



Q16 Youth Program

Exploring the Power and Possibilities of Radio Science

January 2016, 2015
Heather Caton W8GEM



An ARRL Specialty Convention

Revised: 22 Feb 2015.



Your Invited

Space and Radio Science Day 2016

What: Space and Radio Science Day is a day long event bringing over 10 exhibits for youth in schools and the community will have the chance to see and interact.

Where: Quartzsite Community Center: 295 Chandler St Quartzsite AZ 85346
Directions: From Main St going East, Turn Left at 95 (toward the fire department)
Chandler St will be on your Right, across from the Minors Depot. Go straight and the Big Building will be on your right.

When: January 13, 2016

Who: Youth from around the county will be participating in Space and Radio Science day. The event will be open to the communities from 3:30-6pm

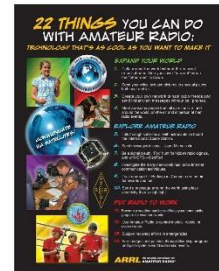
What time: We will have 2 hour sessions running from 8:30am until about 6pm. It will be open to the community from 3:30-6pm



Youth Program Goals

Students will learn about amateur radio through

- ✓ Rotating through stations that focus on different aspect of radio.
- ✓ Working with radio experts
- ✓ Transmitting over the air.
- ✓ Watching demonstrations.
- ✓ Having fun with Morse Code
- ✓ Study materials and groups.
- ✓ Watching a video
- ✓ Have fun



Participating Schools and Day Schedule

Morning: apx 137 students they will arrive at 9am and depart at 10:55

Ehrenberg: 4-8 (72)

Salome: 5-8 (51)

Wenden: 4-8 (42)

Mid-Day: apx 10 students they will arrive about 11:15 until

12:45pm (we will also have lunch at this time and it will be provided)

Ed Options program 9-12 (10)

Afternoon: apx 74 students leave will arrive at about 1pm- leave at 3pm

Quartzsite: 4-8 (55)

Bouse: 3-8 (19)

Community time: 3:30pm-6pm



Layout of the Quartzsite Community Center

Office

Bath

Bath

Kitchen

STATION #3 : Visual modes , such as live ATV , plus show visually electronic logging , and paper QSL cards . Demo SLOW SCAN TELEVISION . Show map of USA call sign areas , worldwide call sign areas , and give out charts to let students identify a station " JY1 " as they hear an audio recording .

Station 3

Station #2 : DIGITAL HAM RADIO COMMUNICATIONS
Live computers showing reception of PACKET , PSK-31 , M110A , APRS , MESH NETWORKS , RTTY , and APRS simplex to a station walking around outside the building . Then tune APRS to see weather stations , and other mobiles in the area . Finally , show off original digital communications , CW KEYS on a cloths pin , pro paddles and an electronic keyer , CW decoder , and then engage students to send their name in CW . Show phone apps that may decode CW and RTTY , and list other phone apps for ham radio .

Station 2

Station 4

STATION #4 : ON THE AIR Give students QSO cards with messages , to send (third party) to other students . Issue first contact certificates to each student who makes a two way contact . Show traffic handling techniques , Q codes , and proper language for contacts including foreign language . Review emergency comm priorities over all other radio comms .

Station #1 : HAM RADIOS Show and demo short range VHF/UHF hand helds , mobile VHF/UHF radios , and HF radios hooked into an outside longer range antenna system . Play each radio , let students talk third party , and learn what it takes , equipment wise , to get on the air . We can work up outside antennas for these stations .

Station 1

E
x
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m
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7 3 0 3 0 - 5 0 0 0 - 0 7 0 0 0

Front Door

Side Door

Side Door

Layout of the Quartzsite Community Center



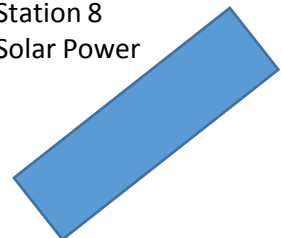
Station 5
Talking on the
Handhelds to locals

Satellite Connections
Out Side

Name in Phonetics
7

Station 6 Neil
Ham station with radio technology

Station 8
Solar Power



Youth Space and Radio Science Day 2016: Stations

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Station #5-8 : Will be outside



If you would like to be a volunteer or if you have any questions. Feel free to contact me at the below.

Organizers

Heather Caton W8GEM: Heather@w8gem.com (595)-935-1982

Gordo West: WB6NOA:

Marilynn Jordan W6MCJ

Tracy Lenocker: WA6ERA:

Neil Hays W6FOG:

THANK YOU

