| Big Idea: How can we use waves to gather and transmit informa | tion? | | | | | | | | | | | | | | | | | | |
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| Guiding Questions: Part A: If a beach ball lands in the surf, be Part B: | ond the breakers, what will happen to it? | | | | | | | | | | | | | | | | | | |
| Folder with additional resources DCI (Distributions) Com Mean) | Saimers and Engineering Department | Course Continues Conservation | Student Learning Objections | Differentiated Astronom | Remaining (Texture Loss) | E-main francisco | Republication for an and | | | | | | | | | | | | |
| DC 44 IN the Description of the Internet | And the Light of Trans | Crus Carage Concepts | STRAT identify partners in patient discovery | (Consider the 5 Ex) | and the second s | Provide Provid | Manufer Annual | | | | | _ | | | | | | | |
| Wave repetition Wave repetition Wave, which are regular patterns of motion, make in works in works by disturbing the section | Developing and Using stockes Develop a model using an analogy, example, or obstead assessmentation to describe a scientific | Patterns | SWRAT recognize similarities and differences in | | comings-pola-surv- | | presentation - submitted | | | | | | | | | | | | . 1 |
| When waves move across the surface of deep water, the water goes up and down in place: | principal 4-PS4-1 | differences in patterns can be used to sort, | natural phenomena SWBAT sort and classify patterns: of natural | | | 6. N.I.I. | tests, and revisions | | | | | | | | | | | | |
| there is no net motion in the direction of the wave except when the water meets a | Connections to Nature of Science | of change for natural phenomena. (4-PS4-1) | phenomena hased on the similarities and differences SWBAT identify different types of varies and ways | com/waven/mystery-3/second- widerstigner-aurory/\$77r=3426027 | com/science/energy/serves/ | Science Nowbook | creation of model that | | | | | | | | | | | | . 1 |
| beach. (Note: This grade band endpoint was moved from K-2.) (4-PS4-1) | Scientific Knowledge is Based on Empirical Evidence | | wanter are created | | | | B submitted with research | | | | | | | | | | | | . 1 |
| Waves of the same type can differ in amplitude | Science findings are based on recognizing patterns. (4-PS4-1) | | SWEAT recognize that waves vary or ampetude and length due to natural earth processes | | | | documented tests, and restsions | | | | | | | | | | | | . 1 |
| (height of the wave) and wavelength (spacing between wave peaks). (4-PS4-1) | | | | https://monterpacience. | https://mysterszcience. com/science/mysters.1/cound. | https://docs.poople. com/docsment/d/DC_acaR_ | https://mysterszcience. | | | | | | | | | | | | |
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| PS4.C: Information Technologies and Instrumentation • Digitized information can be transmitted over | Constructing Explanations and Designing Solutions • Generate and compare multiple solutions to a multiple multiple solutions to | Similarities and differences in patterns can be used to sort and classify designed products. | SWBAT identify relevant and credible research | | | https://maxieryscience. com/waves/matery-3/seand- | | | | | | | | | | | | | |
| long distances without significant degradation. High-tech devices, such as computers or cell | criteria and constraints of the design solution. (4-PS4-3) | (C-FSE) Connections to Engineering, Technology, and Applications of Science Interdependence of | SWEAT plan and conduct investigations to collet data to use as evidence | | | vibrations-waves/522 r=3426927/hlide-sd-1881 | | | | | | | | | | | | | |
| phones, can receive and decode information—convert it from digitized form to voice—and vice | | Science, Engineering, and Technology Encodedge of | SWRAT design test and refine a model that allows communication between others across a room or | https://mynteryncience. com/waves/myntery-2/sound- | | https://mysteryscience. com/sense/mystery-2/sound- | | | | | | | | | | | | | |
| VESE (4-F54-5) | | important in engineering. | (pace | vibrations/51?r=3426927 | | <u>11brations/51?</u> r=34269278ulide-sd-1893 | | | | | | | | | | | | | , I |
| | | | | https://opinterpincience. com/waves/opinterp-3/acound- | | Science notebooks | | | | | | | | | | | | | |
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| ETS1.C: Optimizing The Design Solution • Different solutions need to be tested in order to | Constructing Explanations and Designing Solutions | Similarities and differences in patterns can be used to sort and classify designed products. (A.DCH) | | | | | | | | | | | | | | | | | |
| determine which of them best solves the problem, given the criteria and the | Generate and compare multiple solutions to a problem based on how well they meet the | Connections to Engineering, Technology, and Applications of Science Interdependence of | | | | | | | | | | | | | | | | | |
| constants. (SECONDRY 10 +-P3+-3) | (4-PS4-3) | science, Engineering, and Technology Encodedge of Interact scientific concepts and meaning Environments | | | | | | | | | | | | | | | | | |
| ETS1.B: Developing Possible Solutions | Constructing explinations and designing | inportant in engineering. | | | | | | | | <u> </u> | <u> </u> | | | | | | | | |
| Research on a problem should be carried out before beginning to design a solution. Testing a | solutions Generate and compare multiple solutions to a | Science, Engineering, and Technology on Society and the Natural World | | | | | | | | | | | | | | | | | |
| solution involves investigating how well it performs under a range of likely conditions. (3-5- | problem based on how well they meet the criteria and constraints of the design problem. | Engineers improve existing technologies or develop new ones to increase | | | | | | | | | | - | | | | | | | |
| ETS1-2) • At whatever stage, communicating with peers | (3-5-ETS1-2) | their benefits, decrease known nisks, and meet societal demands. (3-5-6751-2) | | | | | | | | | | | | | | | | | $ \rightarrow$ |
| about pronosed solutions is an important part of ETS1.C: Optimizing the Design Solution | Planning and Carrying Out Investigations | influence of | | | | | | | | | | | | | | | | | |
| Different solutions need to be tested in order to determine which of them best solves the | | Scence, singlesening, and rechnology on society and the Natural World | | | in the local sheeting a | (573-2456977 | | | | | | _ | | | | | | | |
| (3-5-ETS1-3) | | Engineers improve existing technologies or develop new ones to increase their houses. | SWBAT identify relevant and credible research | https://mysteryscience.com/waves | involvey-2/sound-vibrations/5 | 7-3426927 | | | | | | | | | | | | | |
| | Generate and compare multiple solutions to a reoblem based on how well they meet the criteria | their benefics, decrease known risks, and meet societal demands. (3-5-6751-2) | SWRAT plan and conduct investigations to collect data to use as evidence | | | https://mysteryscience. | | | | | | | | | | | | | |
| | and constraints of the design problem. (3-5- ETS1-2) | | SWRAT design test and refine a model that allows communication between others across a room or space | | | 2/second-vibrations/S12 r=3426927#slide-id-1893 | | | | | | | | | | | | | . 1 |
| | | | SWBAT cruate and answer questions to improve a design solution | Use formative assessment links and use questions to puide | | | | | | | | | | | | | | | |
| | | | | thinking after each activity | | | | | | | | | | | | | | | , I |
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| | | | | benchmark/summative assessment | | | | | | | | | | | | | | | . 1 |
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