|  |
| --- |
| MSPLesson Plan |
| **NAME: Jennifer Brown, Robby McLellan** |
| **SUBJECT/GRADE RANGE: Physics/11th** |
| **TOPIC: Waves (Identification)** |
| **List of appropriate standards that support the lesson.**   * PS4-1 (Waves and their applications) |
| **List of appropriate objectives that guide the lesson.**   * To explain the various types of waves * Categorize the different waves |
| **An equipment list in table format, stating the quantity and source for each item.**   |  |  |  | | --- | --- | --- | | Equipment | Quantity | Source | | Wave picture cards | 10 sets | Attachment (print and laminate) | | White boards | 10 | Lowes 4’x8’ white panel cut to (5)2’x3’ sections | | Dry erase markers | 30 | Staples | | Dry erase erasers | 10 | Staples | |  |  |  | |  |  |  | |  |  |  | |
| **List of safety requirements for your lesson. (when applicable)**   * N/A |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A detailed plan of instruction including activities, timeline, and questions you plan to ask students.**   |  |  |  | | --- | --- | --- | | ***Engagement*** | | | | Timing | Activities | Planned Questions & Expected Answers/Misconceptions | | 5 min | Individual bell ringer then think-pair-share | Why do you need a radio to be able to listen to the station? | |  |  | |  |  | |  |  | | ***Exploration*** | | | |  | | | | Timing | Activities | Planned Questions & Expected Answers/Misconceptions | | 20 min | Card sorting in groups – groups are given 20+ picture cards asked to sort into categories (mystery category) and give reason for your categories | Q. Why did you pick the sorted groups?  What do those waves have in common?  Is there any other wave not pictured you could place in a category?  (Ans)Light/non, sound/none, touch/non, see/non  (Mis) You can “see” waves. | |  |  | |  |  | |  |  | | ***Explanation*** | | | |  | | | | Timing | Activities | Planned Questions & Expected Answers/Misconceptions | | 20 min | Students present on whiteboards their reasoning as to categories and placement (no touch after time) | Can you use different categories? | |  |  | |  |  | |  |  | | ***Elaboration*** | | | |  | | | | Timing | Activities | Planned Questions & Expected Answers/Misconceptions | | 5 min | Revision and additional sorting based on class discussion during white board presentation. | Q. Can these chosen categories be divided further? | | Secretly Prompt one group students to sort based on sound or no sound | Q. Of the “sound” group, are there any you cannot hear? Why not? | | Show teacher-sort of objects in electromagnetic and mechanic. Call for student/group response as to categories. | Q. What are the characteristics this grouping is sorted by? | |  |  | | ***Evaluation*** | | | | See below | | | |
| **Assessments. A copy (or description) of how you will assess whether the students have achieved your objectives along with a key showing how you will evaluate responses.**  Exit slip – project 2 mechanical, 2 EM images and have students categorize as respective. Q. Why do you need a radio to listen to a radio station? |
| **Any visual aids and handouts that you will use.**  http://johnlewis.scene7.com/is/image/JohnLewis/231283644?$prod_exlrg$http://www.accentblinds.ca/wp-content/uploads/2015/06/ncEEjypai.gifhttp://www.comodynes.net/wp-content/uploads/2015/02/Ambitionc.jpg  http://www.aldine.k12.tx.us/cms/ImageUploads/cell-phone.jpg  http://www.darvill.clara.net/emag/images/xrayhands.jpghttp://images.clipartpanda.com/light-bulbs-4ibd7j5ig.jpeg  http://termm.eu/wp-content/uploads/sites/5/2016/02/radio.jpg http://previews.123rf.com/images/rommma/rommma1406/rommma140600061/29462909-wifi-router-with-antenna-and-signal-blue-Stock-Photo.jpg  http://www.crsd.org/cms/lib5/PA01000188/Centricity/Domain/734/Guitar%20image.jpghttp://www.easyeartraining.com/wp-content/uploads/2020/03/Crash-Course-Ear-black-157x200.png  http://communtransport.weebly.com/uploads/2/9/1/9/29196475/5103842_orig.jpg http://www.mdimaging.org/images/ultrasound-machine.jpg  http://previews.123rf.com/images/sofiazhuravets/sofiazhuravets1602/sofiazhuravets160200017/53032297-Beautiful-girl-with-long-wavy-hair-Brunette-model-with-curly-hairstyle-Stock-Photo.jpg http://images.clipartpanda.com/water-waves-border-clipart-ocean-waves-borders.jpg  http://www.bu.edu/synapse/files/2012/10/eq004.jpg http://fusion.ddmcdn.com/kids/uploads/lightning-rods-300.jpg  http://vignette3.wikia.nocookie.net/phineasandferb/images/9/9f/Surfing_the_crowd_wave.jpg/revision/latest?cb=20100920001509http://songbirdscience.com/resources/bird1/image_preview  http://clipartgo.com/wp-content/uploads/2016/05/Thetorontobeaches-fireworks-victoria-day-at-ashbridges-bay-park-clip-art.jpg http://www.aarestaurantsupply.com/products/nemcoimages/nem6000a2b.jpg  http://www.cultofdegan.com/wp-content/uploads/2013/03/bnvd-night-vision-goggles.jpg http://web2.karsteducation.org/EchoLocation.bmp  http://people.eku.edu/ritchisong/Female_song_examples.gif |