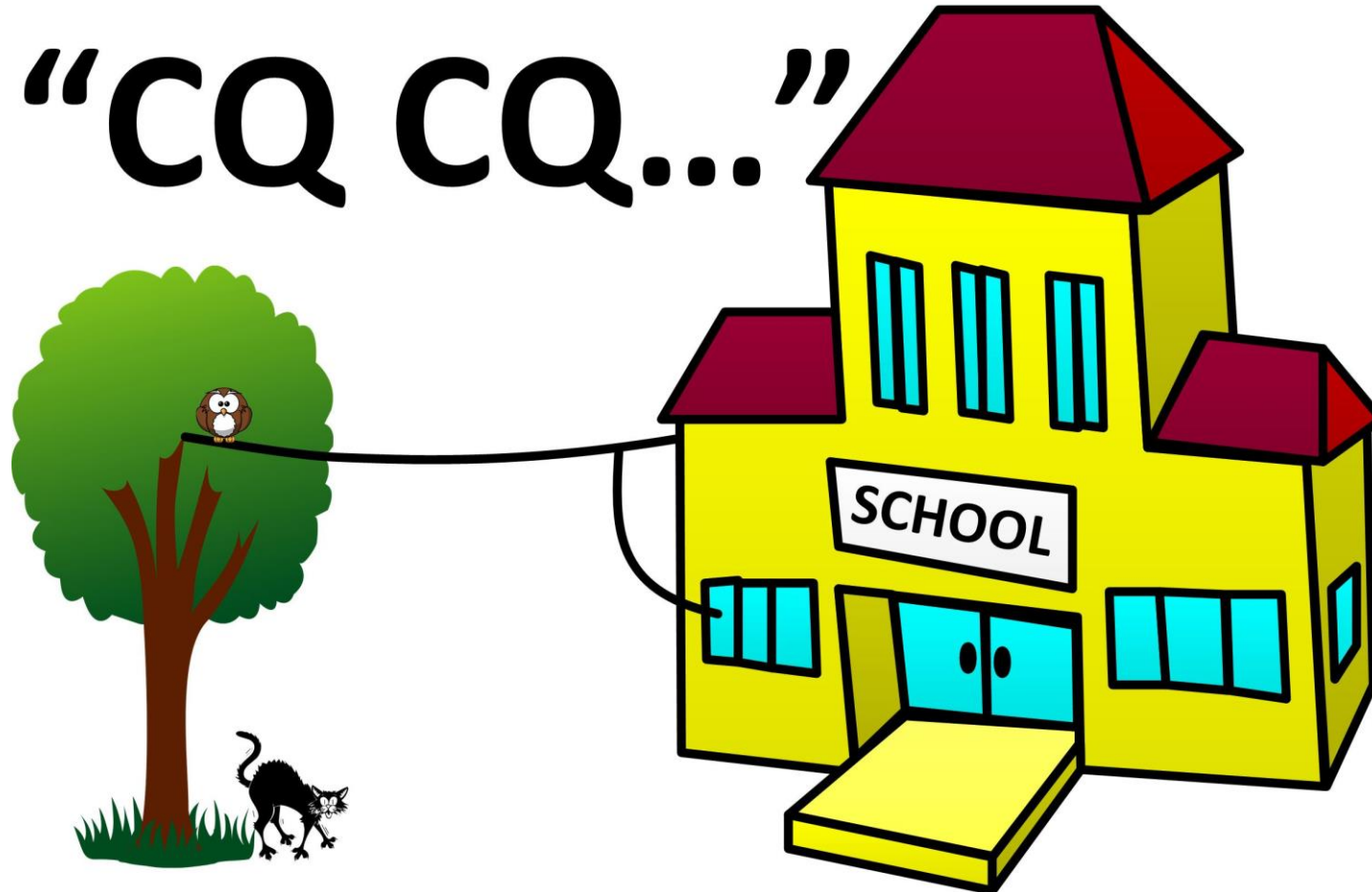


Amateur Radio for Kids

“CQ CQ...”



Presented by the **School Amateur Radio Club Network**: www.sarcnet.org

Amateur Radio for Kids

- Why should AR be interested in kids?
- What does AR have to offer kids?
- What do kids love about AR?
- What AR operators can do for kids?
- What AR clubs can do for kids?
- What the WIA can do for kids?

Why should AR be interested in kids?

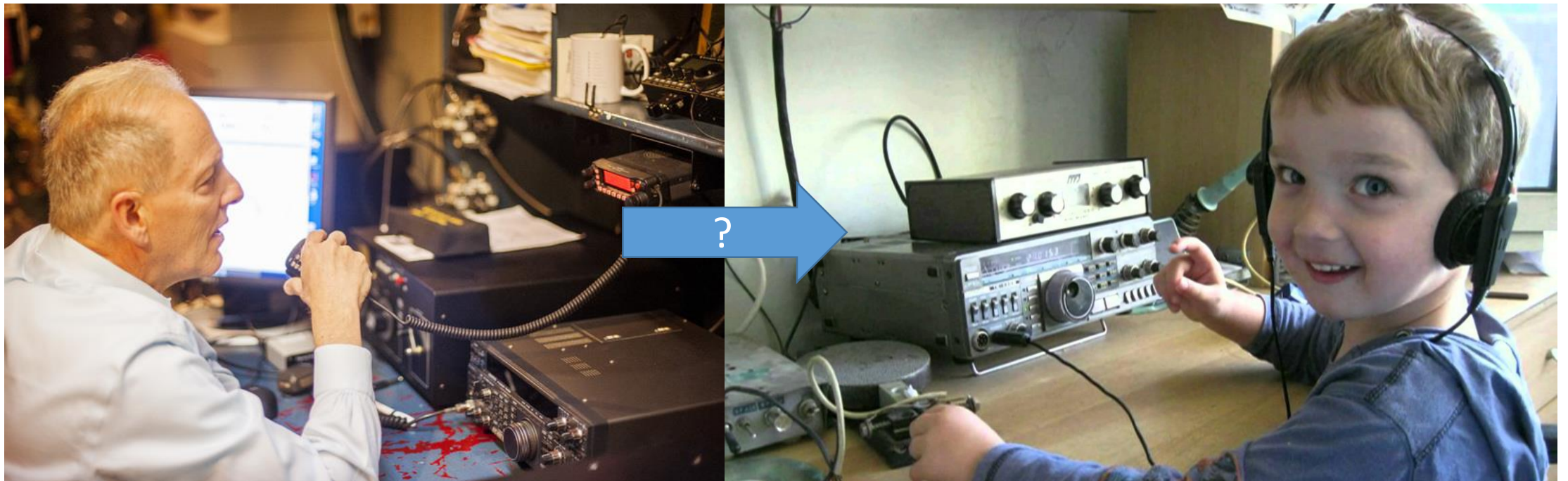
As Amateur Radio enthusiasts it is time to ask ourselves these important questions:

- We are not getting any younger: What happens to all our experience and skills?
- We have achieved so much in our lives. What are we supposed to do next?



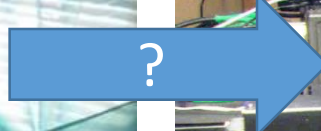
Why should AR be interested in kids?

- Who will keep our bands alive and carry on our great hobby?
- How will our radio clubs and societies survive with fewer members?
- Where will new Scientists, Technicians, Engineers, Mathematicians come from?



Why should AR be interested in kids?

- Are we still pioneers, innovators and steely-eyed radio men and women?
- Are we still interested in our youngsters, environment, community and country?
- Are we still young at heart and ready to try out something new?



What can AR offer to kids?

- AR is a historically significant and respected hobby: Enjoyed by millions.
- AR promotes technical self-education and home equipment construction.
- AR provides training in on-air and emergency communications procedures.



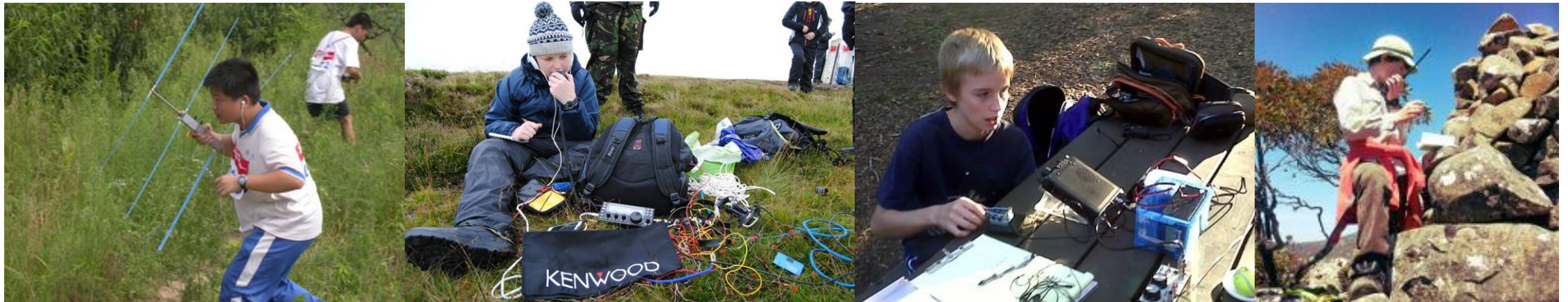
What can AR offer to kids?

- AR has active, community-based clubs of radio enthusiasts.
- We were the first “makers” and “hackers”, building our own transmitters from junk.
- AR clubs have regular meetings, guest speakers, newsletters, social activities, annual conventions, training courses, field-days and ham-fests.
- AR clubs provide free community support and free emergency communications.



What can AR offer to kids?

- AR has challenging international contests and radio sports like: ARDF, SOTA and WWFF.
- AR has books, magazines, websites, blogs and videos to learn new skills and whet their appetite for more.
- AR combines diverse technologies, like vacuum tubes and transistors, and has specialist interest groups like: EME, ATV, QRP, DX.



What can AR offer to kids?

- AR is more than a licence to communicate, it is a licence to have a conversation with other people from all walks of life, without any introductions and as equals.



What can AR offer to kids?

- AR promotes communication skills, dialogue and international good will.



What can AR offer to kids?

- AR is a gateway for kids to get into STEM and higher education.
- AR permits scientific experimentation leading to technical innovation.
- AR promotes the environment including recycling and repurposing of electronics.



What kids love about AR

- Being part of their own special club.
- Working together with a group of peers their own age.



What kids love about AR

- Tuning into and listening to far-away stations through the “snap, crackle and pop” of shortwave radio.
- The mystery of who you will contact next and where they might be.
- The satisfaction of doing it by yourself, with your own equipment.



What kids love about AR

- AR callsigns, “secret” codes, alphabets, jargon and official on-air procedures.
- Morse code games, chasing SOTA and WWFF contacts.



What kids love about AR

- Tracking AR satellites.



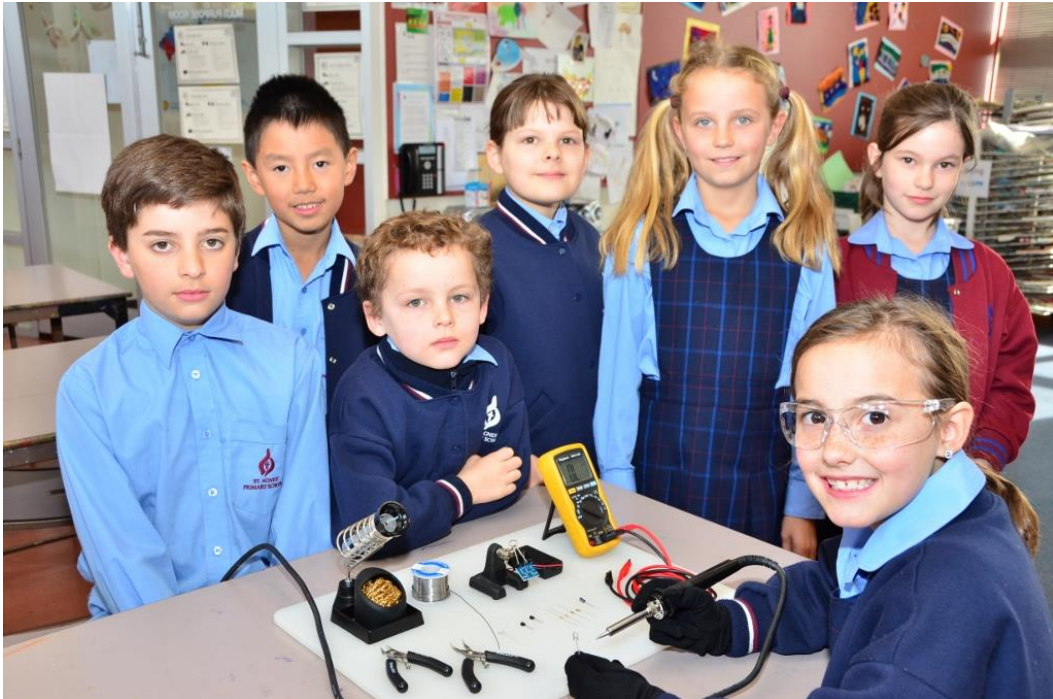
What kids love about AR

- Using AR digital modes and computer-based AR applications.



What kids love about AR

- Hands-on assembly, soldering and prototyping of their own electronic circuits.
- Equipment deconstruction: Pulling things apart to see how they work.
- De-soldering and component reuse.



What kids love about AR

- Hidden transmitter and RF Interference hunts.



What AR operators can do for kids

- Reach out to younger family members and children of friends and neighbours.
- Promote ham-shack special events: Entertaining DX nights, youth on-air skeds etc.



What AR operators can do for kids

- Organise radio and electronics home construction nights.



What AR operators can do for kids

- Set up a portable station for school, church and community events with activities and prizes.
- Operate portable in parks, summits, lighthouses and museums and get kids on the air.



What AR operators can do for kids

- Get a Working With Children Card and reach out to schools, Scouts and other community youth groups.
- Write magazine and newspaper articles about your own “AR for kids” experience.

Education TODAY

School amateur radio is set for a comeback with SARCnet

ET Staff



Veteran Amateur Radio enthusiasts Julie (VK3FOWL) and Joe (VK3YSP) Gonzales are on a mission - they want Australian primary school children to discover the fun of making contact with radio enthusiasts around the world, while stimulating their interest in science and technology.

In today's world of broadband networks and social media, amateur radio might seem 'last century' but according to the Gonzales there are amateur radio enthusiasts in every community that are eager to share their expertise with schools.

Michael Day, Principal of St Kevin's Primary School in Ormond is an enthusiastic supporter. Last year his school was one of the first three primary schools in Victoria to start an amateur radio club.

He said "When I first introduced the school's Amateur Radio Club I had no idea what a success it would be. We were lucky to have an amateur radio enthusiast within our ranks and the introduction was driven by this member of staff.

"The teachers, parents and students are now raving about it. To see the children confidently building electronic kits or talking to other schools over shortwave radio is quite incredible."

While the purpose of Amateur Radio is largely self-education and technical experimentation, many operators around the world form long-term friendships thereby fostering international good will.

Historically, strict licensing requirements discouraged participation but that changed recently and, with simplified licensing, low-cost equipment and no minimum age requirement there has been a resurgence in participation.

Unlike 'Citizens Band' all amateur radio operators are licensed and must identify themselves using their individual call signs.

Amateur radio communications is subject to the *Radio Communications Act* and is regulated by the Australian Communications and Media Authority thereby providing an open, safe and friendly environment for adults and children.

"School amateur radio clubs used to be far more common than they are today," Joe Gonzales says. "They were once a refuge for students who didn't quite fit in to the often-competitive, sports-orientated, mayhem of school lunchtimes."

"They were a haven for all those with an interest in 'pulling things apart to see how they work', 'just tinkering around with stuff' and 'seeing what will happen if I do this.' Of course the students didn't know it then, but they were developing all the skills needed for a career in science and technology."

"When there was a minimum age requirement and difficult operator qualifications needed just to obtain a licence, amateur radio was clearly not for kids. But times have changed with the introduction of the Amateur Radio Foundation Licence, so there are many new opportunities children as young as nine years have obtained a foundation licence."

So what does it take to interest primary school students in amateur radio these days? For a typical group with enquiring minds and not much else to do at lunch time, surprisingly very little. For a start they are way smart enough to realise this is a whole different thing from mobile phones, social media and the internet.

Gonzales again: "When they first hear the voices of far-off stations through the crackling sounds of shortwave radio they realise they are very privileged to be listening to a larger world. You can tell when they tentatively ask 'Can we talk to them too?' And they are always

simultaneously amazed, excited and a little terrified at the response: 'OK, why don't you try?' Without exception the look on their faces, when a station first acknowledges their name over the air, has to be seen to be believed. From that point on they are hooked."

"There is technically a lot to know about having a two-way amateur radio contact. The students learn about station call signs, when and how to use them and what each part of a call sign signifies. Making a call, answering a call, giving signal strength reports and calling CQ to all other stations, are all drills that the students practice before getting on the air for the first time."

He encourages schools interested in starting a radio club to look for a local amateur radio operator willing to commit to regular club sessions at the school and to work with them to establish the club, buy some basic equipment and set up an antenna.

Next comes the fun of completing a six-week training program during which they become proficient in the technical aspects of radio and learn the protocols of making contact and talking to enthusiasts on the other side of the earth.

"Our vision is that one day school amateur radio clubs will enjoy many of the benefits that other clubs take for granted like having their own regular on-air net (SARCNET), contests, hamfests, field days, conferences, newsletters; even a regular column in *Amateur Radio* magazine."

"We firmly believe that the children will change the face of Australian amateur radio."

Schools interested in starting an amateur radio club should start with a visit to www.sarcnet.org

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Amateur Radio

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www.wia.org.au



Radio active for ANZAC Day

Scouts and SARC join forces to involve youth

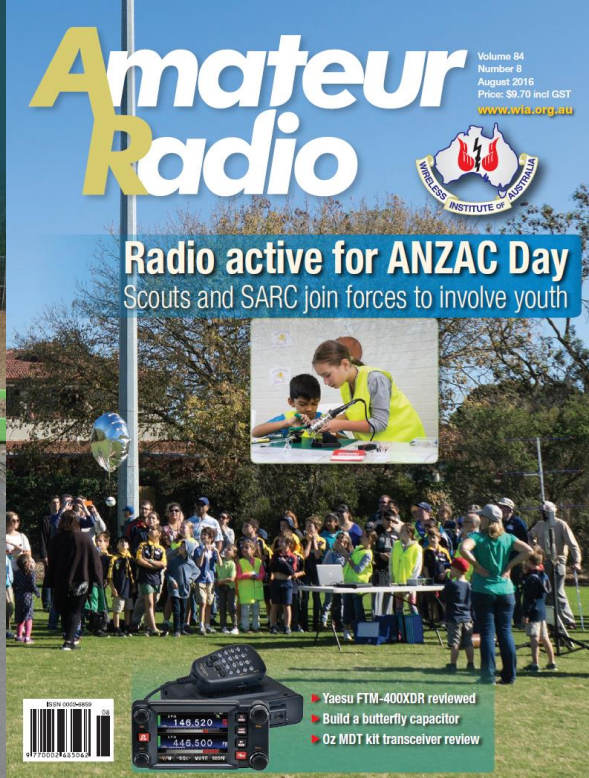
Mini satellite antenna rotator

- ▶ FTM-100DR review
- ▶ Battery experiments

Barcode: 9500-000000-15

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Radio active for ANZAC Day

Scouts and SARC join forces to involve youth

Yaesu FTM-400XDR reviewed

- ▶ Build a butterfly capacitor
- ▶ Oz MDT kit transceiver review

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Radio active for ANZAC Day

Scouts and SARC join forces to involve youth

- ▶ Digital transmissions - Be clean
- ▶ Why 50 ohms?
- ▶ Wilderness solar power

Engaging students

- ▶ School ARC
- ▶ Science Week

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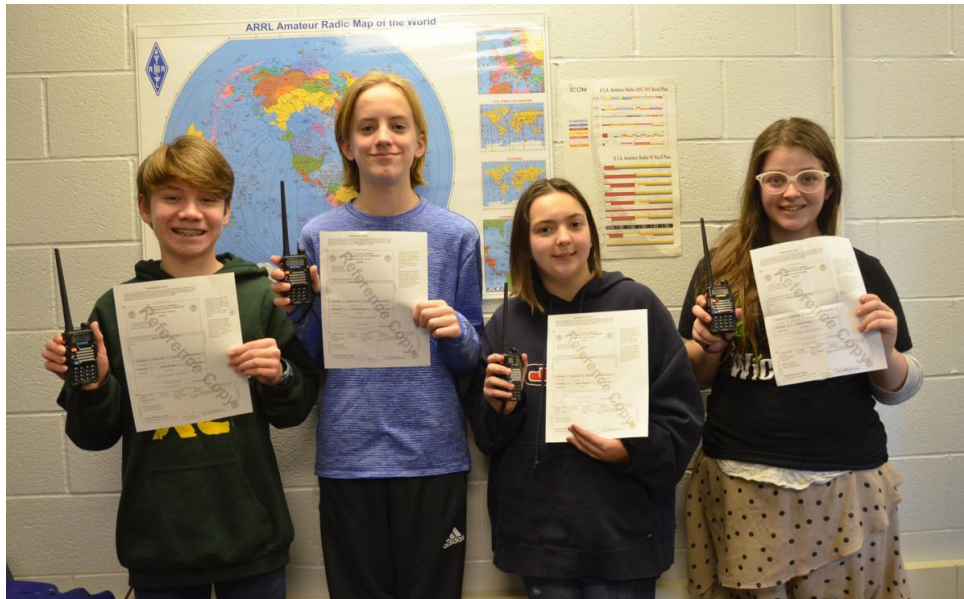
What AR operators can do for kids

- You need to give out praise and encouragement in spades, take regular breaks and vary the activities.
- Remember it is not about you and what you can do: It is all about the kids.



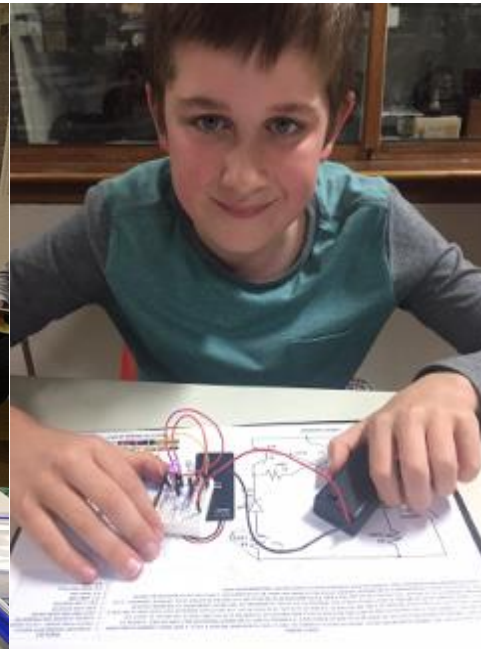
What AR clubs can do for kids

- Establish a youth membership policy (free to under 18s, no licence required).
- Establish a weekly youth programme.
- Establish youth special interest groups and activities.
- Establish a position for youth members on the committee.



What AR clubs can do for kids

- Start a free weekly youth workshop: Advertise it at locals schools, libraries, shops and newspapers.
- Have equipment construction and deconstruction nights. Create club youth projects.



What AR clubs can do for kids

- Participate in National Science Week and local Science Fairs.
- Setup youth exhibitions with kids promoting AR.



What AR clubs can do for kids

- Organise youth field trips (with parents) for SOTA, WWFF, Field Day Contests etc.
- Provide free out-door AR activities for school excursions.
- Provide an AR High Altitude Balloon launch, UAV repeaters or Satellite Tracking outdoor events in parks.



What AR clubs can do for kids

- Start a club youth program with on-air contests with awards for participation.
- Reach out to schools, Scouts, CBers, Makers and other youth community groups.



What AR clubs can do for kids

- Establish a School Amateur Radio Club, roster your members to support it and raise money for school equipment.



What AR clubs can do for kids

- Promote the environment: Recycling and repurposing waste electronics.
- Ban lead solder today! It is bad for your health and the environment.
- Advertise your club Foundation Licence courses at schools, libraries, newspapers.



What the WIA can do for kids

- Establish national guidelines for AR club youth programs
- Promote and sponsor AR club or individual AR youth programs
- Establish national AR Youth On The Air contests
- Establish a regular youth column in AR magazine
- Establish a WIA youth committee chaired by a youth member
- Establish a position for youth membership on the WIA board

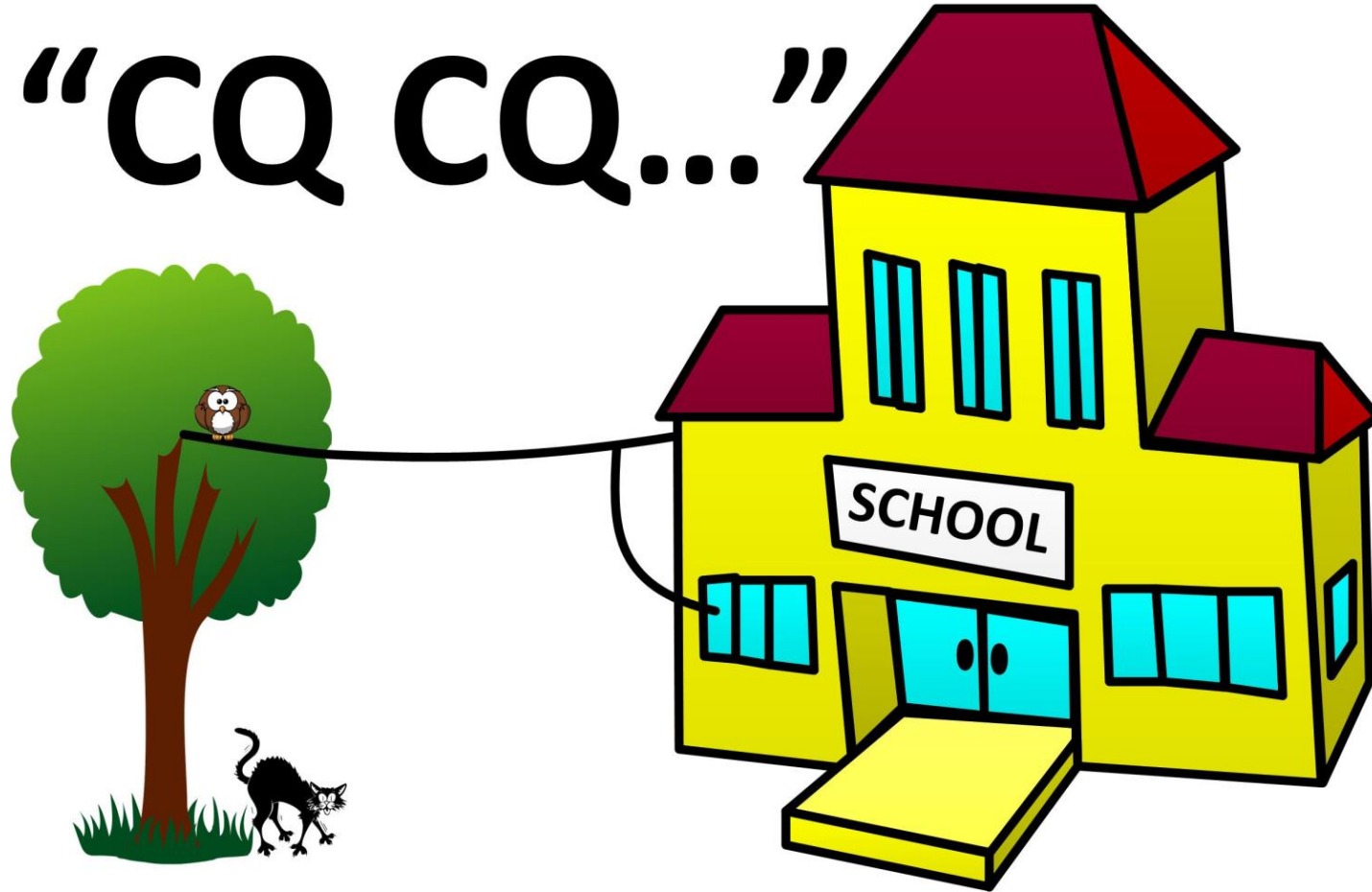
The future of AR and kids is in your hands

- Ask yourself:
 - Are you proud of what you have achieved?
 - Who first influenced your interest in science and technology?
 - Who introduced you to Amateur Radio?
 - How old were you, then?
 - Did it change your life?
- What will you do now?
- What will your club do now?
- What will the WIA do now?



The End – Thank You!

“CQ CQ...”



SARCNET – VK3SRC website: www.sarcnet.org email: info@sarcnet.org