

*Every one of my son's teachers shared that he was a confident public speaker, creative problem solver, and had a knack for respectfully facilitating conversations of groups that had very strong voices, so that everyone could share their thinking. In reflecting on what might have helped my son grow in this way, I made the connection that these are all opportunities afforded to him at TDI!*

—Parent



# TALENT DEVELOPMENT INSTITUTE

*Summer Camp meets Academic Institute*



**TWO WEEKS of In-Person  
TDI Summer Camp 2022!**

June 19-25, 2022 and/or  
June 26-July 2, 2022

**Northern Vermont University—Johnson  
Johnson, Vermont**

**For students entering grades 4-9**

**Overnight and Commuter Options**

**Leadership Program for teens entering grades 10-12**

**PLUS— 25 Years of TDI celebration on Saturday, June 25th!**

*The Talent Development Institute is under the umbrella of the Green Mountain Center for Gifted Education, a 501(c)(3) non-profit organization, with the mission of affirming, educating, and supporting Vermont's gifted and talented youth and their families. We welcome participants and staff of all colors, creeds, ethnicities, nationalities, orientations and socio-economic backgrounds.*



## TALENT DEVELOPMENT INSTITUTE TDI Summer Camp 2022

**Sunday, June 19 - Saturday, June 25, 2022 and/or  
Sunday, June 26 - Saturday, July 2, 2022**

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*“The friendships I formed as a TDI camper became my most valued relationships; in them, I have found support, companionship, and a sense of belonging.”*  
—staff (former camper) quote

We will be back on campus this summer! For each of the two weeks, we'll arrive on Sunday, get settled in, enjoy five days of strands (classes) and fun activities, have our beloved Talent Show, and finish with good-byes, for those heading home, on Saturday. Overnight campers attending both weeks will have the option of going home the Saturday night between sessions, and returning on Sunday. This year, to encourage participation in Saturday's **Celebrating 25 Years of TDI**, second week campers who have been to TDI on campus in previous years are invited to register to arrive right before lunch on Saturday, participate in the celebration, and spend the night.

We are confident that with necessary COVID-19 adaptations (and we will follow recommended protocols, including full vaccination requirements for all participants and staff), TDI participants will experience fun, stimulating, and challenging learning opportunities with dynamic faculty and intellectual peers. Students entering grades 4–9 will participate in week-long classes and daily exploratory activities. And, for overnight campers, there is an assortment of evening entertainment, activities, and exercise – including use of the athletic field, computer labs, the swimming pool, and much of the beautiful NVU campus.

### **TDI Features**

We have a great mix of strands this year, with something for a variety of types of learners and thinkers! New offerings include: Explorers of Gem Hollow, Case of the Green Ping Pong Ball, Simulating Chaos, Clowning Around, Gravity-Powered Catapults, Movie Making, TDI Puppet Show, Fake News and Propaganda, Model UN-der the Sea, Vaximake, and Discover BioPlastics. Some old favorites include Rube Goldberg Machines, Writing and Laughing, and Improvise! The variety of offerings between the two weeks allows for campers to thoroughly enjoy attending both weeks.

### **Celebrating 25 Years of TDI!**

The Talent Development Institute 2022 will include a celebration of our 25<sup>th</sup> anniversary. It's hard to imagine, but it's true! We hope you will join us for the special events planned for this exciting milestone.

While campers will be marking the occasion all during the week(s) they are with us, a special program is planned for Saturday, June 25th.

The day will begin with the usual sequence of events for parents, including visits to their child(ren)'s classes and a brief sit-down program to close out the first week's activities. Special celebratory activities will follow the usual Saturday program, with the scheduled events ending at 3:00 pm. We invite you to stay for lunch (on us), including an anniversary cake!

Following lunch, we will dedicate a new permanent reminder of TDI's presence on NVU-Johnson's campus. You'll have to be there to see what gift we are giving to the university! The afternoon will end with a program recalling the history of TDI in the form of slide shows, alumni TED talks, and more – depending on what the kids in the Celebration strand create!

We certainly hope you can join in on the festivities. Please indicate your intentions on the camper registration form.

## Leadership Program

A big part of the TDI community is the Leadership Program, for students entering grades 10-12 who have previously been TDI participants. This program will again span three years. The first year participants will be part camper/part leader. They will meet for Leadership activities in the mornings, and will choose from classes for campers in the afternoons. This year there will also be a two-year accelerated option for those in grades 11 or 12 who have missed out the last couple of years because of the pandemic. For more information, contact [lucy@tdivermont.org](mailto:lucy@tdivermont.org).

## The Program

TDI may be experienced as a commuter or as an overnight camper. Students engage in a variety of unique strands (classes) that nurture the students' common love of learning. Staff at TDI are skilled at fostering students' current passions and sparking their interest in new passions.

While we strive to give students the academic challenge and stimulation they crave, ***we are not an intense academic program.*** We encourage hands-on, creative, and meaningful learning. At the same time, our accepting environment offers a multitude of opportunities for fun and friendship.

Overnight campers are supervised by Institute staff, with housing in the college dormitories. We are not sure yet whether overnight campers will be required to sleep in single dorm rooms (rather than the usual doubles or triples) in order to limit opportunities for the spread of COVID-19. Dinner will start at 5:30 each evening, followed by evening activities at 6:30 p.m.

Overnight campers should arrive between 2 and 4 pm on June 19th and/or June 26th. Dinner will be provided each Sunday. For those alum campers who have registered for Week 2 only, there is an option this year to register to arrive on Saturday—you'd check in at 11:45 am at Governors Dorm on Saturday the 25th, join in the 25 Years of TDI celebration, and spend the night with those from Week One who are also spending the night.

Check-in for commuters will begin in Bentley Hall at 8:00 each Monday morning (and daily after that) with a brief opening session for everyone at 8:15, and classes starting at 8:30. Lunch is provided Monday through Friday for all participants (including commuters) at 11:45. After lunch and a short "Siesta" rest time, the two afternoon classes begin at 1 pm. During our break at 2:30 we will have our daily meeting and sign up for a guided Exploratory class that will meet after our last class period, from 4:30-5:30 in the afternoon.

***Commuter pick-up is at 5:30 p.m. each weekday.***

Students will be assigned to week-long strands based on the choices sent in with their online registration forms. These strands run from Monday through Friday. Campers will be joined by their parents on Saturday morning for our parent program, and hopefully stay for lunch and the afternoon "25 Years Celebration!"

Special Note: For overnight participants, the Talent Show will be held each Friday evening; please be sure to bring your instruments, costumes, magic tricks, or whatever else you might need if you choose to participate.

## The Location

Nestled on a hill in the heart of the Green Mountains, Northern Vermont University (formerly Johnson State College) campus offers a spectacular natural environment, along with modern educational facilities. The Institute is held in classrooms, lecture halls, computer laboratories, dorms, and cafeteria on campus. We also have set times that we have exclusive use of the college pool at the Shape Facility. The campus is beautiful, small and manageable, with up-to-date facilities—an ideal setting for TDI.

The address for Northern Vermont University—

Johnson is **337 College Hill Road, Johnson, Vermont, 05656**. The campus is just off Vermont Route 15 in Johnson. North and south routes take Interstate 89 to exit 10. Head north on Vermont Route 100 approximately 18 miles until it merges with Route 15 in Morrisville. Head west on Route 15 approximately 8 miles to Johnson. Watch for signs on the right directing you to the campus and Governors Dorm.





## The Faculty

TDI is staffed partly by experienced Vermont educators, some with Master's degrees in educating the gifted; partly by experts in their fields; and partly by Institute alumni. Strands have a very low student-to-teacher ratio, averaging 10 to 12 students per strand. Some strands will have even fewer, depending on the size of the classroom's capacity.

## Questions and Further Information

Please contact TDI Co-Director, Lucy Gage Bogue, at [lucy@tdivermont.org](mailto:lucy@tdivermont.org) with questions and requests. Student strands fill quickly; each strand is filled (for the most part) on a first-come, first-served basis.



## YOU CAN HELP US REACH FAMILIES IN NEED OF TDI BY SHARING THIS BROCHURE:

- WITH OTHER FAMILIES WHO MIGHT BENEFIT,
- ON YOUR FACEBOOK PAGE
- WITH YOUR FRONT PORCH FORUM NETWORK, AND
- WITH YOUR CHILD'S SCHOOL, TO PUT IN THE SCHOOL NEWSLETTER.
- **PLEASE HAVE YOUR CHILD ENCOURAGE A FRIEND TO ATTEND TDI!**





# TALENT DEVELOPMENT INSTITUTE

## TDI Summer Camp 2022

### REGISTRATION INFORMATION

Registration is again online this year at [app.campdoc.com/register/tdi](http://app.campdoc.com/register/tdi).

Registration for both weeks of in-person TDI is due by June 1, 2022 (\$30 late fee applies after this date). This year we also have an Early Bird Discount if you register by April 1st, a discount for Week 2, and a further discount for the second week if registered for both weeks (see Camper Tuition Information on following page).

#### **All campers must fill out all information pertaining to:**

- Health and Personal Profile and Strand Choices, and sign all authorizations and waivers.
- Select the add-on of “the Saturday between sessions,” Saturday the 25th, if you want that option.
- In addition, students must scan and upload their most recent Vaccination/Booster Cards for COVID-19. Northern Vermont University requires full vaccination (to the extent an individual is eligible) against COVID-19 for everyone involved in a program on campus. We will consider medical exemptions on a case-by-case basis.

**Scholarship deadline is May 1, 2022 for either or both weeks of TDI.** We have a limited amount of partial scholarship money available, and encourage you to seek additional scholarship sources from your child’s school, your town, local community groups and/or businesses, and national organizations. Let us know if you have had success with this, so we can pass ideas on to other potential participants.

#### **At the time of registration, all students must pay the following:**

- If not applying for scholarship or payment plan, we require full payment by credit card or bank check
- If requesting scholarship, pay \$100 deposit for each TDI week, and you must upload the following:
  - letter requesting scholarship,
  - letter from child about why he/she wants to attend TDI, and
  - the first page of your family’s latest tax return, which shows your family’s income and lists your child as a dependent.

#### **A FIRST-TIME APPLICANT must upload the following 3 letters in order to be considered for the Institute:**

- a letter written by the participant describing how the TDI experience will benefit him or her; if you are applying for a scholarship, this could be the same as the scholarship letter.
- a letter from a teacher (and, if the child is home schooling, preferably from another adult working with the child) describing his/her ability to succeed in a stimulating and challenging learning environment. If this seems like it might take a while, upload everything else, and upload the teacher recommendation as soon as possible;
- a letter from a parent/guardian describing why he/she thinks the Talent Development Institute is a good match for the child; if you are applying for a scholarship, this letter could also be the one to explain your need for financial assistance.

**\*\*We do not require any formal testing as proof of giftedness; our process of asking the student, parent, and teacher for written narrative in support of a child’s participation has worked well for us for many years.**



## TDI 2022 Camper Tuition Information

The deadline for TDI registration is June 8, 2022, with a late fee of \$30 after June 1st. All tuition payments should be made during online registration ([app.campdoc.com/register/tdi](http://app.campdoc.com/register/tdi)) using credit card or bank check. There will be a limited number of partial scholarships, generally ranging from \$200-500, available to TDI participants. Requests for scholarships are due May 1, 2022, and require that you upload a letter of request which explains your family's need and why you want your child to come to TDI, as well a letter from your child explaining his/her motivation for coming to TDI. It is also a requirement that you scan and upload a copy of the first page of your latest tax return which shows your family's income, and that your child is a dependent.

\*\*\*Register before April 1st and get our Early Bird Discount! We are also offering Week 2 at a discounted price.

Description of Choices	Early Bird	Regular	Late
	before April 1st	April 1st- June 1	After June 1
<b>Overnight</b>			
Week One only (June 19-25, 2022)	1225	1250	1280
Week Two only (June 26-July 2, 2022) discounted	1205	1230	1260
Week Two Added to Week One (discounted further)	1185	1210	1240
Saturday Overnight Between Weeks (June 25) or early arrival for Week Two	125	135	145
<b>Commuter</b>			
Week One only (June 19-25, 2022)	820	845	875
Week Two only (June 26-July 2, 2022) discounted	800	825	855
Week Two Added to Week One (discounted further)	780	805	835

## **STRAND DESCRIPTIONS**

(Strand Grids are at the end of the brochure.)

### **TDI 2022 Morning Strands**

#### **Week One—June 19-25, 2022**

**Please pick 1st, 2nd, and 3rd choice of classes for each time period each week. Register online: [app.campdoc.com/register/tdi](http://app.campdoc.com/register/tdi) NOTE GRADE LEVELS FOR EACH CLASS.**

#### **Week One Camper Strands—8:30–10:00am**

##### TDI Puppet Show— Grades 4-10

*Alice Russell, Noam Hessler*

Come one, come all, and join us at the one and only TDI Puppet Show 2022! In this strand we will create our own puppet show, starting from scratch. We will use our arts and crafts skills to make puppets of many shapes and styles, our writing creativity to create a play, and our exceptional theatrical skills to perform!

##### Rube Goldberg Machines—Grades 4-10

*Will Frick, Camille Yarrow, Eliana Eckhaus*

You've seen them in videos and in cartoons, and maybe you've even tried to draw one before. Rube Goldberg machines are contraptions that do something very simple in a very complex way. And in this strand, we'll be making one. This is a highly hands-on activity; this strand is perfect for students with interests ranging from physics to engineering to cartooning. Be warned though, it gets intense!

##### Improvise!— Grades 4-10

*Jameson Hurd, Jack Barnhart*

Improvisation is the art of ad-libbing – theater without scripts, scenery, or forethought. Enthusiastic novices are invited to join in as we sharpen our dramatic reflexes with an assortment of favorite improvisational games. Have a blast acting on your toes!

##### Jigsaw World— Grades 4-10

*James Kalbfleisch, Sierra Makaris*

Have you ever dreamed of a world not our own? Of a different past or future, or maybe something completely new? In Jigsaw World you will learn how to get started. In this strand campers will learn about different aspects of building an epic fantasy/sci-fi world and then put it into practice, with a special twist. Campers will be put into different groups and will collaboratively build a world that is a perfect "starting point" to a story, or they'll try, for after the first day the groups will be shuffled and shall pick up where their peers have left off, making new things happen while being unable to change what others have written. In the end everyone

will be left with wonderful and whimsical worlds beyond their wildest dreams.

The Game of Civilization—Please Note: Grades 5-10  
*Colin Spencer, Amy Barnhart*

Have you ever wondered what it would be like to lead one of history's great nations to glory? Are you a fan of strategy games? In The Game of Civilization, you will take the helm of an historical civilization like the Romans, Aztec, Egyptians, and many more. Alone or in small groups, you will guide your nation through history. You will have to effectively manage resources, research new technologies, trade with other nations, explore new lands, and use diplomacy to excel. Along the way, you will learn about the historical significance of these great civilizations, the importance of major technological advancements, the purpose of the great wonders of the world, and more. Can you lead your civilization to glory, or will it descend into ruin?

Physics Through Discovery—Please Note: Grades 5-10  
*Isaac Mandell-Seaver, Calum McConnell*

From the simple motion of objects, to the behavior of electricity and magnetism, to the strange phenomenon experienced when moving near the speed of light, the past few centuries of physicists have truly discovered a great deal. But how? How did we get from dropping cannonballs from towers to the fabric of spacetime? In this strand, you will have the opportunity to play with these ideas for yourself, and see what it is like to really discover physics on your own.

3-D Modeling—Please Note: Grades 7-10

*Bill Pinney, Johannes Everse*

Have you ever wanted to make your own virtual world, see how special effects artists make movie scenes come alive, or make impossible 3D art. In this strand we'll be exploring the basics of 3D animation, by designing and building our own 3D environments and scenes. We'll explore modeling, lighting, materials, and so much more to bring our imagination to life!



### **Leadership Program—8:30–10:00 am**

Combined Leadership—All L1's, L2's and L3's  
*Nicole Dagesse, Ellen Koier, Susan Flint*

What is leadership? What are some of the benefits and drawbacks of being a Leader? Leadershippers of all three levels come together to explore these questions and more! Through fun activities and thoughtful discussions, you will also learn about group dynamics, problem-solving, and leadership confidence!

### **Week One Camper Strands—10:15-11:45 am**

Organic Pixel Art—Grades 4-10  
*Susan Flint, Lynne Jakubauskas*

Pixel art is a very popular form of art made with single squares of color, like in video games like Minecraft or Stardew Valley. In this strand, we'll be making pixel art in real life using cross stitch. It's super easy, and you don't have to be good at drawing to make pixel art. Design your own patterns and bring them to life using a needle and thread!

Build Your Own Dream Business—Grades 4-10  
*Camille Yarrow, Eliana Eckhaus*

If you've ever wanted to own or build your own business, this strand is for you! Explore what goes into designing a business and begin crafting your dream business plan. Work on a variety of projects to build your business, including designing a logo or writing a jingle. Explore details such as creating a menu (if you were building a restaurant), or work on ways to advertise to customers. Set up your business in any location you want, real or fantasy, and get ready to be your own boss!

Case of the Green Ping Pong Ball—Grades 4-10  
*Stephen Everse, Johannes Everse*

We have been asked to solve the Case of the Green Ping Pong Ball! We will search the NVU campus for clues, and use common approaches (fingerprinting and XX) and uncommon approaches (ink and shoe analysis) to determine the culprit!

Semi-Poetic Telephonetics—Grades 4-10  
*Amy Barnhart, Jack Barnhart*

Do you like poetry, improv games, creative writing, and laughing? In this strand we will play improvisational writing games that are spin-offs of games like telephone, taboo, and the famous TDI parlor game. We will laugh together as we create the strangest poems ever written and try to imitate styles of existing poets. If you like creativity and out of the box thinking or if you just want to learn a bit more about poetry then this is the strand for you.

Indiana Jones and the Temple of TDI—Please Note:  
Grades 5-10

*Sierra Makaris, James Kalbfleisch*

Greeks, Romans, Egyptians, and...who? Thousands of years ago, our ancestors left clues to the way they lived and what they did. In this class, you'll use what you know about actual ancient civilizations to design your own -- and even leave artifacts for your friends to find. Is this ancient rock a tool, a toy, or something else? Did these people ride elephants -- or dragons? You be the judge!

Discover Bioplastics—Please Note: Grades 6-10  
*Julie Legault, Alexis Hope*

You may have heard of "bioplastics": plastic-like materials made from non-petroleum sources, such as plant and animal matter. But what exactly are the ingredients in bioplastics? Do these materials actually have the potential to replace regular plastics? In this hands-on, experimental strand, you will learn about the material science behind bioplastics, how to make your own, and how to evaluate them for sustainability, impact, and everyday usefulness.

Electronic Extravaganza—Please Note: Grades 7-10  
*Calum McConnell, Colin Spencer*

Are you reading this on a computer? Have you ever wondered how that computer works, on the inside? In this strand we explore electronics: how they work, what they do, and how to use them. We will all work with real electronic components, including Arduino's, to build and program your own useful gadgets. No prior programming experience required!

### **Leadership Program—10:15-11:45 am**

Leadership One—All L1's  
*Nicole Dagesse, Lucy Bogue*

*Leadership One* will focus on "Who Am I as Person and a Learner?" Through fun activities and meaningful discussions, you will learn about the definitions and characteristics of giftedness, general personality types and learning styles, and how you relate to each of these topics. You will start the process of thinking about Exploratories and strands you may want to teach in future years.

Leadership Two—All L2's  
*Ellen Koier, Will Frick*

*Leadership Two* will focus on "Who Am I as a Teacher and a Leader?" Discussion focuses on the TDI learning environment and what makes it so special to all of us, as well as TDI leadership roles—including teaching. You will get hands-on experience with writing strand proposals for strands you may want to teach next year, and share your ideas with your peers.

Leadership Three—All L3's

Max Kriff, Mary Markley

Leadership Three will focus on “Who Am I in the Broader World?” What are your personal assets and challenges, your interests and talents, your self-expectations and goals, and your personal and societal responsibilities as you transition to being an adult in the wider world? Throughout the week, you will explore these topics through fun activities and discussions with your peers.



**TDI 2022 Afternoon Strands  
Week One—June 19-25, 2022**

Please pick 1st, 2nd, and 3rd choice of classes for each time period each week.

Register online: [app.campdoc.com/register/tdi](http://app.campdoc.com/register/tdi) NOTE GRADE LEVELS FOR EACH CLASS.

**Week One Strands— 1:00 – 2:30 pm**

Build Your Own Instrument!—Grades 4-10

Adowyn Byrne, Isaac Mandell Seaver

In this strand, you will build playable instruments from provided recycled materials. You will learn the basics of acoustics and music theory, and then create your own instrument, either based off an existing instrument or something entirely new! At the end of the week, we will attempt to have a jam session and make beautiful music together (attempt being the key word)!

Make It and Break It!—Grades 4-10

Jack Barnhart, Amy Barnhart, Jameson Hurd

You might know why bridges have rails or “trusses” on each side. But the real question is whether you can make your own... with only paper. In this hands-on strand you will learn how to build bridges and other various structures with limited materials. From egg drops to simulated hurricanes, your engineering intuition will be put to the test. If you enjoy building

things, and don't mind watching them get destroyed, then this is the strand for you!

ReWild—Grades 4-10

Nicole Dagesse, Gabe Nelson

Your inner-adventurer will take the lead as we explore the woods and wild around the NVU campus. Build shelters, learn about wild-edibles, play nature games, and dive into the magic and abundance of the forest. Choose between storytelling, poetry writing, and meditation as ways to express and experience the world around you. We'll celebrate the week by building a fire and sharing our stories.

Fake It 'Til You Make It—Please Note: Grades 5-10

Sierra Makaris, Noam Hessler

Calling all hucksters, flim-flammers, and bamboozlers! The up-and-coming world of late-night infomercials is calling, and those novelty golf clubs won't sell themselves. The TDI (Tremendous Deals Incorporated) Network wants Y-O-U! Come spend a week networking with other new hires, practicing your sales pitches, and moving merchandise no matter how ridiculous or unusable. Stretching the truth a little (or a lot) is all part of the process.

Start a Business for Fun and Profit—Please Note:

Grades 6-10

Will Bright

Have you ever wondered how to start a company that is capitalized via venture capital? In this strand, you will learn the basics of seed-stage management, founding team structure, pitch deck construction, and venture capital mechanics. With a team you will develop growth oriented business plans, create a fundable example of whatever product/service you and your team want to offer, and present a pitch deck at the end of the week.

Bare Metal Computing—Please Note: Grades 6-10

Charlie Wallich, Colin Spencer

Ever wonder \*why\* computers work? How we put lightning inside sand and tricked it into doing math problems? How each of those puzzle pieces fit together to make all the stuff you can do possible? In this strand we'll dig down deep into the nitty-gritty details of how and why modern computing works and how it came to be.

Vaximake—Please Note: Grades 6-10

Bill Pinney, Julie Legault

Vaccines and infectious disease play an important part in all of our lives: but how do they work, and more importantly how do we design and make new ones? In Vaximake, you'll play the part of a world-renowned disease expert racing to develop a treatment for a new disease outbreak. Along the way you'll learn about the various things that make us sick, how our bodies and immune systems respond to them, and how we design, test, and deploy new vaccines. Do you have what it takes to help save the world?



### **Leadership Strand Options—1:00-2:30 pm**

Leadership Proposal and Project Workshop—optional for all L's, mandatory for fast-track L1's  
*Ellen Koier, Carol Story, Alexis Hope*

Several things will be happening in this workshop. L1's who have chosen the fast track 2-year version of the Leadership Program, will work with Ellen on L2 content, including working on future strand development. What strands have you always dreamed about leading? Learn how to write a strand outline, strand proposal and brochure description of your dream strand. Others who want to work on proposals may be joining you.

Others who wish may work on projects, with guidance and feedback from TDI staff and fellow Leadershippers. You may work on a skit or Talent Show act; a TDI T-shirt design; a TDI Yearbook or Newspaper; a video about TDI, TDI Staff, or the Leadership Program; a blog entry or two for our [tdivermont.org](http://tdivermont.org) website; guidelines for a plan toward gender inclusion or cultural diversity at TDI; or something else? Each project ideally will be related to TDI, the Leadership Program, leadership in general, teaching at TDI, or at least to something in which you are very interested. It should be a meaty enough project to engage you for the whole week (or both weeks). The project may be geared for educating, entertaining, marketing, or fundraising, but there should be an end product to somehow share. It should be fun and meaningful for you, and, if it's useful for us and makes TDI a better place, all the better!

Leadership Current Issues Discussion Strand—optional for all L's

*Alice Russell, Max Kriff, Mary Markley*

In this strand we will discuss current topics that our society at large faces, with attention paid to developing critical thinking around our discussions. We will have articles and videos that cover issues surrounding the

environment, the United States history and how it reflects our current climate, and human rights globally. This strand aims to create an environment for open and honest discussion directed through readings and questions to prepare the Leadershippers for the greater world and the impact they can have in it. This strand will be participation heavy, and we invite anyone who signs up to reach out with topics they would especially like to cover, or with recommendations for articles or videos.

### **Week One Strands— 2:50 – 4:20 pm**

Create a Culture—Grades 4-10

*Alice Russell, Mary Markley*

In this artistic archaeology strand, campers will create ancient maps, languages, art, manuscripts, and more. We will learn about how the wonderful things humans make and leave behind can tell a story, and we will create a story of our own using our creativity in writing, drawing, and arts and crafts.

Gravity Powered Catapult—Grades 4-10

*Jameson Hurd, Johannes Everse*

You have one week, a 30 gram object, 100 feet to cover, and big pile of materials to make it happen! While the use of our Earth's gravity is required, prior knowledge and complicated math aren't. Just bring your wits, ingenuity and a readiness to try, fail, and try again! And ideally, make a small thing go very fast. Very. Very. Fast.

Data Bending—Grades 4-10

*Max Kriff, Will Frick*

Glitch art and computer science meet together in this strand where we pull files apart to find something beautiful. Write random words into software, listen to pictures and manipulate data into something bizarre. In this class you'll learn about how computer files work by breaking them.

Clowning Around!—Grades 4-10

*James Kalbfleisch, Susan Flint*

We all know about clowns, or at least think we do. But have you actually ever thought about being a clown? In this strand campers will each learn about a different kind of clown, work to build a clown persona, and build a humorous routine around that persona. You even get to make your own clown nose! You'll develop clown routines along side your fellow campers and have a unique, funny, full-fledged performance that you can even perform in the talent show.

Getting Active with Gabe—Grades 4-10

*Gabe Nelson, Camille Yarrow*

Would you like to learn how the body works, and get some exercise at the same time? In this activity-based strand, you will learn about biology and movement. If you like to get outside and run around, this strand is

perfect for you. We will focus on the anatomy and physiology of certain muscle groups each day, and then practice using them with strategy games and fun activities.

### 25 Years of TDI!—Grades 4-10

*Carol Story, Lucy Bogue*

TDI is celebrating its 25th anniversary this year! Do you want to learn about the history of TDI and help create some permanent mementos for our TDI archives? We hope you do! After we share a brief history of the program with you, together we will brainstorm ideas for products you can create, products which will reflect not only the reasons TDI was founded, but also why it continues to be very important to many campers, Leadershippers, staff, and alumni. Most of the week will be spent actually creating whatever products you decide to make. Examples of these products might be a slide show, a booklet, a TDI song, a collage, a skit, a video, or other ideas that capture and retain memories of good times at TDI. The products will be shared at the end of the week with various audiences and during the celebration event planned for June 25th, the Saturday between sessions.

### Plant CSI—

*Please Note: Grades 7-10*

*Stephen Everse, Eliana Eckhaus*

At TDI, fresh cantaloupe, honeydew melon, and watermelon are available breakfast through dinner – putting quite the strain on Northern Vermont University's melon supply! To counteract this, the cafeteria at NVU has a garden in which they grow their own melons, but someone removed all of the labels on their seedlings. Luckily for them, we have a group of campers who enjoy CSI and other crime dramas in which DNA technologies are used to solve cases like this. Therefore, they have asked us to use DNA isolation, PCR (polymerase chain reactions), gel electrophoresis, and DNA fingerprinting to help them identify what plant is what, so they don't over produce any single type of melon! If the study of genetics fascinates you, come join us for this fun investigation!



## **Leadership Strand Options— 2:50 – 4:20 pm**

### Unintended Consequences of Design—All L Levels

*Alexis Hope, Julie Legault*

Many people become engineers, designers, or technologists in order to change the world for the better. But technology as a tool for social change has a complex track record, filled with unintended consequences. This leadership strand uses the idea of values-driven design to guide students through a week-long design sprint to explore the unintended consequences of the technologies we create and use. Throughout this strand, students will learn about different ways to design technologies to meet the needs of real-world communities, and how to evaluate the unintended consequences of their ideas.

### Engineering Design Challenge—All L Levels

*Isaac Mandell-Seaver, Calum McConnell, Bill Pinney*

Are you a Leadershippers? Do you like to take things apart and seeing how they work? Does solving problems with your hands fascinate you? Then join us! From bridges to desk lamps, computer chips to gearboxes, an engineer is involved with almost everything around you. In this class, we delve into how they design, build, analyze, and redesign solutions to some of the world's greatest problems by solving some problems of our own. Throughout the week, you will learn about aerodynamics, structural design, and mechanics and, in teams, apply them to various challenges. You will work together to solve problems, meet constraints, and ultimately function better as teams! If you are a Leaderhipper who wants to learn more about leadership through problem-solving, teamwork, and making things with your hands - this is the strand for you!

## **Week Two Strand Descriptions (Strand Grids are at the end of the brochure.)**

### **TDI 2022 Morning Strands Week Two— June 26-July 2, 2022**

**Please pick 1st, 2nd, and 3rd choice of classes for each time period each week. Register online: [app.campdoc.com/register/tdi](http://app.campdoc.com/register/tdi). NOTE GRADE LEVELS FOR EACH CLASS.**

## **Week Two Strands—8:30–10:00 am**

### Model UN-der the Sea—Grades 4-10

*Zora Duquette-Hoffman, Noam Hessler*

After Atlantis sank, what did other underwater nations do? In this strand, we'll figure that out! We'll make up our own countries and tackle every whimsical problem found under the waves, from environmental disasters to the politics of sea sponges. Everyone will have a chance to speak up and represent their own nation, using the rules of Model UN.

Lights, Camera, Action—Grades 4-10

Susan Flint, Zane Odum

Have you ever wanted to be a director? How about a playwright? In this strand, we'll write and direct our own short plays, and star as actors in our classmates' plays. It'll be goofy and fun. If you're ready to sit in the director's chair or stand in the spotlight, then this is the strand for you!

Talk to the Hand—Grades 4-10

Megan Bachand, Bridger Ellms

Have you ever wanted to have a conversation without anyone hearing it? Have you ever had an interest in American Sign Language? If you have, this is a great strand for you. In this strand, you will learn about American Sign Language (ASL) and Deaf culture. You will also work with others in the strand to make a music video in sign language. No experience is needed.

Just Some Rocket Science—Please Note: Grades 6-10

Johannes Everse, Max Bogue

Rocket science turns out to be a lot easier than you might think\*. In this strand we will be using the flight simulator KSP, mathematical equations, common sense, and a dash of engineering in order to fly to the moon. Basic algebra knowledge and a calculator are highly recommended, though not required.

\*in a frictionless vacuum with ideal power transfer and no mechanical variables!

Explorers of Gem Hollow—Please Note: Grades 6-10

Asher Kite, Adam Browe

Gem Hollow: a mysterious northern land of glittering jewels and frost, towering trees and plummeting caverns, mountains, meadows, and things that go bump in the night. The Queen has sent you a single mission: explore Gem Hollow, at whatever cost. In this town-building board game of trade, construction, and exploration, you will make your own village, trade with other campers, and work together to discover what strange wonders Gem Hollow has to offer and why the Queen has sent you here in the first place. So, will you answer the Queen's call to action?



Fake News and Propaganda—Please Note: Grades 6-10

Jordan Schiller, Mina Bozeman

How do you know what you know? You can't believe everything you read, and who will fact check the fact-checkers? Students will learn about the origins, uses and historical examples of propaganda, and will make their own propaganda samples to convince the world... that the hot dog IS a sandwich!

**Leadership Strand Options—8:30–10:00 am**

Project & Strand Development Workshop—All L Levels  
Lucy Bogue

A space to workshop strand ideas and get feedback and support from peers and staff, as well as workshop projects on your own or with group. See previous Week One 1 pm description for more information.

**Week Two Strands—10:15-11:45 am**

Philosophy Now!—Grades 4-10

Noam Hessler, Zane Odum

Have you ever wondered how we know the sun will rise tomorrow? How we can tell that the world we know isn't an illusion? Whether people have free will, or just act based on their surroundings? If so, then you're in good company! In Philosophy Now!, we'll learn how philosophers throughout history have attempted to answer these and many more questions, and we might just try and solve them ourselves along the way.

Keep Your Wheels Turning!—Grades 4-10

Grady Farnum Rendino, Jameson Hurd

Humankind's most elegant invention (the bicycle) breaks down just like any other-- but have we ever rolled over and given up, in the face of entropy? Learn the makeup and upkeep of the noble two-wheeled steed, and maybe dip a toe into physics along the way... but not too deep (to this day we STILL can't figure out why the darn thing works). Tools, stands, and sample materials provided-- but please bring your own rig to work on!

TDI Thesis Defense—Grades 4-10

Zoe Coutu, Jack Barnhart

Do you like arguing? How about research? Have you ever found yourself deep into an internet rabbit hole about one topic that really interests you? Well, then, this strand is for you. Join the first class of TDI grad students as we endeavor to investigate whatever interests us and prepare a presentation about it. At the end of the week each presenter/group will go before the TDI Board of Advisors™ to defend their thesis, and those who succeed will be rewarded with their n-PHD (the n stands for not). Come prepared to research, argue, and add pizzazz to the serious or silly topic of your choice!

Computer Game Design—Grades 4-10

*Will Frick, Windsor Hoopes*

For as long as we have played video games, we have wanted to make them. But how is it done? Meet Unreal Engine 4, the tool used to make games ranging from blockbuster titles like Fortnite to countless indie games. Not only is it easy to get started with, it's completely free to use, so you'll be able to keep working on your creations from home after TDI! This class requires general computer skills, but no formal programming experience.

Let's Write a Book Together—Grades 4-10

*Mina Bozeman, Megan Bachand*

Do you have a great story in your head, but just can't get yourself to go to the effort of writing the whole darn thing? How about we take the brainpower of everyone, and make writing easy-peasy-lemon-squeezy instead of difficult-difficult-lemon-difficult. Together with the class, we'll brainstorm the most awesome story ever and give everyone just a small piece of the book to write. At the end, we smooch everyone's writing together and tada! A whole book. You did it, kid.

Model Roman Senate—Please Note: Grades 6-10

*Max Kriff, Jordan Schiller, Amy Barnhart*

After the signing of the American Constitution, Ben Franklin was asked what government they decided on. Famously he replied, "A republic, if you can keep it". Using the very model of Roman government that inspired America, will you be able to keep our TDI republic? Write laws, vote on bills and get elected into office in this simulation of the Roman Senate.

**Leadership Strand Options—10:15-11:45 am**

Project & Strand Development Workshop—All L Levels

*Ellen Koier*

A space to workshop strand ideas and get feedback and support from peers and staff, as well as workshop projects on your own or with group. See previous Week One, 1 pm description for more information.

**TDI 2022 Afternoon Strands**

**Week Two—June 26-July 2, 2022**

**Please pick 1st, 2nd, and 3rd choice of classes for each time period each week. Register online:**

[app.campdoc.com/register/tdi](http://app.campdoc.com/register/tdi) NOTE GRADE LEVELS FOR EACH CLASS.

**Week Two Strands— 1:00 – 2:30 pm**

Movie Making!—Grades 4-10

*Zane Odum, Adam Browe, Max Kriff*

Have you ever wanted to write a movie, star in a movie, or direct a movie? In Moviemaking, you'll get to do it

all. You'll create stories, and get into groups to write, direct, film, act, edit, and produce your own short movies! We'll work together, share our movies with each other and have loads of fun!

Mission-Control Eggstronauts—Grades 4-10

*Jameson Hurd, Grady Farnum Rendino*

The launch of the USS Omelette went off without a hitch, but our intrepid eggplorers just sent us an SOS! Time for some emergency engineering at a distance! Prepare to create solutions out of regular household items to save our eggstronauts. Then using only your instructions, we'll see if they can avoid being scrambled! We've only got one shot to land Neil Eggstrong on Mars - let's do this!

Do You See What I See? —Grades 4-10

*Lynne Jakubauskas, Mina Bozeman*

Do you want to know how your eyes and brain work together to give you information about the world? In this strand you will use hands-on equipment and lots of creativity to explore vision. Find your blind spots, experience color-blindness, take a walk in 2-D. See how vision affects your balance and figure out how optical illusions work. Wear goggles that simulate the vision of a bird. Measure persistence of vision and after-images. Make simple motion-picture devices, such as zoetropes or thaumatropes, that you can take home. Bring your curiosity and enthusiasm and join the fun! There are so many fun vision activities to try!

How Did We Get Here?—Please Note: Grades 5-10

*Jack Barnhart, Amy Barnhart, Zora Duquette-Hoffman*

In this competitive simulation you will form a subsistence economy making technological developments and soon progressing through history at a breakneck pace. Alliances and rivalries will form and collapse as economic hierarchy is created. Lobby your friends to vote in your interest and climb to the top; but don't forget to think about the planet or all of your success might be lost in a whirlwind... literally!

Bare Metal Computing—Please Note: Grades 6-10

*Charlie Wallich, Max Bogue*

Ever wonder \*why\* computers work? How we put lightning inside sand and tricked it into doing math problems? How each of those puzzle pieces fit together to make all the stuff you can do possible? In this strand we'll dig down deep into the nitty-gritty details of how and why modern computing works and how it came to be.

Calculus! Please Note: Grades 7-10

*Asher Kite, Zoe Coutu*

Have you ever pondered why the area of a circle is  $\pi r^2$ ? Ever wondered why there was an "e" on your calculator? Ever wanted to test your mathematical limits? Sounds like you are in dire need of some calculus! In this strand we'll talk about the wonderfully weird world of the infinite: how the tiny and huge clash,

how to approximate with infinite accuracy, and how slopes, areas, and volumes are all connected. Now that may sound quite posh, but it's really just algebra with more pizzazz- so all you'll need to know coming in is some algebra and how to graph a function! Are you ready to calculate some calculus?

### **Leadership Strand Options— 1:00–2:30 pm**

#### Project & Strand Development Workshop—All L Levels *Will Frick*

A space to workshop strand ideas and get feedback and support from peers and staff, as well as workshop projects on your own or with group. See previous Week One, 1 pm description for project ideas and guidance.

### **Week Two Strands— 2:50 – 4:20 pm**

#### Modern TDI Art— Grades 4-10

*Max Kriff, Adam Browe*

Art has been around for thousands of years. It was originally a tool of not only expression but documentation, especially in the scenes of drawings, paintings and statues. And since the invention of the camera, it has become more expressive than ever. In this class we will look at a wide range of art and artists from the past 100 years. Additionally, you will have a chance to discuss what you think some of this art means, and get a chance to show off your own ideas and creations through sketch and painting.

#### Who Will (Financially) Survive in America?— Grades 4-10

*Jordan Schiller, Asher Kite*

Are you ready for the real world? Bills, rent, wages and savings, how can you keep it all straight?! In this strand, you will become part of a mock economy, be given a choice of entry level jobs, and need to make tough decisions to afford basic necessities, all based on real world prices. Can you keep out of financial trouble?

#### Plunderphonics—Grades 4-10

*Will Frick, Grady Farnum-Rendino*

Everyone likes music, but could you be listening more closely? In this strand, we'll look at what makes a song unique by isolating its individual instrumental and vocal parts. Once we have a good ear for song dissection, we'll turn the tables and start making our own music using preexisting sounds! If you've ever enjoyed a funny mashup or a song with a cool sample, this is the class for you.

#### Writing and Laughing— Grades 4-10

*Noam Hessler, Megan Bachand, Zora Duquette-Hoffman*

Come to this class if you want to write. Stories, poems, scripts, silly sayings, anything! We'll have lots of fun playing group writing games and we'll have plenty of time to work on personal projects. We'll cover

everything from poems to playwriting to fiction. Get ready to write!

#### ReConstruct—Grades 4-10

*Bridger Ellms, Amy Barnhart*

In this strand, take old clothes and fabrics and turn them into something new! You'll get a sewing kit and free reign to cut up, sew together, and embroider whatever, all to create anything you want. Modify existing clothes or create new ones, make art, a blanket, a bag, a cape, a mask, maybe even a denim teddy bear! Sewing experience isn't necessary; we'll be using basic techniques, and you will be encouraged to make things up as you go!

#### Simulating Chaos—Please Note: Grades 6-10

*Max Bogue, Zoe Coutu*

What do the solar system, the weather, and a double pendulum have in common? They're all examples of chaotic systems! In this strand we'll learn the basics of chaos theory and programming to build simple simulations of chaotic systems from the ground up. Come learn some JavaScript, a little math, and make colors move around the screen in beautiful chaos.

### **Leadership Strand Option— 2:50–4:20 pm**

#### Existentialism—All L levels

*Susan Flint*

Existentialism is a type of Philosophy that focuses on human existence, highlighting topics like autonomy, free will, and the purpose of life. In this strand we'll spend a week investigating these questions, and what some philosophers thought were the correct answers. Get ready to have an existential crisis, and to solve the meaning of life!