

WINTER HOLIDAY SCIENCE PROJECT

Grade 7 Sound and Hearing



Your task is to put together an informative poster that shows how sound is used by all life on Earth.

Week to be completed in:	Instructions	I have completed it
Week 1	The snapping shrimp <i>Alpheus japonicus</i> , a Crustacean that can be found living in the Pacific coasts of Panama is the noisiest of all sea creatures and can immobilize small fish with its high pitched frequency. Research the sounds that marine life use and what they use it for. (Some Ocean living birds also use aquatic sound)	
Week 2	Big Ben chimes can be heard throughout London. Use illustrations (fully annotated) to explain how this happens. Think about what happens to the sound as it travels. How long do you think the sound can be heard for and by who?	
Week 3	Sound can be harmful to humans' delicate eardrums. How can sound damage our hearing and what types of sounds do this? Provide images or illustrations that are annotated.	

Final hand in date: 5th January 2020

OR you Can choose a project(IN PHYSICS) from the sites below.

WINTER HOLIDAY ASSIGNMENT PROJECT STEPS

1. Visit the websites below and **choose a topic of your choice**. Be sure it interests you and it can be done by you. Don't pick one because you think it will be easy.

<https://www.sciencebuddies.org/science-fair-projects/project-ideas/list>

<http://www.education.com/science-fair/middle-school/>

2. State your purpose as a question. What is it that you want to find out by doing this project?

3. Research your problem. Look at any books/websites that might help you, make observations by simply looking at things, talk to people, and find out as much as possible about your topic. Write down any ideas you have and where you got them. Also, keep note of all information needed for citing your resources.

4. Form a hypothesis. What do you think is going to happen? Based on what you know or found out from step #3, what do you think the results of your experiments will be? After doing the experiments, it may turn out that your guess was wrong. It is okay if this happens.

5. Plan your project. How will you test your hypothesis? What experiments will you do? How will you measure the results? Where will you keep your information? Be sure to keep notes and write down everything you do and what happens.

6. Collect all your materials. Find a place to keep things where others won't bother them. Let other family members know what you are doing so they do not throw your materials away by mistake.

7. Conduct your experiments. Remember, the more times you do an experiment the more reliable and accurate the results will be. Do each experiment at least three times and get an average of the results for your graph. Use something to measure your experiments: a ruler or yardstick if you are measuring distance, a clock to measure time, etc. Check the measurements to be sure you are correct.

8. Record your data. As you do your experiments, you will want to write down what you saw or found out. Organize this information in an orderly manner. Put the date, time, and any other useful information. Write your measurements clearly.

9. Draw conclusions. What did you learn from your experiments? Have you proved or disproved your hypothesis? You made a guess about what you thought would happen. Now tell what really did happen. You don't lose points if your guess turned out to be wrong.

10. Prepare your titles, charts, graphs, drawings, and diagrams. Make them large enough to see, neat, and colourful.

11. Construct your science project display. can show all your work and have your hands free to point to sections when you give your presentation.

12. Prepare and practice your presentation. Be able to tell about what you used what you did in your experiments, and what you found out. Know it well enough that you don't have to read it from the display.

13. Plan a time line so you don't leave everything until the last minute. If you need help, tell your parents and your teacher, the earlier the better.

14. Relax and Enjoy yourself. You will do a GREAT job!