Enrichment Programs
Advanced and Unique Courses for Gifted Students

Course Catalog
Age 3 through Grade 8

Saturday & Sunday Courses
Accelerated Weekend Experience
Tadpole Academy
Online Family Program
Welcome to CTD’s Winter Enrichment Programs

The Center for Talent Development (CTD) Enrichment Programs offer challenging and engaging opportunities for bright students to focus on specific areas of study face-to-face and online. Our research-driven courses, outstanding instruction and the camaraderie of learning with like-minded peers make our programs the place to be!

Why enrichment when you’re already in school?

Because CTD enrichment:

- Offers a community of like-minded peers.
- Provides challenging courses backed by one of the world’s most respected universities.
- Presents opportunities to delve deeper into a single topic and to develop further one’s area of strength.
- Encourages sustained, whole-family engagement, offering parent education workshops as well as online parent education, both of which address the social-emotional development of gifted learners. See page 12 for details on Parent Seminars and your complementary subscription to our online community, CTD Backpack.
CTD Enrichment Programs

What you will find in this catalog

• Tuition, locations and times of Saturday & Sunday courses (p. 2)
• Spring Saturday & Sunday Course Charts (p. 3)
• Saturday & Sunday course descriptions (p. 4)
• Information and course descriptions for Tadpole Academy for 3 year olds and their care-givers (p. 10)
• Information on the Accelerated Weekend Experience (p. 10)
• Information on Parent/Child Online programs (p. 10)
• Additional CTD offerings (p. 10-13)

What you will find online

• Go to ctd.northwestern.edu/wep and click on the individual programs to see:
  • Eligibility criteria
  • Application process, including a direct link to the online application
  • Financial aid opportunities
• Parent Seminar Schedule (free and open to the public!): www.ctd.northwestern.edu/parent-seminars
• How to schedule testing for your child age 5 through grade 3: www.ctd.northwestern.edu/prek-grade-3-testing.
• Refund and withdrawal policies: www.ctd.northwestern.edu/refund-withdrawal-policies

Center for Talent Development has been accredited as a nonpublic supplementary school by the North Central Association Commission on Accreditation and School Improvement (NCA CASI) since April 1, 1994. NCA CASI is recognized by the U.S. Department of Education and has more than 100 years of experience in improving educational quality.
## Winter 2018
### Saturday & Sunday Courses at a Glance

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<th>GRADE</th>
<th>COURSE TITLE</th>
<th>SATURDAY AM</th>
<th>SATURDAY PM</th>
<th>SUNDAY AM</th>
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<tbody>
<tr>
<td>PreK-K</td>
<td>Geometry Jumpstart: Shapes, Attributes &amp; Proportions</td>
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<td>PreK-K</td>
<td>Cats of the World: Felinology 101</td>
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<td>PreK-K</td>
<td>Robots &amp; Roadways</td>
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<td>K-1</td>
<td>Math is a Blast: Problem Solving Through Play</td>
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<td>K-1</td>
<td>Aquatic Explorers: Lessons from the Deep Sea</td>
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<td>K-1</td>
<td>Tangible Programming: Coding with Your Hands</td>
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<td>K-1</td>
<td>Animation &amp; Coding Workshop</td>
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<td>1-2</td>
<td>Solution Sleuths: Experts in Problem Solving</td>
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<td>1-2</td>
<td>Magic or Chemistry?</td>
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<td>1-2</td>
<td>Active Architects: Design &amp; Build</td>
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<td>2-3</td>
<td>Science Reporters: Understanding &amp; Communicating Complex Concepts</td>
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<td>2-3</td>
<td>Aircraft Engineering: The Mechanics &amp; Materials of Flight</td>
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<td>2-3</td>
<td>Animation &amp; Game Development: Scratch</td>
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<td>2-3</td>
<td>Programming &amp; Engineering with WeDo Robotics</td>
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<td>3-4</td>
<td>Competition Math: Speed &amp; Strategy</td>
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<td>3-4</td>
<td>Zoology: Animal Behavior &amp; Biology</td>
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<td>3-4</td>
<td>Introduction to Python Programming</td>
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<td>4-5</td>
<td>Pre-Algebra: Geometry &amp; Measurement</td>
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<td>4-5</td>
<td>Public Speaking: Crafting an Argument</td>
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<td>4-5</td>
<td>Forensic Science: Biology &amp; DNA</td>
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<td>4-5</td>
<td>Robotics: Engineering &amp; Programming</td>
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<td>4-5</td>
<td>Intro to Java Programming: Building &amp; Enhancing Games</td>
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<td>5-7</td>
<td>Integrated Math: Sequences, Functions, Data Analysis, Correlations, and Modeling</td>
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<td>5-7</td>
<td>Physical Science &amp; Civil Engineering</td>
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<td>5-7</td>
<td>Electronics &amp; Programming: Smart Wearables with a Purpose</td>
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<td>6-8</td>
<td>Persuasion &amp; Debate: Ethical Arguments</td>
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<td>6-8</td>
<td>Lab Science: Biology</td>
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<td>6-8</td>
<td>FUSE: Design Studio and Maker Space</td>
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<td>6-8</td>
<td>Java: Advanced Game Development</td>
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<td>6-8</td>
<td>NetLogo: Using Technology to Solve Society’s Tough Problems</td>
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### Tuition:
$430

### Application Deadline:
January 16, 2018

### When & Where:
**Saturday:**
January 20 – March 10, 2018

**Sunday** (Evanston only):
January 21 – March 11, 2018

**A.M. Classes:** 9:00 a.m.–11:30 a.m.
**P.M. Classes:** 12:00 p.m.–2:30 p.m.

- **Evanston, IL (EV)**
  Saturday AM & PM (EV Sat)
  Sunday AM (EV Sun)
  Northwestern University

- **Naperville, IL (NP)**
  Saturday AM
  North Central College
  31 N. Loomis St.

- **Palatine, IL (PA)**
  Saturday AM
  Quest Academy
  500 N. Benton St.

- **Chicago, IL (CH)**
  Saturday AM & PM
  The Frances Xavier Warde School
  Holy Name Campus
  751 N. State St.
## Spring 2018
### Saturday & Sunday Courses at a Glance

Update: For your planning purposes, here is the course schedule for our 6-week spring session.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>COURSE TITLE</th>
<th>SATURDAY</th>
<th>SUNDAY</th>
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</thead>
<tbody>
<tr>
<td>Pre-K-K</td>
<td>Purposeful Probability: The Likely and the Impossible</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>Pre-K-K</td>
<td>All About Birds: Ornithology 101</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>K-1</td>
<td>Making Sets: Exploring Multiplication</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>K-1</td>
<td>Young Author's Theater</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>K-1</td>
<td>Earth Explorers: Lessons from the Habitable Planet</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>1-2</td>
<td>The Magic of Biology</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>1-2</td>
<td>Hexbugs: An Introduction to Biorobotics</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>2-3</td>
<td>Math for Explorers: Geometry, Maps &amp; GPS</td>
<td>CH AM</td>
<td>EV AM</td>
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<td>2-3</td>
<td>Start-Up Challenge: Building a Business</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>2-3</td>
<td>Advanced Scratch: Leveling Up Your Games and Animations</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>2-3</td>
<td>Programming &amp; Engineering with WeDo Robotics</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>3-4</td>
<td>Zoological Zones: Ecosystems &amp; Habitats Around the World</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>3-4</td>
<td>Digital Architects</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>4-5</td>
<td>Pre-Algebra: Data, Statistics &amp; Probability</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>4-5</td>
<td>Graphic Novels: Storytelling with Art &amp; Literature</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>4-5</td>
<td>Electronics: Deconstruct &amp; Reinvent</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>5-7</td>
<td>Big Data: Math, Computers &amp; Analysis</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>5-7</td>
<td>Sustainability &amp; Environmental Engineering</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>5-7</td>
<td>Programming Complex Games with Python</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>6-8</td>
<td>Mock Trial</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>6-8</td>
<td>Biotechnology: The Helpful and the Controversial</td>
<td>CH AM</td>
<td>EV AM</td>
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<tr>
<td>6-8</td>
<td>FUSE: Design Studio &amp; Maker Space</td>
<td>CH AM</td>
<td>EV AM</td>
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</tbody>
</table>

### Tuition:
$340

### Application Deadline:
April 10, 2018

### When & Where:
**Saturday:**
April 14 – May 19, 2018

**Sunday** (Evanston only):
April 15 – May 20, 2018

**A.M. Classes:** 9:00 a.m.–11:30 a.m.
**P.M. Classes:** 12:00 p.m. –2:30 p.m.

### Evanston, IL (EV)
Saturday AM & PM (EV Sat)
**Sunday AM (EV Sun)**
Northwestern University

### Naperville, IL (NP)
Saturday AM
North Central College
31 N. Loomis St.

### Palatine, IL (PA)
Saturday AM
Quest Academy
500 N. Benton St.

### Chicago, IL (CH)
Saturday AM & PM
*The Frances Xavier Warde School*
Holy Name Campus
751 N. State St.
Saturday & Sunday Courses

Age 4–Grade 8

Saturday and Sunday courses at Center for Talent Development (CTD) are challenging and enriching opportunities for academically talented students. Our courses in English & language arts, mathematics, science, design & engineering, and computer science & technology engage students during eight consecutive Saturdays (all sites) OR eight consecutive Sundays (Evanston only) in the fall and winter and for six consecutive Saturdays OR six consecutive Sundays in spring. Students with demonstrated strengths in verbal/reading and/or math, depending on course, may apply. See ctd.northwestern.edu/sep for eligibility details.

PreK-K

Students age 4 or 5 may enroll for PreK/K courses without test scores. See ctd.northwestern.edu/sep for details. Only courses listed as “PreK-K” apply.

Geometry in Our Environment: Shapes & Attributes

*How do we use geometry in design and construction?*

Through hands-on building, stories, movement, and song, young mathematicians discover geometric concepts found in nature and the built environment. Students learn the shapes, properties, and language of geometry, identify symmetries and patterns in two and three dimensions, and construct shapes and patterns out of a variety of materials.

**SUBJECT:** Math

Cats of the World: Felinology 101

*What are the similarities and differences between the big cats in the wild and housecats?*

Young zoologists study the anatomy of cats and compare the housecat to its wild relatives, small and large. Hunt throughout the world’s last wild places to observe and discuss how these remarkable animals behave, live and adapt in their environments. Through research and hands-on activities, jump into the wildlife of cats to see how they affect their ecosystems.

**SUBJECT:** Science

Robots & Roadways

*How do we tell robots what to do?*

Using age-appropriate technology tools such as BeeBots®, learn how to tell robots where to go and what to do when they don’t listen. Write your own programs and represent that code in a variety of ways using words and symbols. Through hands-on activities, role play, and acquisition of basic programming vocabulary, students build an early foundation for future computer science experiences.

**SUBJECT:** Computer Science & Technology, Design & Engineering

Grades K-1

Math is a Blast: Problem Solving Through Play

*How is math used in the world around us?*

Through interactive games, secret codes, graphing activities, and hands-on collaborative projects, be propelled into the wondrous world of mathematics. Challenge yourself and others by creating your own games, puzzles, codes and stories about mathematical principles such as proportion, area, patterns, perimeter, and fractions.

**SUBJECT:** Math

* NOTE: WEP does not recommend that children grade 1 and under take both morning and afternoon sessions.
Aquatic Explorers: Lessons from the Deep Sea
What are some of the unique habitats in our oceans, and how do those impact life on land?
Some of the largest and the smallest creatures in the world live in the ocean. Dive into different bodies of water to learn about marine biology and organisms living underwater. Through role-play, experiments, and more, discover the diversity of ocean environments and their impact beyond the ocean floor. Using observation and guided research, analyze characteristics and habitats of a multitude of marine creatures.

SUBJECT: Science

Tangible Programming: Coding with Your Hands
How do you control a robot without written code?
Control robots like Primo Cubetto and KIBO using colorful block commands. Learn how to make your code more elegant and efficient using interactive tools like the function block. Explore fundamental computer science concepts such as symbol and algorithm through dramatic play, construction, literature, and more!

SUBJECT: Computer Science & Technology, Design & Engineering

Animation & Coding Workshop
What is an algorithm? How do we use them?
Design and build animated stories, games and more using graphical block-based apps like Scratch Jr® and Hopscotch. Develop the vocabulary, critical thinking and problem-solving skills needed for future coding courses such as Scratch, and interact with technology in an active way.

SUBJECT: Computer Science & Technology, English & Language Arts

Grades 1-2
Solution Sleuths: Experts in Problem Solving
What strategies are effective for a given problem?
A fire engine travels seven miles to a fire at a speed of 36mph. Its tank holds 500 gallons of water, but it’s been leaking throughout the journey at a rate of 22.5 gallons per hour. If the fire engine needs 497 gallons of water to put out the fire, will it succeed? Grapple with mind bogglers and brainteasers like this one to determine the best solutions to real-life problems. Mathematical dexterity is enhanced as young learners think about, solve, and create their own complex and interesting problems.

SUBJECT: Math

Magic or Chemistry?
How are seemingly impossible feats achieved by chemical reactions and temperature changes?
Magic show or science lab? Explore the chemistry of magic as you learn tricks based on scientific facts and discover the principles behind these amazing effects. As a chemistry magician, reveal the surprise and awe of science as you experiment with magnets, air pressure, polymers, and indicators. Apply scientific principles to design and perform a variety of chemistry-based illusions. See how you can change your pH balance of the human body just by eating, and make water disappear!

SUBJECT: Science

Active Architects: Design & Build
How do building materials inform design?
Future designers, builders and architects are introduced to architectural vocabulary, architectural tools, and visual/spatial thinking. Design your own original buildings and build 2D and 3D models in various formats and with varied materials. Investigate art, architecture, science, and math in this interdisciplinary course.

SUBJECT: Design & Engineering, Math, Computer Science & Technology
Grades 2-3

Science Reporters: Understanding & Communicating Complex Concepts

How can scientific information be most accurately portrayed to an audience?

How can you explain the complicated process of metamorphoses in basic terminology? Research scientific breakthroughs, paraphrase your findings, and act as a science correspondent for a national news broadcast. Gain experience using various media (such as video, print, and electronic) to report your stories. Engaging activities will focus on scientific reading and writing, analysis, and presentation skills, in addition to strategies that illuminate biases and accuracy in reporting.

SUBJECT: English & Language Arts, Science

Aircraft Engineering: The Mechanics & Materials of Flight

What major engineering and design principles make flight possible?

From hot air balloons to space launching systems, how do we create structures that are light, durable, and safe? This course introduces aerospace engineering concepts as students investigate tools, terminology and design principles of flying machines. Design, build, test, and analyze results in hands-on physics and engineering experiments related to airplanes and spacecrafts. Explore how engineering influences the development of new materials and designs for flight.

SUBJECT: Science; Design & Engineering

Animation & Game Development: Scratch

How can we write programs that both humans and computers can understand?

Do you want to know how the computer games you love are made? Learn how to create original animations and games using Scratch, a graphical programming language designed for students. Join a global community of Scratch programmers for ongoing collaborative learning and skill development. No formal programming experience is necessary. This course helps prepare students for text-based programming languages like Python.

SUBJECT: Computer Science & Technology

Programming & Engineering with WeDo Robotics

How does the intended function of a robot change how it is designed?

Gain an introduction to robotics using LEGO® software along with the LEGO® WeDo building blocks, sensors and motors. Program a simple machine of your original design to follow a sequence, interact with its environment or act out a story. Develop programming knowledge while utilizing geometric skills, logical reasoning, design technique and creative thinking.

NOTE: Additional $25 materials fee required.

SUBJECT: Computer Science & Technology, Design & Engineering

Grades 3-4

Competition Math: Speed & Strategy

How many ways can you solve the same problem?

Mathletes in training can increase the speed of their mental computing and practice their skills during friendly team competitions. Students practice discussing, identifying and explaining the processes and strategies associated with various math problem-solving concepts, focusing on algebra, geometry, number theory, counting and probability.

SUBJECT: Math
Zoology: Animal Behavior & Biology
How do behavioral traits help animals survive and thrive in their ecosystems? What behaviors do animals use to claim a territory, find food, avoid predators, find mates, and migrate? Through hands-on experiments and research, learn about the unique adaptations that animals have to their environments. Track the movement of land animals and birds from all over the world and evaluate how animal migration and behavior is influenced by natural phenomena such as weather patterns, landforms, or seasonal changes. Discover how your household pet can warn you that an earthquake is coming, and how elephants communicate emotion.

SUBJECT: Science

Introduction to Python Programming
How do you build original animations and game elements using simple code? Python is a powerful, flexible, yet simple object-oriented programming language with applications across fields from gaming to Google. Develop essential text-based coding skills while using lists, loops, if statements, and functions, for example. In a collaborative setting, workshop original images and patterns using Turtle Graphics with fellow coders. Add your own elements to computer games in order to see the power of Python at work.

NOTE: This course is intended for students who’ve completed prior programming courses with CTD. Eligibility must be confirmed before enrolling.

SUBJECT: Computer Science & Technology

Grades 4-5

Pre-Algebra: Geometry & Measurement
How does understanding geometric figures help us navigate the world around us? Linked to the Common Core State Standards, this pre-algebra series incorporates three courses offered sequentially in the fall, winter, and spring. Students may participate in any or all of these courses beginning in any session. Through exploration, practice, and application, students develop skills to deepen their understanding of mathematical ideas and apply them to real-world settings.

FALL: Numbers & Algebraic Thinking
WINTER: Geometry & Measurement
SPRING: Data, Statistics & Probability

SUBJECT: Math

Public Speaking: Crafting an Argument
How does presentation impact the success of arguments? Practice and apply elements of public speaking, including research processes, verbal and nonverbal communication strategies, data visualization, and presentation skills. Learn to form strong research-based arguments about real-world issues through comparison of argument strengths and weaknesses and apply that knowledge to make your case. Participate in a series of in-class presentations and debates about a variety of topics to make your argument airtight!

SUBJECT: English & Language Arts

Forensic Science: Biology & DNA
Why is biology critical to the field of forensic science? Why do you need more evidence than testimony from a witness to solve a crime? From sample collecting to DNA quantitation and amplification, use biological data to generate an informed body of evidence and conclusions about a crime. Explore the procedures of DNA technology as it applies to forensic settings. Learn and apply the scientific method as you investigate a staged crime scene by researching patterns, identifying features of human cells, constructing a list of human tissues and fluids, and assembling the components of DNA molecules.

NOTE: Additional $10 materials fee required.

SUBJECT: Science
Robotics: Engineering & Programming
How does the design process influence the field of robotics?
Create and command the next generation of robots that walk, talk, think and do anything you can design. Using the LEGO® MINDSTORMS® EV3 set, follow the engineering design process from start to finish through a series of robotics projects. Connect to real-world robotics while you build, program, and test advanced robot models in the same way engineers in a variety of industries do. Explore authentic ways robots can complete complicated challenges, record data, and make life easier.
NOTE: Additional $25 materials fee required.
SUBJECT: Computer Science & Technology, Design & Engineering

Intro to Java Programming: Building & Enhancing Games
What is the value of a common coding language?
Learn about the Java programming language and object orientation through the use of Greenfoot, a complete, interactive Java-based development environment. As you build your own games, explore basic programming concepts and learn to write in real code. Enhance your games with images and sounds.
SUBJECT: Computer Science & Technology

Integrated Math: Sequences, Functions, Data Analysis, Correlations, and Modeling
How can we connect patterns, relations, and functions so that they make sense? Where and when do we actually use algebra in the world, and how is it connected to the other strands of math? By balancing and integrating mathematical techniques taken from algebra, geometry, statistics and probability, learn how to use math as a reasoning tool outside of the classroom. With a problem-based, student-centered approach, apply quantitative thinking to real-world scenarios and engage in collaborative exploration of realistic problems with other math-minded classmates.
NOTES: A scientific calculator is required.
SUBJECT: Math

Physical Science & Civil Engineering
How can science and engineering be used to solve society’s challenges?
Based on the Next Generation Science Standards, this course engages students in engineering practices across various disciplines. Students immerse themselves in the engineering method as they define real-world problems, research and brainstorm solutions, prototype and test design solutions, and practice communicating scientific information. Working both individually and in groups, tackle hands-on projects which may include designing a bridge or airport, building water and sewage systems, or constructing railways.
NOTE: Additional $25 materials fee required.
SUBJECT: Science, Design & Engineering

Electronics and Programming: Smart Wearables with a Purpose
What tools and strategies do entrepreneurs employ to develop innovations that change lives?
“Wearables” refers to electronic technologies that perform tasks a computer can do and that are attached to clothing or worn on the body. Develop critical thinking and programming skills as you creatively solve real-world problems across fields from health and safety to gaming. By researching, building, and programming original projects with a purpose, explore how technology can make a positive impact on people’s lives.
NOTE: Additional $25 materials fee required.
SUBJECT: Computer Science & Technology, Design & Engineering

Persuasion & Debate: Ethical Arguments & Civil Discourse
What tools are needed to engage in respectful debate around real life ethical issues?
How can you make your voice heard by others when discussing a hot-button topic? Learn principles and practices of communication while wrestling with age-appropriate, ethically complex questions. Apply research, thoughtful analysis and critical thinking to engage peers in systematic, open-minded debate. In a constructive, collaborative setting, students gain confidence in supporting and explaining their beliefs using reliable sources, body language, vocal presentation, active listening skills and civil discourse.
SUBJECT: English & Language Arts
Lab Science: Biology
What do the structure, function, and behavior of organisms reveal about life on Earth?
Students are introduced to a range of important biological concepts using current best practices, presentations and project-based laboratory experiments. Topics include biochemistry, microbiology, cell structure, cellular reproduction, DNA, genetics, evolution and ecology.

SUBJECT: Science
NOTE: Additional $75 lab fee required.

FUSE: Design Studio and Maker Space
How do you apply the design process to both physical and 2-dimensional products?
Select design challenges from a variety of fields, such as electronics, robotics, biotechnology, architecture, sound mixing, or fashion design to create products that use STEAM-based practices (science, technology, engineering, arts/design and mathematics) and develop problem solving, creativity, and persistence. The challenges, developed by researchers and educators in the School of Education & Social Policy at Northwestern University, are open-ended and student-driven, encouraging independent and collaborative problem solving. With the help of an expert facilitator, you’ll produce and present your digital media artifacts for peer review, remixing, and expert feedback.

NOTE: Additional $25 materials fee required.

SUBJECT: Design & Engineering, Computer Science & Technology, Science

Java: Advanced Game Development
Why is human understanding important when we write programs to be run by computers?
In this next-level programming course, take basic Java programming principles and knowledge and apply it to more advanced projects. Learn the physics required to simulate projectiles, gravity, and jumping. Develop design and management techniques to create and maintain more complex games. Use these techniques to build and maintain side-scrolling worlds.

NOTE: This course is intended for students who’ve completed prior Java programming courses with CTD. Eligibility must be confirmed before enrolling.

SUBJECT: Computer Science & Technology

NetLogo: Using Technology to Solve Society’s Tough Problems
How can we explore solutions for social, environmental and scientific challenges of our world through computer-based modeling?
Are there any ways we can increase people’s involvement in democratic processes? What are the challenges of integrating autonomous cars into the traffic of large cities? How can transportation authorities help contain spread of diseases? Computer-based modeling helps scientists, economists, health care professionals, and others more deeply understand such complex questions and offer potential solutions. Using the NetLogo agent-based modeling environment, young scientists create their own computer-based models in order to propose solutions to important contemporary challenges of our world and contribute to the betterment of society.

SUBJECT: Computer Science & Technology
Accelerated Weekend Experience (AWE)
The Accelerated Weekend Experience (AWE) provides academically talented students a full, single weekend to explore an area of study in depth with an expert in the field.

- Gain insight into careers in math, science or technology.
- Engage with like-minded peers and motivating instructors.

AWE runs on a single weekend (both Saturday and Sunday) from 9 a.m. to 2:30 p.m. Courses are offered in partnership with host sites, most often a school or community organization.

Tuition: $265
Check website to view the science, engineering and technology courses that are taking place in Evanston on December 9 & 10, in addition to other dates and locations near you.

Learn more at www.ctd.northwestern.edu/awe

Tadpole Academy
Tadpole Academy is a series of three parent-child classes on Saturday mornings in Evanston. No test scores are required for your child to participate. Children must be three years old (at time of program) and accompanied in each class by a parent or caregiver.

Tuition: $120
(per session — families can register for one or both sessions)

Northwestern University, Evanston
Session I: Robot Friends, January 20; Best Nest, January 27; Food Truck, February 3.

Session II: Bake Shop, February 17; Under the Sea, February 24; Carrot Seed, March 3.

Learn more at www.ctd.northwestern.edu/tadpole-academy

Online Family Program
Bright, busy and inquisitive students, Kindergarten through grade 3, engage in 9-week, flexible online modules with their parents to experience exciting science, technology, English/language arts and math classes in the comfort of their own homes. Conceived by gifted experts, taught by gifted educators, these online classes provide parents with the playful, engaging curriculum and experienced teacher interactions to help them develop their child’s critical learning skills, and to instill a love of learning in your child.

Tuition: $310

Winter classes include:
- Engineering for Kids: Simple Machines & Inventions, grades K-1
- Book Club, grades K-1
- Lego Architecture, grades 2-3
- Book Club, grades 2-3

Learn more at www.ctd.northwestern.edu/online-family
Gifted LearningLinks Online Enrichment Courses

Grades 3-8
CTD’s online enrichment courses are non-graded courses that allow students to expand their learning horizons and explore topics beyond the core curriculum. Instructors have expanded flexibility to differentiate instruction based on each student’s goals, experiences, and desire to learn. Enrichment students gain in-depth knowledge of focused topics through interactive courses that challenge intellect and pique curiosity.

Nine-week courses
NEW COURSE SESSIONS BEGIN QUARTERLY:
September 15, January 15, April 1, June 15

Learn more at
www.ctd.northwestern.edu/online-enrichment

Gifted LearningLinks Online Core Essentials Courses

Grades 3-8
CTD’s online Core Essentials courses are designed to provide opportunities for advanced students to explore core academic subjects at a higher cognitive level. Students master academic content standards in a format specifically designed for the way gifted students learn. Many students use Core Essentials courses as alternatives to in-school courses in their strength areas, to academically accelerate, or as part of a homeschooling plan of study.

Nine-week courses
NEW COURSE SESSIONS BEGIN QUARTERLY:
September 15, January 15, April 1, June 15

Learn more at
www.ctd.northwestern.edu/online-core-essentials

CTD also offers online courses for credit for grades 6 through 12 throughout the year. For online Honors Electives, Honors, Advanced Placement®, and Hybrid (combined in-person and online) course options, please visit www.ctd.northwestern.edu/online.

For more information or to register:
E-mail ctd-admissions@northwestern.edu
Phone 847/491-3782
Supporting your child’s talent development and being an advocate for high ability and gifted children is an important role for parents.

CTD is committing to helping parents
• Understand talent development
• Be effective advocates
• Find and take full advantage of educational opportunities
• Connect with a network of parents and experts

Parent Seminars
CTD provides parents with the opportunity to hear from experts in the field of gifted education and child development. These free, 90-minute seminars, which are open to the public, are held on Saturdays and evenings throughout the Chicagoland area. Past presenters have included experts from Rush NeuroBehavioral Center, the Family Institute, and Center for Talent Development.

See the schedule of winter seminars on our website. No registration or RSVP required.

Examples of past seminar topics
• The Savvy Parent’s Guide to Advocating for Your Gifted Child
• How Can Executive Function Skills Help Gifted Students?
• Neuroscience for Empowered Innovation
• How to Raise a Growth Mindset Child

CTD Backpack for Parents
CTD’s Backpack for Parents is a robust online community for parents of academically advanced and gifted students who want to learn more about the talent development process and support their children’s interests and growth.

Members benefits include the following:
• Access to free webinars, articles, videos, and podcasts about talent development, educational opportunities, and working with schools to help children meet their full potential
• Participation in discussions with peers and experts in the field of gifted education and talent development
• Receiving information about academic programs, including information about CTD program offerings, competitions, and scholarships for students

Membership to CTD Backpack for Parents is free with enrollment in a CTD program, or may be purchased separately online at www.ctd.northwestern.edu/ctdbackpack.

See page 10 for parent-child classes!
Northwestern University’s Midwest Academic Talent Search (NUMATS)

Advanced assessment that identifies your child’s talents and provides the resources you need to develop them.

You know your child is curious and smart. But do you know . . .
• the full extent of your child’s ability?
• your child’s specific academic strengths?
• the level of instruction your child needs to be challenged and ensure academic growth?
• the range of programs and services available to your family?

Through NUMATS, students and families . . .
• receive valuable information to help you plan your child’s academic journey through high school graduation
• gain insight into academic strengths and benchmarks for measuring growth
• get practice on the high-stakes test(s) used for high school placement, scholarships, and college admissions
• learn about gifted programs for which your child might qualify
• get connected to an active, online community of gifted learners and their families

Your child may be doing well in school and participating in enrichment programs on weekends or in the summer. Still, you may not know the full extent of your child’s abilities and academic needs. NUMATS can help!

Understanding your child’s level of achievement is an important first step. Grade-level state exams do not measure knowledge and skills beyond the current grade. And, computer-adaptive tests do not have the quantity of higher-level questions needed to identify what advanced students are ready to learn. NUMATS solves the problem by using assessments designed for older students that measure college and career readiness. Students in grades 3–6 take the PSAT™8/9, typically administered in grades 8–9. Students in grades 7–9 take the SAT® and/or ACT®. These challenging tests provide a more accurate measure of your advanced learner’s knowledge and skills and can provide insight into what level of instruction is appropriate.

Assessment dates are available throughout the year.

See the NUMATS website, www.ctd.northwestern.edu/numats, for registration deadlines, test dates, fees, and a short video about the NUMATS experience.
Weekend Enrichment Programs
Advanced and Unique Courses for Gifted Students

Winter 2018 Dates
Saturdays: January 20 – March 10, 2018
Sundays (Evanston only): January 21 – March 11, 2018

APPLICATION NOW OPEN!

Mark Your Calendar for Spring 2018 Dates
Saturdays: April 14 – May 19, 2018
Sundays (Evanston only): April 15 – May 20, 2018

Contact Information
Northwestern University
Center for Talent Development
617 Dartmouth Place
Evanston, Illinois 60208-4175

Admissions
phone: 847/491-3782
fax: 847/467-4283
e-mail: ctd-admissions@northwestern.edu

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twitter: twitter@CTDatNU