

SUMMER SCIENCE SESSIONS

Science Camp

June 26, 27, 28 Mon., Tues., Wed.

West Holmes High School

2017



Early registration Mon., June 12

What: Science, Technology, Electronics, Engineering, Environment, and Math

Who: Students completing 4th, 5th, 6th, 7th, 8th, or 9th Grade may participate.

CLASSES:

MONDAY, TUESDAY, WEDNESDAY AM

Nifty Synthesizer Toy -Electronics (Fee: additional \$14.00) (Grades 6-9) (Limit 6) (Session #1 MTW mornings) Taught by David Bayer, inventor. Project designed by Aaron Rennie and David Bayer.

In these 3-morning sessions each student will make a tiny, handheld, electronic, musical instrument that has many of the features and adjustments like a musician's synthesizer. Making this device involves assembly and soldering; instruction and tools will be provided.

MONDAY AM

Engineering Popsicle Bridges Part 1:- Engineering (Grades 4-9) (Session #2M- morning pt1; afternoon pt2) Taught by: Chris Young, Holmes Co. Engineer & Josh Galbraith
Want to be an engineer who builds bridges? This class will challenge you to design and build a bridge using Popsicle sticks and glue. Will you meet the building criteria to hold a specific weight to span a specific length? In addition to testing for structural and weight bearing requirements, the bridge will be judged on its appearance as well. Take the challenge to be a creative bridge building engineer. Test bridges in Part 2 Mon. P.M. class.

Swinging Music Maker: -Science (Fee: additional \$15.00) (Grades 4-9) (Session #3M morning pt1; afternoon pt2-) Taught by Larry Hall, Knox County OSU Extension Educator, 4-H Youth Development

Make your own set of Pipe Chimes. Not necessary to read music notes, but you can make music your own. Learn the connection of science to musical sound. You will easily learn to play familiar songs, camp songs, or traditional songs. Take this class and take home your handmade musical instrument. Come learn how science makes music.

MONDAY PM

Popsicle Bridge Testing Part 2: -Engineering (Grades 4-9) (Session #2M-pt2 from AM) Continued from Monday Morning. Must take both parts.

Test the load bearing weight of your bridge and the span requirements as well as the appearance of your Popsicle Bridge. What will you learn about bridge designs? Will your team's bridge hold the most weight? Take the challenge. Take this class.

Swinging Music Maker to Science Detective: - STEM Science (Fee: additional \$5.00) (Grades 4-9) (Session #3M pt2 from AM) Continued from Monday Morning. Must take both parts.

Finish Pipe Chimes. **Part 2** Be a science detective problem solver for activities that may include, Ag-Bots and/or Eco-Bots utilizing Hex Bugs, a submarine activity, wind turbine blade design challenge and diaper mining to demonstrate absorption. Learn and explain how the science works.

TUESDAY AM

Fun With Computer Programming: - Computers (Grades 4-9) (Limit 15) (Session #4T)

Taught by Andy Barr, Altair Engineering

In this class you will learn basic computer programming concepts and use them to make your own interactive stories, games, and animations.

Students need to bring your own ear buds for this class.

Beginning Chess: - Logic (Grades 4-9) (Limit 10) (Session #5T)

Taught by Dr. Robert Anthony, Holmes County Coroner; A Competitive Chess player

Want to learn to play chess? Join this class to learn the fundamentals of the game of chess, learn directions game pieces move, and strategies.

Need to bring your own chessboard set.

TUESDAY PM

Checkmate- Intermediate Skill: - Logic (Grades 4-9) (Limit 10) (Session #6T)

Taught by Dr. Robert Anthony, Holmes County Coroner; Chess Competitor

What are your strategies for playing chess? What is the logic of specific moves? Observe and evaluate your skills as you learn strategies and techniques to improve your game as a chess player. This is an opportunity to play chess with others and with Dr. Anthony to test your memory for game board positions, logic of current moves related to future moves, and overall strategies to make checkmate in the fewest moves. **Bring your own chessboard set.**

Feed Your Brain: - Math Logic Puzzlement (Grades 4-9) (Session #7T)

Taught by: Thomas B. Gregory, Emeritus Professor Mathematics, OSU Mansfield

Learn through Math Activities for Entertainment, Puzzlement and Enlightenment. Use what you have learned and what you can learn to have fun as you gain insight into the world around you. Challenge your thinking and others with logic puzzles.

WEDNESDAY AM

Let it Rain: - Environmental Problem Solving (Grades 4-9) (Session #8W)

Taught by Jane A. Houin, Holmes County Soil & Water Conservation District

You and your team will design and construct your own watershed pattern and community. You will learn to predict watershed patterns as you utilize an "environscape" model.

Investigate the impact of human interactions with the land and the causes and effects of rainwater and pollution on water sheds influencing the health of the earth. Oh the **Wonders of Watersheds.**

WEDNESDAY PM

FIELD TRIP Brown's Lake Bog: - Environment, Geology and Biology (Grades 4-9 and parents need to attend to provide transportation) (Session # 9W)

PART 1 In Class at West Holmes

Taught by: Carol Remington, Former West Holmes Teacher

Can you define a bog? How do you describe it? Explain how a bog is similar to or different from a fen? This class discussion will prepare participants for the field trip to Brown's Lake Bog. Learn vocabulary needed to better understand the significance of our local bog. Learn adaptations that plants have made growing in bogs and fens. Did you know we have a bog so close to West Holmes District? What are kames, kettle holes and kettle lakes? Come learn how and why we have them.

PART 2 Field Trip and Hike to Brown's Lake Bog. PARENTS PROVIDE TRANSPORTATION FROM WEST HOLMES HIGH SCHOOL TO BROWN'S LAKE BOG.

Taught by: Karen Seidel, Central Ohio Conservation Project Manager, The Nature Conservancy in Ohio

Karen Seidel will lead the participants through the woods to the bog as she explains her job of monitoring the bog. She will point out some of the most typical species of plants. Learn about the changes of landscape from ancient geological impact to the current environmental habitat for plants. You will have opportunities to view and identify several rare plants and what makes them rare. Make it a family outing to an OHIO preserve close to home that is a National Natural Landmark. This is an opportunity to learn about a rare treasure in our area.

About the SUMMER SCIENCE SESSIONS Science Camp Partners

American Association University Women (AAUW) encourages girls to participate in Science, Technology, Engineering and Math (STEM) activities. In 2010, Holmes County AAUW chapter offered a class on Magnets and Electromagnets. Holmes County 4-H OSU Extension offers youth learning through local 4-H club projects and extension activities and became a partner in 2011. West Holmes Science Club was a partner in 2013. Delta Kappa Gamma (DKG) is an educational society that promotes education. DKG became a sponsoring partner in 2016.

Summer Science Sessions

REGISTRATION FORM

June 26, 27, 28, 2017

Return by Mon., June 12, 2017 early registration \$25 + any added fee. After June 12, registration is \$30 + any fee.

Student Information (Please Print clearly so nametags will have correct spellings.)

Student Name Phone School District Building Grade Completed

Parent or Guardian Father: Mother

Father's Address Mother's Address

Father's Phone Mother's Phone

Circle how you learned of Summer Science Sessions Camp: School flyer/Teacher? School Newsletter? Newspaper? Daily Record? Shopper? Bargain Hunter? Radio? Electronic Bulletin Board Mbg Square? Rodhe's Bulletin Board? Library? Friend? Parent? Other

CLASS SESSION Preferences: Indicate 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th choice if a class is full. Check-in 15 minutes prior to class. All-day participants, bring your lunch.

+ fee 3 Sessions #1MTW Nifty Synthesizer Toy Electronics (\$14.) Grades 6-9 3 mornings 9:00 -11:30 AM (Limit 6)

+ fee 2 Sessions #2M am&pm Engineering Popsicle Bridges Grades 4-9 Monday, 9:00 -11:30 AM & pt2 Monday, 12:00-2:30PM

+ fee 2 Sessions #3M am&pm Swinging Music Maker (\$15. + \$5.) Grades 4-9 Monday, 9:00 -11:30 AM & pt2 Monday, 12:00-2:30PM

Session #4T Fun With Computer Programming Grades 4-9 Tuesday, 9:00 - 11:30 AM (Limit 15)

Session #5T Beginning Chess: - Grades 4-9 Tuesday, 9:00 - 11:30 AM (Limit 10)

Session #6T Checkmate-Intermediate skill Grades 4-9 Tuesday, 12:00 - 2:30 PM (Limit 10)

Session #7T Feed Your Brain: - Math Logic Puzzlement Grades 4-9 Tuesday, 12:00 - 2:30 PM

Session #8W Let it Rain: - Environmental Problem Solving Grades 4-9 Wednesday, 9:00 -11:30 AM

Session # 9W FIELD TRIP - Brown's Lake Bog: - Grades 4-9 and parents Wednesday, 12:00 - 2:30 PM

TOTAL

\$ Registration *Early registration before June 12 is \$5 less if selecting six sessions. (Fees cover costs to AAUW)

Return by Mon., June 12, 2017 early registration \$25 + any added fee. After June 12, registration is \$30 + any fee

Parent Permission We, the undersigned, --Give permission for our child to participate in the science class activities. --Understand that neither the course instructor, nor AAUW, nor 4-H/OSU Extension, nor Delta Kappa Gamma, nor staff helping with the events of the day will be held responsible for any accidents or injuries that may be sustained by students --Grant permission of my child's activities for publicity and media purposes

MAIL

- Enclosed is my check payable to HOLMES COUNTY AAUW BRANCH
Completed and included Registration & Emergency Medical Form

Mail to: AAUW 2017 Summer Science Camp, 263 South Monroe St., Millersburg, Ohio 44654

Withdrawal/Refund: Immediately notify AAUW registration address in writing. No refund will be made after the Monday, June 26 Program start.

Signature Parent/Guardian Date (Signature required) (Questions: Call 330-674-3377)

EMERGENCY MEDICAL AUTHORIZATION

Summer Science Camp June 2017

PRINT PLEASE

Student Name Student's Home Address Emergency Contact Phone

Student's date of birth Age Grade just completed

*In case of an emergency, we will attempt to contact parents/guardian to authorize medical action for a child who becomes ill or injured during the class activity. If a parent /guardian cannot be reached, provide an alternate emergency contact person and number.

* Emergency Contact Cell Phone Number Other phone Relation
* Second Emergency Contact Phone Number Other phone Relation

MUST BE COMPLETED

Preferred Health Care Provider: Doctor: Dentist: Medical Specialist: Hospital:
Contact numbers for Doctor: Dentist: Medical Specialist:

Part 1. TO GRANT CONSENT

In the event reasonable attempts to contact me, other parent or guardian have been unsuccessful, I hereby give my consent for (1) any administration of any treatment deemed necessary by the listed doctor, dentist, or medical specialist, or, in the event the designated preferred practitioner is not available, by a licensed physician or dentist, and (2) the transfer of the child to the above hospital or any hospital reasonably accessible, This authorization does not cover major surgery unless the medical opinions of two other licensed physicians or dentists, concurring in the necessity for such surgery, are obtained prior to the performance of such surgery.

Facts concerning the child's history including allergies, medications being taken, and any physical impairment to which a physician should be alerted:

PLEASE Needed

Signature of Parent/Guardian Date

Part 2. REFUSAL TO CONSENT (Do not complete if you completed Part 1.)

I do not give my consent or emergency medical treatment of my child. In the event of illness or injury requiring emergency treatment, I wish the persons in charge to take the following action:

Signature of Parent/Guardian Date

Home Reminder Schedule **Parents provide all transportation:

Circle your choices below and save as home reminder.

We are not responsible for students after last class of each day ends.

All-day participants, bring your own lunch.

Table with 3 columns: MON. JUNE 26, 2017 9:00 -11:30; TUES. JUNE 27, 9:00-11:30; WED. JUNE 28, 2017 9:00 - 11:30. Rows include session details like Nifty Synthesizer Toy, Engineering Popsicle Bridges, Swinging Music, LUNCH 11:35 sack lunch time/Restroom Break, and MON., JUNE 26, 2017 12:00 -2:30.

Parents will provide transportation to the West Holmes High School and pick-up students at the end of the class day session.