

Name _____

Spectrum Users



- Write the frequencies for the peaks identified during the scan below (one on each line). Then work with your group to identify the business or government agency that broadcasts on that frequency. There will likely be some frequencies that do not have published owners. We will address these frequencies later in the lesson.

Use these web pages to identify the broadcaster. Hint: You may also need to investigate the counties around your county, depending on how far your school is from those locations.

<https://radio-locator.com/>
scannerfrequencies.com/

Only use the rows that you need. It is okay to leave some blank. Alternatively, create another table on notebook paper if you have additional frequencies.

Frequency	Broadcaster	Availability (day, evening, both)

Conclusions

1. Were some of the broadcasts only detected at certain times? Which ones?
2. Now that you have identified the broadcasters, can you determine why a signal appeared when it did?
3. Looking at the list of broadcasters in the table above, which group (private businesses, government, or public safety) occupies the largest segment of the spectrum in your area? Which occupies the least amount of spectrum?
4. There are a lot of devices, referred to as unlicensed, that produce low-power radio waves. These devices are one of the causes of the noise that appears on the waterfall. Working as a group, research what devices create these waves and create a list below.
5. As you can see from your list above, there are a lot of devices that produce low-power radio waves. Which ones do you think are most common in your area? What did you base your decision on?

6. Position Paper

You have investigated the users of the spectrum in your area. Which user do you think is most important? This is the one you think should be given the most spectrum to use daily. Make a case for your choice. Why should that user be given priority above the other users? Use evidence to support your claims.

This paper should be a minimum of two pages. Using persuasive writing to convince the reader that your claims are valid would be best. This paper will be graded based on content as well as style.

Photo of person with radio provided by pxfuel (<https://www.pxfuel.com/en/free-photo-emphd>), Photo of antenna provided by pixabay (<https://pixabay.com/photos/tower-mast-transmitter-vykr%C3%BDva%C4%8D-4189211/>), Picture of portable radios provided by pixabay (<https://pixabay.com/vectors/radio-transmission-portable-295182/>)

