

ONLINE RESOURCE LIST

- List of YT channels:

- 3b1b

- The most unexpected answer to a counting puzzle (pi block collisions)

- <https://www.youtube.com/watch?v=HEfHFsfGXjs>

- TedxTalk

- https://www.youtube.com/watch?v=s_L-fp8gDzY

- Comments:

- Best of all, extremely clear, extremely motivating (see below), great animations and visualizations, literally all his videos are great pieces of maths and art
 - What is the motivation to do maths, and what makes people engage? Application, challenge, beauty (for its own sake)

- Veritasium

- The Most Controversial Problem in Philosophy (princess problem)

- <https://www.youtube.com/watch?v=XeSu9fBJ2sl>

- What Game Theory Reveals About Life, The Universe, and Everything

- <https://www.youtube.com/watch?v=mScpHTli-kM>

- The Surprising Secret of Synchronization
<https://www.youtube.com/watch?v=t-VPRCtiUg>
- Comments:
 - Extremely engaging, usually brings people in and interviews professional mathematicians in his videos, more driven towards applications and more general sciences compared to 3b1b
 - Numberphile
 - AtypicalQuant
 - Tibees
 - Mathologer
 - Matt Parker (standup maths)
 - Spectral collective
 - Michael Penn
 - Femafricmaths
 - Up and atom
 - Other material:
 - “Math with Bad Drawings” and “Math Games with Bad Drawings” (book)
 - Brilliant (app/website, you can get premium accounts also for education)
 - HackerRank and Leetcode (websites to learn coding)
 - Kaggle (website to learn data and ml tools)
 - Advent of Code (on every year 1-25 December, two coding puzzles each day)
 - Maths Olympiads and Informatics Olympiads (with answers!)

- Kangaroo
<https://mathkangaroo.org/mks/practice/pdf-exams/> (and solutions)
- Maths Olympiads of different countries (just google some websites)
- Ghana Olympiad Academy
<https://www.ghanaolympiadacademy.com/Home.html>
- Encyclopaedia of numbers <https://oeis.org/> (it's a cool website, you enter the first few numbers of a sequence and it spits out the known sequences that continue the head of the sequence)
- ChatGPT
- Turtle, Scratch (we learnt about them during the camp)
- Coursera (a lot of free courses on so many science topics)
- CodeAfrique
https://codeafrique.org/index.html#about_us