Welcome! This one-pager serves as a reference to help you complete the stations for the “Get to Know Nuclear” Patch. The patch is sponsored by the American Nuclear Society (ANS). ANS is a professional society whose mission is to advance nuclear science and technology by facilitating connections, exchanging knowledge, and engaging communities. All of the information you need is included on the ANS website in this link <http://nuclearconnect.org/know-nuclear/talking-nuclear/girl-scouts-get-to-know-nuclear-patch>, which also provides additional resources to learn more about nuclear science. The patch is distributed by ANS and can be purchased through this link (please note this link is different than the link on the ANS webpage). <https://www.ans.org/store/item-750082/>

In order to make it easier for Girl Scouts to earn the patch, the DC Chapter of U.S. Women in Nuclear (DC WIN) has put together videos of some of the stations. U.S. WIN chapters around the country provide outreach in their communities to enhance understanding and awareness of nuclear technologies, support women in STEM, and create professional development opportunities and networking for career advancement. If you are interested in learning more, please check out the U.S. WIN website here <https://www.winus.org/>.

We recommend that your Girl Scout troop watches our DC WIN virtual stations and replicates the experiments themselves, where possible. Below is a Materials List to go along with DC WIN’s videos. If you have any questions or challenges, please reach out to Michelle Honcharik ([fallproduct7017@gmail.com](mailto:fallproduct7017@gmail.com)). We hope you have as much fun as we did putting these together for you!

**Materials Lists – See patch videos here:** [**https://www.youtube.com/playlist?list=PLszeTKjWVBiYN7jIHh9JhQd56vpL7tLIi**](https://www.youtube.com/playlist?list=PLszeTKjWVBiYN7jIHh9JhQd56vpL7tLIi)

Station A – Half-Life Demonstration with M&M™ (DC WIN video available)

* Large bag of M&Ms
* Paper
* Ziploc bags or bowls
* Pen, pencil, or marker

Station B – Fission vs. Fusion with Marshmallows (DC WIN video available)

* Marshmallows (mini marshmallows work best, multicolor or white will work)
* M&Ms or small pieces of pasta
* Periodic Table <https://ptable.com/?lang=en#Properties>

Station C – Careers in Nuclear (DC WIN video available and ANS brochure for discussion)

Station D – Detecting Radiation (DC WIN video available)

* Watch video with Geiger counter and/or estimate personal annual radiation dose using chart <http://nuclearconnect.org/wp-content/uploads/2015/10/Radiation-Dose-Chart_web.pdf>

Station F – Modeling an Atom (DC WIN video available)

* Scissors
* Thread or string
* Printout <http://nuclearconnect.org/wp-content/uploads/2015/01/3d-the-anatomy-of-an-atom.pdf>

Station G – Nuclear power plant or lab tour (see DC WIN printout for video links)