# Course Descriptions for Mighty Roots Academy Programs



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## Class Offerings 2021-2022

The mission of Mighty Roots Academy is to provide active, multiage learning in a nature rich environment.

# **Homeschool Academy Course Descriptions**

## Homeschool Academy: Class Block 9:30-10:30

Me and My World

Ages: 5-10 years old

Students will explore the world as it relates to them starting with their families, neighborhoods and communities in this Social Studies based course.

Included in this course: social studies, reading, writing skills, science, art, music, and health

Math Games Sr. Ages: 10-15 years old

We will bring math off the page and to life through challenging games and activities. Students will problem solve practically, through active learning, and with friends of different ages and interests. Multi-leveled activities will meet each student at their math level while challenging them to master new math skills in fun ways. Target skill range 5<sup>th</sup>-9<sup>th</sup> grade. Students should have at minimum mastery of basic multiplication, division, and fractions. They should be familiar with long division, adding and subtracting fractions, and solving for missing information.

Included in this course: math, reading, art, science, and problem solving

Art Sr. Ages: 9-15 years old

Let your student unleash their inner artist! Many art forms and mediums will be explored in this hands-on class. An emphasis will be made on how to creatively and clearly express yourself through your art. Students will be encouraged to improve their techniques over the course of the year, comparing and contrasting their past artwork.

Included in this course: art, art history, social studies

Additional Materials Required: \$20 class materials fee for the year

#### **Literature Adventures**

Ages: 7-12 years old

Students who have developed a foundation in reading and writing will bring stories to life through literature and creative writing. This course provides an introduction to grammar and a variety of literature and writing styles for students who need to continue to strengthen their reading foundation and not yet regularly reading long chapter books.

Included in this course: literature, reading, creative writing, grammar, history.

# Class Offerings 2021-2022

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### Homeschool Academy: Class Block 10:30-11:30

#### Stories and Storytelling

Students will read, tell, and create stories to explore early reading and literature skills through narrations, imaginative play, story creation, and character analysis. This course is intended for students developing a foundation in reading.

Included in this course: reading, early writing skills, social studies, science, art, music, and health

Ages: 5-8 years old

Art Jr. Ages: 5-10 years old

This course will explore a variety of art mediums – sketching, sculpture, mosaic, mixed media and several painting techniques. Some art history will be included.

Included in this course: art, history, social studies

Additional Materials Required: \$20 class materials fee for the year

Farm to Table Ages: 10-15 years old

This science and nutrition course helps students explore the science, agriculture, manufacturing, marketing, preparation and consumption of food from the farm to the table. Students in this class will complete 10-15 cooking labs in a home near Mighty Roots Academy. To take this class, parents must allow student to leave the Mighty Roots Academy campus under the supervision of the teacher and use cooking appliances such as stoves and ovens.

Included in this course: science, health, history, math, language arts.

Additional Materials Required: \$20 class materials fee for the year

Around the World Ages: 8-15 years old

Students will take a journey around the world looking at many different cultures. Along with learning history and geography, students will look into other culture's arts, food, and lifestyles.

Included in this course: geography, history, science, literature, art, music, and language arts

## Class Offerings 2021-2022

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## Homeschool Academy: Lunch and Discovery Play Block 11:30-12:30

Students will eat their lunch brought from home, complete a small school chore and have the remainder of the class to play. MRA wants to increase the average 12 minutes per day that an American child spends outside in nature! Unhindered imaginative play, while supervised (but not interrupted) by an adult, is the true work of childhood. Our students receive the opportunity to enjoy our beautiful outdoor acreage however they choose. Pickup sports games, pretend adventures, exploring the grounds, or laying in the grass enjoying the sunshine.

Included in this course: health and physical fitness

<u>Note</u>: Students will go outside daily and should be dressed in weather appropriate clothing. Bring a daily change of clothes in case they are needed. Severe weather alerts will prevent outdoor play but rain, snow, and wind will not.

## Homeschool Academy: Class Block 12:30-1:30

Math Games Middle Ages: 7-11 years old

We will bring math off the page and to life through challenging games and activities. Students will problem solve practically, through active learning, and with friends of different ages and interests. Multi-leveled activities will meet each student at their math level while challenging them to master new math skills in fun ways. Target skill range 2<sup>nd</sup>-5<sup>th</sup> grade. Students need to have a mastery of addition and subtraction to 20 and be familiar with addition and subtraction with borrowing and carrying to take this course. Also see Math Games Jr. And Math Games Sr.

Included in this course: math, reading, art, science, history, and problem solving

Math Games Jr. Ages: 5-8 years old

We will bring math off the page and to life through challenging games and activities. Students will problem solve practically, through active learning, and with friends of different ages and interests. Multi-leveled activities will meet each student at their math level while challenging them to master new math skills in fun ways. Target skill range K-2<sup>nd</sup> grade.

Included in this course: math, reading, art, science, and problem solving

#### Exploration to 1850s

Continuing our study of the history of the world, this class covers the Renaissance (starting with the 15<sup>th</sup> century) through the dynamic changes that occurred through to the 1850s. This class does more than look at historical dates and figures: students discuss economics, politics, government, culture, geography, literature, music, and art. Practical application of history to our current world is emphasized, as well as interest-led projects.

Included in this course: history, geography, music appreciation, art, literature, writing, and group projects

Makers Ages: 5-15 years old

Look through the eyes of inventors and scientists bring STEM (science, technology, engineering, and math) to life with your own hands and brains. Students will learn about inventors throughout history, discover their own solutions and ideas for solving problems, and even create some exciting things of their own.

Included in this course: science, history, reading, math, writing, and drawing

Ages: 9-15 years old

# Class Offerings 2021-2022

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#### Homeschool Academy: Class Block 1:30-2:30

The Food I Eat Ages: 5-11 years old

This science and nutrition course helps students explore the science, agriculture, manufacturing, marketing, preparation and consumption of food from the farm to the table. Students in this class will complete science and cooking labs once or twice a month using equipment such as microwaves, toaster ovens, mixers, blenders, and griddles.

Included in this course: science, health, history, math, language arts.

Additional Materials Required: \$20 class materials fee for the year

Sensory Science Ages: 5-9 years old

Discover the world around you and create experiments that stimulate your senses! Through hands on experiments, interesting books, lab notebooks, and other activities students will delve into the world of science. They will discover the complexity, order and wonder.

Included in this course: science, reading, math, writing, and drawing

#### **Literature/Creative Writing**

Students will read, discuss, and analyze four to five books over the course of the year that are cooperatively selected by the students and teacher after receiving input from the students taking the class. Students will read the stories at home. Class time will be spent discussing the books, analyzing the writing, and provide teachable moments to focus on grammar. Each book will be celebrated with a themed party. Students will have the option of writing a literary analysis at the end of the year as well as try their hand at a variety of writing styles. Students will need to complete the required weekly reading through reading on their own, being read to, or the use of audio books.

Included in this course: literature, reading, creative writing, grammar, history.

Materials: Students provide their own books. Most are available through the library.

#### Geology/Paleontology

Pre-teens and teenagers get to dive into the fascinating world of geology and paleontology! Students will enjoy learning about the earth's minerals, rocks, fossils, and (of course) dinosaurs. Hands on projects will bring dead things to life!

Included in this course: science, history, reading and writing

Homeschool Academy: All School Play 2:30-3:00

Ages: 9-15 years old

Ages: 9-15 years old

## Class Offerings 2021-2022

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# Creative Options Course Descriptions: WEDNESDAYS ONLY

Course: 9:30 - 12:15

Forest School Ages: 4-7 years old

Let your child enjoy the beauty of nature while learning! This outdoors-designed school time will explore the wonderful 5-acres that Mighty Roots Academy has to offer. Along with highlighting natural learning opportunities through adventuring and playing, forest schoolers will cover reading, math and science each day. These lessons will inspire interest in academics without formal pressure.

This course includes a Lunch and Discovery Play.

Courses: 9:30-10:30

Spanish Club Sr. Ages: 8-14 years old

Using songs, games, stories, and acting organized around units, students explore another language together. Students actively engage, move, and play with language to develop basic Spanish skills. Let's explore together! ¡Vámanos!

Book Club Ages: 7-14 years old

Book club provides an opportunity to explore literature, grammar, and writing techniques. Students complete the assigned reading, optional dictation, and optional writing activity on their own during the week. Books are selected by the group. 4-5 books will be read during the year and a themed book party celebration for each book.

<u>Additional Materials</u>: Students provide their own copy of each book. Most are available through the library

Courses: 10:30-11:30

Outdoor Skills Ages: 7-14 years old

This outdoor class gives students hands-on experience with the natural world. Students will develop skills to help them navigate the great outdoors as well as wilderness survival skills. Plant identification, fire starting, survival shelters, wood carving, outdoor games, knot tying, orienteering and other topics according to students' interests.

Students may bring a knife that closes that will be held by the teacher until class.

Robotic Club Sr. Ages: 9-14 years old

Work with a team and the whole class community to program Sphero RVRs. This class will learn the basics of driving this all-terrain and highly programmable robot. We may expand, depending on ability levels of students, into exploring coding with JavaScript! Come share your knowledge or learn from others!:)

Additional Materials Required: \$25 class materials fee for the year

## Class Offerings 2021-2022

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### **Creative Options Course Descriptions:** WEDNESDAYS ONLY

#### **Lunch and Discovery Play** 11:30 - 12:30

Students will eat their lunch brought from home, complete a small school chore and have the remainder of the class to play. MRA wants to increase the average 12 minutes per day that an American child spends outside in nature! Unhindered imaginative play, while supervised (but not interrupted) by an adult, is the true work of childhood. Our students receive the opportunity to enjoy our beautiful outdoor acreage however they choose. Pickup sports games, pretend adventures, exploring the grounds, or laying in the grass enjoying the sunshine.

Note: Students will go outside daily and should be dressed in weather appropriate clothing. Bring a daily change of clothes in case they are needed. Severe weather alerts will prevent outdoor play but rain, snow, and wind will not.

Course: 12:30-2:00

**Musical Theatre** Ages: 5-14 years old

Students will explore the elements of musical theatre as well as learn staging, acting, dancing, and singing skills. Students will put on a winter and spring production. Students will need to work on lines and songs outside of class time. Students provide their own costumes.

Courses: 12:30-1:15

#### Spanish Club Jr.

Ages: 5-9 years old Join in the fun as students play games, sing, play in nature and learn Spanish! This play based introduction to Spanish will offer opportunities for students to learn high frequency vocabulary and basic conversation.

**Artists Unleashed!** Ages: 5-14 years old

Give your student the gift of artistic expression! This all-ages class will cover many art forms and mediums. With an emphasis on emotional intelligence, students will learn how art can be therapeutic as well as FUN! Your student will learn new art skills while enjoying the freedom to create.

Courses: 1:15-2:00

Robotic Club Jr. Ages: 5-9 years old

Experience basic coding by using a bee-bot with your team! Students will work together to program their bee-bot to perform various tasks from working through a maze to drawing to pushing objects around a level field and more!

Additional Materials Required: \$25 class materials fee for the year

#### **Entrepreneurs and Inventors**

This confidence building class will inspire your student to try new things! One semester will cover entrepreneurial endeavors - simulating each student as their own small business owner; while the Spring semester will become a kind of makers class with students creating new inventions and product ideas. This will be such a fun and exciting way to do some STEM (Science/Tech/Engineering/Math) as well as oral communication skills (presenting your business or

invention to the class).

Ages: 9-14 years old