

# How radio waves changed the world project

Name: \_\_\_\_\_ Per: \_\_\_\_\_

Radio Waves Application	
<b>Objective:</b>	<ul style="list-style-type: none"> <li>● Students will be able to distinguish between a credible and non credible source by completing a worksheet.</li> <li>● Students will use logic and evidence to construct arguments about how their application of radio waves would be the most beneficial for society.</li> <li>● Lastly, students will create the most engaging and persuasive argument about the applications of radio waves through a digital platform and oral presentation.</li> </ul>
<b>Task:</b>	<p>The National Science Foundation just announced that they have extra funding to support new advancements in radio wave applications. Your job is to choose one radio wave application that your team strongly believes needs the grant. Your team needs to research and cite evidence that builds a strong argument why your radio wave application should be chosen for the special funding. Your team will compile essential information to create an astounding and beautiful presentation through Google Slides, Prezi, Adobe Spark or another platform. In addition, your team will have 3-5 minutes maximum to persuade the panel (teacher and class) why they should be chosen to receive the grant in an oral presentation.</p>
<b>Video Time:</b> Watch the YouTube video. Write down at least 5 main ideas.	<p>Can you call a cell phone in the microwave?  <a href="https://www.youtube.com/watch?v=ot4_jVFXxUU">https://www.youtube.com/watch?v=ot4_jVFXxUU</a></p> <ul style="list-style-type: none"> <li>●</li> </ul>
<b>Radio Wave Applications:</b>	<p>-You can have a maximum of 4 people in your team.</p> <p><b>Teammate names:</b></p> <p><b>Team Company Name:</b></p> <p>Below are the radio wave application topics you can choose from.</p> <ul style="list-style-type: none"> <li>● Cellular Network</li> <li>● Remote Controlled Devices</li> <li>● Ship Navigation/Submarines</li> <li>● GPS Systems</li> <li>● Navigation and Air Traffic Control</li> <li>● Military Communication</li> <li>● MRI/Tire Pressure Sensor</li> <li>● Radio Broadcasting</li> <li>● RADAR</li> <li>● Radio Astronomy</li> <li>● Satellite Communication</li> </ul>

- Radio Telemetry

As a team, select your top 3 choices.

The teacher will use a number generator to determine which team gets to choose their topic first.

### Research Time

You will now have two periods to research how your radio wave application works and how it helps the community. Your job as a team is to use the resources provided and to find additional resources to explain how radio waves have changed and improved society through their applications.

You will present your findings by choosing to create either a Google Slides presentation, Prezi, Adobe Sparks or other digital platforms. Your team will have 3-5 minutes to present your informative and engaging presentation to the class (the panel).

**Use the checklist below to make sure you have all the requirements for your presentation.**

- Must have at least 25 slides
- You can only include one video so please choose wisely and it cannot be longer than 1 minute. The time of the video also will not be counted towards your presentation.
- Use pictures and graphs as appropriate to help illustrate your point
- Each slide should have information that is logical and relevant to the heading
- Make sure you do not have too much or too little text on a slide
- The font of the text should be easy to read and in a visible color that is not glaring
- Try to add a picture per slide if possible
- Do NOT read off your slides
- Adding animations for each idea may also help to transition the information more smoothly
- *One slide of your presentation also will be dedicated to spotlighting a scientist that is a minority or a female that has dedicated their research to changing the world.*
- Don't forget to thank your audience
- Works Cited Page with a minimum of 5 credible sources in MLA format should be your last slide

**Research Questions:**

**\* To hold each team member accountable you must designate one color font for each person.**

**For example, John will type in blue. Annie will type in red.**

<b>Name:</b>	<b>Color:</b>
<b>Name:</b>	<b>Color:</b>
<b>Name:</b>	<b>Color:</b>
<b>Name:</b>	<b>Color:</b>

**Your radio wave application is** \_\_\_\_\_

Guided Questions to

**I. What does your radio wave application do? Provide an**

answer.

Below are a few websites you can use.

1. <https://www.nationalgeographic.com/search?q=radio%20waves&location=srp&type=manual>
2. <https://www.nasa.gov/>
3. <https://public.nrao.edu/>
4. <https://www.sciencenews.org/topic/science-society>

If you use other resources don't forget to include the websites in a work cited page in your final product in the last section.

**introduction about its uses and discovery.**

2. **How does your application use radio waves to work?**
3. **How much does it cost to build your radio wave application?**
4. **What are the health effects of using your radio wave application on humans or animals?**
5. **Are there any environmental impacts that could occur from using your radio wave application?**
6. **How does your radio wave application help the community and society be better?**
7. **What makes your radio wave application more unique and special than other current radio wave applications out there?**
8. **Are there any other interesting facts that you would like to add about your radio wave application?**

## Scientist Highlight

### Explore Time:

Choose one scientist that you would like to highlight in your presentation.

- Don't forget to cite your resources at the end.

→ **Special highlight:** One slide of your presentation will be dedicated to spotlighting a scientist that is a minority or a female that has dedicated their research to making the world better. You may choose one of the names below to showcase or propose another name too.

- ❖ Hedy Lamarr
- ❖ Joan Clarke
- ❖ Margaret Geller
- ❖ Lene Vestergaard Hau
- ❖ Rachel Carson
- ❖ Grace Hopper
- ❖ Maria Klawe
- ❖ Ellen Ochoa
- ❖ Lydia Villa-Komaroff
- ❖ Virginia Holsinger
- ❖ Wu Chieng Shiung
- ❖ Elizabeth Alexander

In one slide, please provide a brief summary about the scientist, their contribution, a picture, interesting facts, and any special recognition or awards they have received. Lastly, add a comment why you chose this scientist to spot light.

- Type in any notes you want to add here

## Pictures for your Projects

### Additional Notes:

- Don't forget to cite your resources at the end.

Pictures?

- 
- 

Add any additional notes?

- 
- 

## Citations

### Works Cited Page

You need to have a minimum of 5 credible sources in MLA format.

Reminders:

- Websites ending in .edu or .gov
- No social media or Wikipedia

Free Resources for MLA

citation:

X

[Scribbr](#)

X

[EasyBib](#)

X

[Citation Machine](#)

- Professionally created videos
- Scientific Articles or Journals
- National Geographic or similar organizations

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.