

**SPACE JAM 18 Prerequisites list, we hope all Scouts are prepared so every Merit Badge is a completed Merit Badge!**

**It is recommended that all Scouts at Space Jam have their Cyber Chip**  
<http://usscouts.org/advance/cyberchip.asp>

Scouts need an email, that is not a school account, though some systems will require a school account to get the software. Scouts should be proficient with ZOOM. Practice using ZOOM with a family member (during COVID most schools had Zoom accounts for all the students, so Scouts probably know it will.

Scouts will need a computer (laptop) with a mic and video camera, mouse and internet connection.

**Credit for prerequisites only by written verification by adult leader.**

**Please** read the merit badge pamphlet for all merit badges you plan to take, though not required, this is advisable and highly valuable. Simply Google Search the “name of the merit badge” a space then “Pamphlet” several troops have them on the web, you might need to look for the list till you find the full thing. A few are sideways and you need to click the rotate icon to get them right. Use of merit badge worksheets is encouraged.

Below is a listing of all prerequisites (in alphabetically order; not listed, there is no pre req’s):

**Animation with Unity 3D** – download and install the Unity Personal, we will be using this in the class. <https://store.unity.com/#plans-individual> its free get the student version (have your parents read the terms, as it calls for you to be 16, or the personal version. You need Unity installed for the badge.

**Art Merit Badge** – We will be using two programs, please download the one and set up an account with the other. Watch a few tutorial videos to help speed things along. <https://www.gimp.org/downloads/> Gimp is a free tool to edit photos and create pixel art work (like Photoshop, but free. Click on the tutorial tab to start your learning). THEN create a free account on <https://www.figma.com> we will create logos with this program.

**Aviation Merit Badge** -- 4a. Visit an airport. 3a Build a model airplane or b. Build a glider and have a competition.

**Chemistry** – 2 ltr Pop bottle with cap and an eye dropper

**Citizenship in the Nation** - Write a letter to your congressperson.

**Communications** – 5. Attend a public meeting: city council, school board, debate are good. 8. Plan and Serve as master of ceremonies.

**Digital Technology** - Have an up-to-date Cyberchip. Have access to a Gmail account (one you can log in to).

**Electronics** - sign up for a [www.tinkercad.com](http://www.tinkercad.com) account, it is free. Having a laptop with a 2nd monitor would be awesome but not needed.

**Genealogy** – With your parent, (this is optional) Download and install the MyHeritage free Family Tree Builder. Start your tree <https://www.myheritage.com/family-tree-builder/> A parent should be involved in this process. (You don't have to do this, and you can do it manually).

2a: do a timeline yourself or relative.

3: choose a relative or family acquaintance you can interview in person, etc. record the information you collect so you don't forget it.

6: begin a family tree...we will talk about it in the session

**Graphic Arts** – We will be using two programs, please download them and watch a few tutorial videos to help speed things along. <https://www.gimp.org/downloads/> Gimp is a free tool to edit photos and create pixel art work (like Photoshop, but free. Click on the tutorial tab to start your learning).

<https://inkscape.org/release/inkscape-0.92.3/> Inkscape is vector drawing tool (like Illustrator, but free, Click on LEARN tab and then tutorials). You will need access to a Printer (The MB has you print 50 copies of your creation).

**Inventing** – We will be modeling an invention in Fusion 360 Computer Aided Design program.

<https://www.autodesk.com/products/fusion-360/personal> download and install the personal use (or you may have an educational use already – requires a school email address) we recommend the personal use version. Use your Gmail account email address. There is a pop-up that could block your download, just click on No Thanks... and you will be back to the download page.

**Health Care Professions** -- # 9 With approval of your counselor and parents/ guardian, serve as a volunteer at a health related event or facility in your community (e.g. blood drive, health fair, blood pressure screening event). Report to your counselor what you did and learned from the experience.

# 8. Identify a medical advancement or discovery that has been in the news recently. Discuss with your counselor how this can affect patient care.

# 5 Select one career from any of the lists in Requirements 1, 2, 3, or 4 and arrange to visit that professional at their workplace. Discuss with your counselor the following:

- a. Why did they choose their particular career?
- b. What do they most like about their job?
- c. What are their biggest challenges in doing their job?
- d. Identify the tools/instruments that may be used in their jobs.
- e. What has been the most surprising aspect of their career?
- f. What continuing education requirements are required to maintain certification?

**Movie Making** – Scout can use a cell phone for video making, they will need a cable to move videos from the phone to the computer. This can be done with a Google Account that syncs too. The video editor we will use is Davinci Resolve 18.6, it is a professional editor and available for free here:

<https://www.blackmagicdesign.com/products/davinciresolve> There is a download for Windows, Mac OS X and Linux. Note we are not using the beta 19 version. You could use Apple's video editor or any other, but we will be going over Davinci.

**Radio Merit Badge** – do #8, Find out about three career opportunities in radio. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, explain why this profession might interest you.

**Signs, Signals and Codes** -- Nautical Flags <https://sailingfortuitous.com/spell-things-with-flags/> Morse Code <https://justlearnmorsecode.com/> and <https://www.arrl.org/learning-morse-code> American Sign Language <https://www.handspeak.com/> a few resources for you class. #7 On a Scout outing, lay out a trail for your patrol or troop to follow. Cover at least one mile in distance and use at least six different trail signs and markers. After the Scouts have completed the trail, follow no-trace principles by replacing or returning trail markers to their original locations.

**Sculpture 3D printing** - Download and install Blender at <https://www.blender.org/download/>

#### **ALL DAY CAREER PATH CLASSES:**

**Electronic** – Create an account for <https://www.tinkercad.com/>

**Computer Aided Design** – Create an account and install Fusion 360 for personal use.  
<https://www.autodesk.com/products/fusion-360/personal>

**Programming with Python** -- install the following libraries and Python.

Python 3.11 <https://www.python.org/downloads/release/python-3110/> use the recommended one for windows and the MacOS for Mac Once Python is installed you can “pip install all the other libraries”

Jupyterlab      pip install jupyterlab      Numpy      `pip install numpy`

Scipy      pip install scipy      Pandas      pip install pandas

Matplotlib      pip install -U matplotlib      Rebound      `pip install rebound`

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