be considered for equivalency. On the final Saturday of each program, students individually participate in a **Celebration of Learning** to share their achievements in class with their families. This presentation is followed by a mandatory **Closing Ceremony** at which students are recognized for their accomplishments and participation. **Plan to attend.**

Instructors

Summer Program courses are typically taught by outstanding secondary teachers, college and university faculty/ instructors, content experts, and advanced graduate students. Instructors participate in a thorough application and interview process, and are selected based on their knowledge of the subject area as well as their ability to work with students. We hold our instructors to the expectation that they will provide a challenging, inquiry-driven, and enjoyable educational experience for all students. Brief bios are available by program.

Tuition and Fees

CBK Summer Programs tuition is comparable to other programs offering the same type of residential experience. Hourly rates reduce to $16/hour *not including the cost of overnight and weekend supervision*. Tuition covers campus room and board and facilities charges (the majority of tuition goes to CU Boulder), staff salaries/housing, planning and evaluation for the courses, publications, textbooks, course and program materials, program shirt, and residential events and trips. Additional student expenses not covered in tuition include a **lab fee** for materials-based courses, and may include souvenirs from the campus bookstore, snacks, laundry, or other *optional* activities.

All payments must be made online.

Lab fees are paid upon course assignment. Discounts are applied at initial application only.

Application Fee

All applicants must submit a nonrefundable $50 application fee. This fee is not applied to program tuition. Applications not including this fee (***even when seeking aid***) will be canceled.

Regular COMPLETED application deadline is MARCH 31.

Tuition Deposit

A **50% tuition deposit is due with the application before March 31**. This deposit is applied directly toward tuition and is rarely refunded. If applying for financial aid, the tuition deposit is waived and any monies remaining due following the award must be paid by May 1. All applications after March 31 must include full payment.

Refund Policy

The $50 application fee will not be refunded for any reason.

The 50% tuition deposit is refunded only if:

1) a student is not accepted to the program
2) a student cannot be placed in any of the three listed course choices and declines a 4th choice phone offer
3) a student **withdraws in writing before 4pm, May 1st** (a 10% fee is assessed with all withdrawals)
4) a family applies for financial aid and does not receive a sufficient award

Students who must withdraw during a program due to hospitalization or the death of a parent, guardian, or sibling will receive a **prorated refund not to exceed 50%** of program fees paid, less the deposit and a 10% fee. **If a student withdraws for any other reason after the first day of the program has started, or if a student is dismissed from the program, no monies will be refunded**. Refunds take 2-4 weeks to process.

Tuition Pricing

Please note that applications are queued by a date and time stamp for course placement. This stamp does not occur until the application is **COMPLETE**, meaning application fee, 50% tuition, ***submitted*** application, and both letters of recommendation have been submitted. Students with an outstanding balance at deadline may have their applications canceled. Total tuition for each program is:

TUITION ONLY: SHINE $1980 GLOW $3380 Luminary $4580 PLUS application, late, and/or lab fees

Residential Damage Fees

CBK will maintain a $150 security deposit for any incidental fees for each student attending programs. Damage fees will be invoiced to families within 10 days following each program. Fees are heavily documented and indisputable. Damages beyond $300 will be reported as vandalism to Campus Security for investigation and collections. M*ost common sample fees include late or lost library book fees, lost or missing Buff Card fees, double-paid meals due to forgotten Buff Cards, medications following a doctor visit, or lockouts.* **Any remaining security deposit will be refunded 2-4 weeks following each program.**

Late Fees and Deadlines

Late applications will be accepted with an additional **$100 fee if RECEIVED** no later than:

SHINE May 1; GLOW MAY 1; Luminary MAY 15. Late applicants cannot be considered for financial aid.

FULL PAYMENT of all tuition and fees is due WITH late application or an additional $100 fee will apply.

Please note that applications are queued by a date and time stamp for course placement. This stamp does not occur until the application is **COMPLETE**, meaning application fee, 50% tuition, submitted application, and both letters of recommendation have been submitted. Classes do fill on the very first day of registration. **APPLY EARLY**

PROGRAM	Application Fee (Nonrefundable and in addition to tuition) Application Deadline: MARCH 31	50% Tuition Deposit Due MARCH 31 App is incomplete w/o deposit	Last Day to Apply in Late Window $100 Late fee applies after March 31	Tuition Balance Due by May 1 $100 Late Fee on any unpaid balance	Total Regular Tuition
SHINE	$50	$990	MAY 1	$990	$1980
GLOW	$50	$1690	MAY 1	$1690	$3380
Luminary Project	$50	$2290	MAY 15	$2290	$4580

Air Travel, COVID Policies, and Vaccination

- **Students are not permitted to travel by commercial flight during the three days prior to Opening Day due to its high-risk nature;** students must arrive in Colorado by Wednesday night before check-in or travel by private vehicle. Upon request, CBK will arrange airport shuttle service for flights departing before noon on Closing Day. The fee for this service is $60, due upon acceptance to the program. Students must be comfortable navigating the airport alone as CBK staff are unavailable to travel to the airport with students.
- CBK has lifted quarantine requirements, but **families will agree their kids did not participate in other residential or day camps at least three days prior to the CBK program**. Indoor masking is still required and families will need to consent to COVID testing for their students at registration and during the program.
- **All CBK Summer Students and Staff must be fully vaccinated for COVID-19** and proof of vaccination must be uploaded with application. Please contact CBK with any questions about this policy.
- **No monies will be refunded if families do not abide by these policies. Thank you for your understanding.**

Financial Aid and Merit Scholarships

CBK offers limited **financial aid awards** to applicants demonstrating significant economic need. This aid ranges from partial tuition to smaller awards. Awards are determined by committee using a scale based on financial need and family circumstances. It is also our recommendation that you seek out sources of support in your community. Please note that the *average* annual income of the last several years' award groups was $32,000. To be considered, please complete the **Financial Aid and Merit Scholarship Application,** most recent IRS tax return form and W-2 forms, and Statement of Need detailing extenuating circumstances during the current year.

A limited number of competitive **merit scholarships** are also available. Awards typically range from $50 to $300. To be considered, please complete the **Financial Aid and/or Merit Scholarship Application.**

COMPLETED APPLICATION DEADLINE for consideration is March 15th—NO EXCEPTIONS.

All **award notifications will occur by April 11th.** Additional expenses, such as the application fee and damage fees, lab fees, purchases on weekend trips, snacks, or other student choices are not covered by CBK.

Financial Aid applications must still include the $50 Application Fee to be processed.

CBK is able to set up payment plans upon request but final payments must be received one week before program start.

Application Process and Policies

Summer Programs Applications are evaluated as they are received on a rolling basis. **Apply early since classes fill very quickly.** Course choice equity is determined by time stamp for priority and time stamp will occur once the application is fully complete (application submitted, tuition deposit/application fee paid, both letters of recommendation received). If a student's first choice class is full, he or she will be put on the waiting list, and then assigned to the second choice or third choice. Waitlisted students sometimes get into their first choices. **It is important that students list only those courses in which they would accept enrollment.** If all class choices listed on the application are full, a phone call will be placed to the applicant to discuss options. **APPLY EARLY**

DO NOT BEGIN YOUR ONLINE APPLICATION UNTIL YOU HAVE ALL REQUIRED PIECES UPLOADED AS FILES

REGULAR COMPLETED APPLICATION DEADLINE IS MARCH 31

SUMMER ACCOUNT ACCESS **Every family will need to create a new summer account for security.** Application (including portfolio documents), payments, and acceptance forms will all be submitted through your summer account—**letters of recommendation for new students may be submitted online early!** Lab fees are paid after courses are assigned. Acceptance forms must be completed no later than **MAY 1st**, or a $100 late fee for processing will be assessed. These will show in your online account after your application is processed.

WELCOME EMAILS will be sent **as classes fill beginning in late February**. Please do not call CBK to check on course assignment status. This email will include **class assignment** and critical opening day information, maps, and directions. **Roommate assignments** will go out by email approximately one week prior to your arrival. **Roommate requests** must be made after acceptance using acceptance forms—we will not accept emailed requests.

APPLICATION CHECKLIST—have in hand before you apply

ALL STUDENTS

- ☐ 3 course choices and $50 nonrefundable application fee credit card
- ☐ 50% tuition deposit (waived if applying for Financial Aid by March 15)
- ☐ COVID vaccination card and prerequisite file (if applicable) to be uploaded as PDF, JPG, GIF, or PNG
- ☐ Financial Aid/Merit Application and supporting documents if applying **[must submit by March 15]**

Returning students are not required to provide proof of eligibility with the application.
Students aging up to the next program may be asked for additional score information or an interview.

FIRST-TIME APPLICANTS ALSO NEED:

- ☐ Copy of Talent Search score report (SAT, ACT, or WATS eligibility) from WATS or any other Talent Search
  OR Portfolio Admission Application responses and all supporting documents
- ☐ New student essay saved as PDF (see website for essay prompt)
- ☐ 2 recommendations completed by education professionals who can speak to program fit for your student **submitted on the CBK Summer Recommendations site. These may be submitted in advance.**

Portfolio Admission Process

CBK offers alternate application by portfolio for students who do not have the necessary test scores through a Talent Search. All required materials for the Portfolio Admission Application must be uploaded with the full Summer Programs Application before portfolio admission candidates will be considered. Portfolio applications will be included in the same course placement process according to date/time stamp of completed submission. **See requirements for materials submission on our website**. The portfolio review process, which takes a bit longer than the score review process, will not affect admission to specific courses that may fill quickly. **Early application is highly recommended as courses do fill in one day**. Students are encouraged to participate in the Western Academic Talent Search to achieve qualifying scores for future summers.

Special Incentives

EARLY BIRD PROMOTION any application **fully complete by Feb 15th** will be issued a discount of $50.
CU BOULDER FACULTY AND STAFF receive one additional $50 discount per application (shows on final balance).
MULTIPLE KIDS/MULTIPLE PROGRAMS members of the same family for summer 2022 receive one $100 discount per additional application after the first (shows on final balance).