

ÜNİTE	KONU	KAZANIM	TÜRÜ (Simülasyon-Sanal Deney-Video)	BAĞLANTI LİNKİ	İŞBİRLİĞİ YAPILABİLECEK ZÜMRE	KULLANILAB İLECEK DİĞER SINIF SEVİYESİ
Dalgalar	Işık ve Ses	Ses dalgaları ile ilgili temel	Simülasyon	https://www.youtube.com/watch?v=lo-HXZTepH4		10
Genel	Fizik Deneyleri	Performans ödevi olarak v	Simülasyon	http://www.thephysicsaviary.com/Physics/Programs/Labs/find.php	Kimya	9-10-11-12
Madde ve Özellikleri	Yüzey Gerilimi	Adezyon ve kohezyon olay	Video	https://www.youtube.com/watch?v=GK3S-D2c0A	Kimya	9
Dalgalar	Dalga Çeşitleri	Dalgaları taşıdığı enerji ve	Video	https://fizikdersi.gen.tr/dalgalar-dalga-hareketi-cesitleri/		10
Dalgalar	P ve S dalgaları	Dalgaları taşıdığı enerji ve	Simülasyon	https://www.edumedia-sciences.com/en/media/426-the-3-types-of-seismic-waves		10
Işık	Işığın saçılımı	Işığın davranış modellerini	Video	https://www.youtube.com/watch?v=pyDYooGC5OM	Kimya	10
Madde ve Özellikleri	Kılcallık- Özkütle	Günlük hayatta saf madde	Video	https://www.youtube.com/watch?v=rfnwTMdP3Oc	Kimya	9 ve 10
Elektrik	Elektroliz		Video	https://www.youtube.com/watch?v=rfnwTMdP3Oc		9 ve 10
Modern Fizik	Rölativite	Özel Görellik (İzafiyet Teo	Video	https://www.youtube.com/watch?v=wD7C4V9smG4		12
Atom Fizikine Giriş	Belirsizlik İlkesi	Bohr Atom Teorisinde Kavı	Bilgi metni	https://www.livescience.com/23426-uncertainty-principle-measurement-disturbance.html	Kimya	12
Kaldırma Kuvveti	Arşimet Prensibi	Kaldırma kuvvetinin bağlı d	Video	https://www.docstity.com/en/news/education-2/principles-physics-explained-educational-gifs/		10
Basınç	Bernoulli İlkesi	Akışkanların basıncı ile ilgil	Video	https://www.docstity.com/en/news/education-2/principles-physics-explained-educational-gifs/		10
Basınç	Pascal Prensibi	Durgun Sıvıların Basıncı	Video	https://www.docstity.com/en/news/education-2/principles-physics-explained-educational-gifs/		10
Atom Fizikine Giriş	Belirsizlik İlkesi	Bohr Atom Teorisinde Kavı	Video	https://www.docstity.com/en/news/education-2/principles-physics-explained-educational-gifs/		10
Optik	Tyndal etkisi	Cisimlerin farklı renkte gör	Video	https://www.youtube.com/watch?v=qxlR7ZdqV7w		10
Optik	Tyndal etkisi	Cisimlerin farklı renkte gör	Bilgi	https://www.thoughtco.com/definition-of-tyndall-effect-605756	Kimya	10
Isı-Sıcaklık	Sıcaklık ve İç enerji	Sıcaklığın maddeler üzerin	Etkinlik(Sorular)	http://www.ewart.org.uk/science/structures/str3.htm	kimya	9
Basınç	Gaz basıncı	Gaz basıncının bağlı olduđu	Bilgi	http://www.physbot.co.uk/gas-laws.html	kimya	10
Gazlar	Gazların Kinetik Teorisi		Etkinlik(Sorular)	http://www.dynamicscience.com.au/tester/solutions1/chemistry/gas/kinetictheory.htm	kimya	10
Enerji	Enerji Korunumu	Enerji dönüşümlerinin bağ	GİF	https://pin.it/3XMoUjs		9
Gazlar	Gazların kinetik teorisi		GİF	https://pin.it/24mvugM	kimya	10
Dalgalar	Dalga çeşitleri	Dalgalarda girişim	Bilgi(Wikipedia)	https://en.wikipedia.org/wiki/Standing_wave		10 ve 12
Gazlar	Gazların öteleme kinetik enerjisi		GİF	https://ozonedepletiontheory.info/ImagePages/translational-kinetic-energy.html	kimya	10
Dalgalar	Dalgalarda yansıma	Dalgaların farklı ortamlard	GİF	https://www.acs.psu.edu/drussell/Demos/reflect/reflect.html		10
Basit harmonik hareket	Basit sarkaç	Sarkaç periyodunun nelere	GİF	https://scipythn.com/blog/the-spring-pendulum/		12
Dalgalar	Dalgalarda yansıma	Dalgaların farklı ortamlard	GİF	https://www.physicsclassroom.com/mmedia/waves/fix.cfm		10
Gazlar	Gazların özellikleri	Gazların değişik koşullard	Simülasyon	https://phet.colorado.edu/en/simulation/gas-properties		10
Dalgalar	Deprem dalgaları	Deprem dalgalarının özelli	Bilgi	https://www.earthsciweek.org/classroom-activities/modeling-earthquake-waves		10

Elektrik-manyetizma-dalga-termal fizik-mekanik enerji			IB BİLGİ	https://ibbetter.com/physics-ia-ideas/		9-10-11-12
Fizik Kuşhanesinde bulunan laboratuvarlar			Bilgi-video	http://www.thephysicsaviary.com/Physics/Programs/Labs/find.php		9-10-11-12
HTML 5 simülasyonları		Performans /Proje ödevi o	Video	http://physics.bu.edu/~duffy/HTML5/index.html		9-10-11-12
Project-Based Learning in Your Physics Classroom/Proje tabanlı eğitim		Performans /Proje ödevi o	Bilgi	https://edu.stemjobs.com/project-based-learning-in-your-physics-classroom/		9-10-11-12
PBL Waves/PBL dalgaları/ Proje tabanlı eğitim		Performans /Proje ödevi o	Bilgi	https://sites.google.com/u.boisestate.edu/pblwaves/project-overview		9-10-11-12
Visualizing Magnetic Field 3D-2 - Mixed Reality Education / Feel Physics, Science ICT, HoloLens			Video	https://www.youtube.com/watch?v=T7PMs5NGupE		
Visualization of magnetic field strength of a Helmholtz coil in an AR environment			Makale	https://www.researchgate.net/figure/Visualization-of-magnetic-field-strength-of-a-Helmholtz-coil-in-an-AR-environment_fig10_216813296		
Magnetic Field Lines Virtual Reality Demo Video Augmented Reality Demo			Video	https://www.youtube.com/watch?v=4NmiqrEP8us		
What Can We Learn from Augmented Reality (AR)?			Video	https://www.youtube.com/watch?v=wZMuicq3Dc		
Molekül 3D modelleri			İçerik	https://sketchfab.com/3d-models/pm-3m-221-zif-71-rho-3b46322a67754580afa21f1807c42dac		
Molekül 3D modelleri			İçerik	https://sketchfab.com/search?q=molecules&type=models		
Sensörler			İçerik	https://www.vernier.com/video/vernier-go-direct-sensors/ https://www.vernier.com/product/go-direct-eka-sensor/ https://www.vernier.com/product/go-direct-energy-sensor/ https://www.vernier.com/product/go-direct-respiration-belt/		
IB notes			İçerik	https://sites.google.com/site/ibdpphysics101/prescribed-practical-work		
Genel			İçerik	https://thephysicsaviary.com/Physics/Programs/Labs/FlowRateFromBeverageDispenserLab/		
Kırınım ve Girişim Kaynakları	Kırınım ve Girişim		İçerik	https://www.expji.com/t/diffraction-of-light-definition-overview-8304		11
			İçerik	https://commons.wikimedia.org/wiki/Category:Animations_of_diffraction		11
			GİF ve Bilgi	https://commons.wikimedia.org/wiki/File:Width_of_slit_diffraction_pattern_animation.gif		11
			GİF ve Bilgi	https://commons.wikimedia.org/wiki/File:Width_of_slit_diffraction_pattern_animation.gif		11
			İçerik	https://www.uvm.edu/~dahammon/Structural_Colors/Structural_Colors/Diffraction_And_Interference.html		11
			İçerik	https://www.olympus-lifescience.com/en/microscope-resource/primer/lightandcolor/diffraction/		11
			İçerik	https://www.naqwa.com/en/explainers/568164307517/		11
Enerji Dönüşümü Kaynakları	Enerji Dönüşümü		İçerik	https://studiousquv.com/examples-mechanical-energy-everyday-life/		10
			Video	https://youtu.be/87E0DKs5bok		10

Momentum and Impulse	Momentum and Impuls	Linear Momentum and I	GİF ve Bilgi	https://www.flippingphysics.com/momentum-and-impulse-gifs.html https://www.flippingphysics.com/impulse-area.html		
Yaylar	Yaylar	How do springs store en	İçerik	https://www.explainthatstuff.com/how-springs-work.html		
Dalgalar	Dalgalar		GİF ve Bilgi	https://www.flippingphysics.com/waves-gifs.html https://www.flippingphysics.com/waves.html		
Notes on Inclined Planes			İçerik	https://www.saratogaschools.org/webpages/tsanders/notes.cfm?subpage=1381077_		
YOUNGS DOUBLE SLIT EXPERIMENT At Home			Video	https://www.youtube.com/watch?v=oeUaOw7dFOU		
Floating Ping Pong Ball Science Experiment			İçerik	https://coolscienceexperimentshq.com/floating-ping-pong-ball/		
How to measure the speed of light - with CHOCOLATE!			Video	https://www.youtube.com/watch?v=kpB1wezpjE		
Kütle Merkezinin Hareketi			İçerik	https://www.acs.psu.edu/drussell/demos/com/com-a.html		
Acoustics and Vibration Animations			İçerik	https://www.acs.psu.edu/drussell/demos.html		
Center of gravity			İçerik	https://www.explainthatstuff.com/center-of-gravity.html		
Center of gravity			İçerik	https://www.toppr.com/ask/content/story/amp/determination-of-center-of-gravity-14422/		
Electrolysis of Water in Living Color			Video	https://www.youtube.com/watch?v=GJaNull6bOI		
Electrolysis Of Aqueous NaCl Electrolysis Exception Explained			Video	https://www.youtube.com/watch?v= gbnrmTEYes		
Thermodynamics, PV Diagrams, Internal Energy, Heat, Work, Isothermal, Adiabatic, Isobaric, Physics			Video	https://www.youtube.com/watch?v=TnDCxw0y6YM		
Rockets & Newton's Laws In 3 Gifs!			İçerik	https://astrocampschool.org/rockets-newton/		
Fun With Inertia!			İçerik	https://astrocampschool.org/inertia/		
Newton's 3 Laws of Motion			İçerik	https://tr.pinterest.com/pin/140456082105550039/sent/?invite_code=da83f142cfaf4d96aad4580395997ff5&sender=519040063212927147&sfo=1		
Newton's Second Law			İçerik	https://thelawsofnewton.weebly.com/second-law.html		
What is Inertia? moment of inertia			İçerik	https://extrudesign.com/what-is-inertia/		
NEWTON'S FIRST LAW – EXAMPLES			İçerik	https://mammothmemory.net/physics/newtons-laws-of-motion/newtons-first-law--examples/newtons-first-law-examples.html		
Physics - 3.1 - Aristotle, Copernicus, and Galileo on Motion			Video	https://www.youtube.com/watch?v=yf_iEKbVYAc		
From Galileo to Newton: Physics Emerges			İçerik	http://zebu.uoregon.edu/disted/ph121/l3.html		
NEWTON'S FIRST LAW			İçerik	http://qifexperiments.blogspot.com/2019/02/a-gif-animation-demonstrating-motion-of.html		
Newton's three laws			İçerik	https://www.yumpu.com/en/document/read/47656487/motion-newtons-three-laws-discovery-education-classroom-		
Project-Based Learning: Teaching Newton's Laws with Broomball			İçerik	https://blog.summitlearning.org/2017/08/project-based-learning-broomball/		
Exploring Force and Motion Project-Based Learning Unit			İçerik	https://www.teachervision.com/futurefit-projects/exploring-force-and-motion-project-based-learning-unit		
A Project-based Course on Newton's Laws for Talented Junior High School Students			İçerik	https://www.researchgate.net/publication/278698270_A_Project-based_Course_on_Newton's_Laws_for_Talented_Junior_High_School_Students		
Newton's Third Law			Video	https://www.youtube.com/watch?v=91OYouiH4bQ		
Radyoaktif ışınlar			İçerik	http://www.passmyexams.co.uk/GCSE/physics/what-is-radioactivity-and-structure-of-atom.html		
Ortam kırılma indisi			gif	https://i.makeagif.com/media/5-26-2018/XCKt3f.mp4		
			gif	https://commons.wikimedia.org/wiki/File:Snell_law.gif		
			gif	https://commons.wikimedia.org/wiki/File:Snells_law_wavefronts.gif		
microoptics			İçerik	https://www.suss-microoptics.com/en/products?qclid=CiOKCQiw6J-SBhCrARIsAH0vMZqZ4kmdAS9wDL4RijAqQ0_wmlCm99qt1SuNh8oXUm-LOUuoTshvMmoaAsAcEALw_wcB		
Ses dalgaları			İçerik	https://examples.yourdictionary.com/real-life-refraction-examples.html		
			İçerik	http://www.vhlab.umn.edu/atlas/echocardiography-tutorial/what-is-echocardiography.shtml		
			İçerik	https://qiphy.com/explore/sound-wave		
			İçerik	https://www.physicsclassroom.com/class/sound/u1l1c.cfm		
			İçerik	https://www.acs.psu.edu/drussell/demos.html		
			İçerik	https://blog.doccity.com/en/living/science-2/physics-sound-visual-representation-gifs/		
eba deneyler			İçerik	https://paos.colorado.edu/~fasullo/1060/resources/radar.htm		
FİZİK DENEYLERİ			deney	https://ogmmateryal.eba.gov.tr/denevler		
Fen deneyleri			deney	https://www.youtube.com/playlist?list=PLssV8JDpWBzSUC0ebiauLulap1dd2-b3v		
COULOMB 3D electric field simulation part 1			Video	https://www.fencebilim.com/fen/denevler.html		
PHET simulation "Charges and Fields"			simülasyon	https://www.youtube.com/watch?v=3xeXNnMAb5M https://www.numerade.com/ask/question/part-1-electric-field-core-open-me-phet-simulation-charges-and-fields-add-positive-and-negative-charges-as-shown-in-the-diagram-below-draw-appropriate-electric-field-lines-around-and-in-bet-66607/?utm_campaign=google_intl_numerade_international-portal&utm_source=google_intl_numerade_international&utm_medium=organic&utm_term=organic		
PhET - Charges and Fields			Video	https://www.youtube.com/watch?v=kxylPBd6BvA		
PhET Charges and Fields video tutorial			Video	https://www.youtube.com/watch?v=VLhZvwFiiOs		
Scientists explain how you can 'feel' electrical fields			İçerik	https://www.wired.co.uk/article/scientists-identify-electric-field-sensor-mechanism-in-human-cells		
path of a particle in a force field			gif	https://commons.wikimedia.org/wiki/File:Path-of-test-charge-in-electric-field.gif		
Cathode Ray Tube			Video	https://www.youtube.com/watch?v=vXOeehVTcRA		
10 Ways to SEE the ELECTRIC FIELD - Part 1			Video	https://www.youtube.com/watch?v=Y6YdC2UoDYY		
10 Ways to SEE the ELECTRIC FIELD - Part 2			Video	https://www.youtube.com/watch?v=bOLd2KVK-Mo		

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