

ÜNİTE	KONU	KAZANIM	TÜRÜ (Simülasyon-Sanal Deney-Video)	BAĞLANTI LİNKİ	İŞBİRLİĞİ YAPILABİLECEK ZÜMRE	KULLANILABİLECEK DİĞER SINIF SEVİYESİ
HÜCRE	Hücrenin Yapısı	Hücresel yapıları ve görevlerini açıklar.	Video	http://www.khanacademy.org.tr/altkategori.asp?cat=221		9-10-11-12
İNSAN FİZYOLOJİSİ	Dolaşım Sistemi	Kalp, kan ve damarların yapı, görev ve işleyişini açıklar	Video	https://youtu.be/t-zCBKRq7Cs		
GENETİK ŞİFRE VE PROTEİN SENTEZİ	Genetik Mühendisliği ve Biyoteknoloji	Genetik mühendisliği ve biyoteknoloji uygulamalarını açıklar	Video	https://www.youtube.com/watch?v=DaaRrR-ZHP4		9-10-11-12
BİTKİ BİYOLOJİSİ	Bitkilerde Eşeyli Üreme	Tohum çimlenmesini gözleyebileceği deney tasarlar.	Video	https://chemistry.harvard.edu/news/daniel-nocera-wants-feed-world-light		
GENETİK ŞİFRE VE PROTEİN SENTEZİ	Protein sentezi	Protein sentezinin mekanizmasını açıklar.	Video	https://www.youtube.com/watch?v=wJyUtbm0O5Y		
HÜCRE	Hücre	Hücresel yapıları ve görevlerini açıklar.	Simülasyon	https://www.youtube.com/watch?v=URUJD5NEXC8		
GENETİK ŞİFRE VE PROTEİN SENTEZİ	DNA Replikasyonu	DNA' nın kendini eşlemesini açıklar.	Video	https://www.youtube.com/watch?v=7Hk9jct2ozY		
BİTKİ BİYOLOJİSİ	Fotosentez	Fotosentez hızını etkileyen faktörleri değerlendirir.	Video / Deney	https://youtu.be/pwvmX2LxnQs		
CANILILARDA ENERJİ DÖNÜŞÜMLERİ	Fotosentez	Fotosentez sürecini şema üzerinde açıklar.	Video / Deney	https://www.youtube.com/watch?v=cMte2VCiZ-I		
GENETİK ŞİFRE VE PROTEİN SENTEZİ	Genetik Mühendisliği ve Biyoteknoloji	Genetik mühendisliği ve biyoteknoloji uygulamalarını açıklar	Video	https://www.youtube.com/watch?v=0DXebywkTmI		9-10-11-12
HÜCRE	Hücre Zarında Madde Alışverişi	Hücre zarından madde geçişini etkileyen faktörlerden (yüzey alanı, konsantrasyon farkı, sıcaklık) biri hakkında kontrollü deney yaptırılır.	Video / Deney	https://www.youtube.com/watch?v=i0epg8J_K5k		
BİTKİ BİYOLOJİSİ	Fotosentez	Fotosentez hızını etkileyen faktörleri değerlendirir.	video / Simülasyon	https://www.youtube.com/watch?v=i8U0ACzjcfc		
GENEL BİYOLOJİ	Genel Biyoloji (en iyi 10 biyoloji deneyi)	Performans ödevi olarak verilebilir	Deney	https://www.labiotech.eu/tops/div-biology-experiments-home/	Fizik/ Kimya	9-10-11-12
GENEL BİYOLOJİ	Genel Biyoloji	Performans ödevi olarak verilebilir	Simülasyon/ Deney	https://askabiologist.asu.edu/activities/experiments		9-10-11-12
YAŞAM BİLİMİ BİYOLOJİ	Biyoloji Bilimine Giriş (Tarihçe)	Performans ödevi olarak verilebilir	Video	https://www.youtube.com/watch?v=YHboJiVmYWE		9-10-11-12
CANILILARDA ENERJİ DÖNÜŞÜMLERİ	Hücresel Solunum	Hücresel solunumu açıklar.	Video / Deney	https://www.youtube.com/watch?v=q61dTk4J9AU		
CANILILARDA ENERJİ DÖNÜŞÜMLERİ	Fotosentez	Fotosentez sürecini şema üzerinde açıklar.	video	https://www.youtube.com/watch?v=g78utclOrJ4		
GENEL BİYOLOJİ	50 Biyoloji Deneyi	Performans ödevi olarak verilebilir	Deney	https://ibbetter.com/biology-ia-ideas/	Fizik/ Kimya	9-10-11-12
GENEL BİYOLOJİ	Genel Biyoloji	Performans ödevi olarak verilebilir	Simülasyon	https://www.toppr.com/guides/biology/		9-10-11-12
GENEL BİYOLOJİ	Tubitak Biyoloji Deneyleri	Performans ödevi olarak verilebilir	Deney	https://bilimgenc.tubitak.gov.tr/denevler	Fizik/ Kimya	9-10-11-12
	ENZİMLER	Enzimlerin çalışmasında sıcaklığın etkisini açıklar	Deney	http://www.dynamicscience.com.au/tester/solutions1/chemistry/rates/panadolactivity.html	Kimya	9
Project Based Learning/ Proje tabanlı Eğitim	Performans/Proje ödevi olarak verilebilir		Deney	https://www.biologycorner.com/2012/03/03/project-based-learning/	Kimya	9-10-11-12
GENEL BİYOLOJİ	Membran		İçerik	http://virtualbiologylab.org/membranes/		
GENEL BİYOLOJİ	ENZİMLER		İçerik	https://ngss.nsta.org/Resource.aspx?ResourceID=472		
GENEL BİYOLOJİ	ENZİMLER		İçerik	https://serendipstudio.org/exchange/waldron/enzymes		
GENEL BİYOLOJİ	Hücre		gif	https://qiphv.com/gifs/biology-cell-9PnFlvHye1UVmizNCM		
GENEL BİYOLOJİ	biyoloji deneyleri	5 DIY Biology Experiments You Can Do at Home	Deney	https://www.labiotech.eu/tops/div-biology-experiments-home/		
GENEL BİYOLOJİ	biyoloji deneyleri	High School Biology Experiments	Deney	https://teens.lovetoknow.com/High_School_Biology_Experiments		
GENEL BİYOLOJİ		Biology Animated Gifs	gif	https://www.doccity.com/en/news/category/biology/		
GENEL BİYOLOJİ	biyokimya	Biochemistry	gif	https://biochemknowledge.wordpress.com/tag/simple-biochemistry/		
GENEL BİYOLOJİ	hücre	Cell Biology Basics Explained through GIFs	gif	https://www.doccity.com/en/news/biology/cell-basics-explanation-gifs/		
GENEL BİYOLOJİ	sistemler	Systems of Human Body	gif	https://www.doccity.com/en/news/education-2/systems-human-body-interactive-gifs/		
GENEL BİYOLOJİ	replikasyon	Visual based explanation of Genomic Replication	gif	https://www.doccity.com/en/news/biology/visual-based-explanation-genomic-replication-viruses/		
GENEL BİYOLOJİ	bitki biyolojisi	Plant Physiology Related Processes	gif	https://www.doccity.com/en/news/biology/plant-physiology-related-processes-explained-gifs/		
GENEL BİYOLOJİ	insan vücudu	İnsan Vücudu	video	https://www.youtube.com/watch?v=RBZa_49JsPI		
GENEL BİYOLOJİ	insan vücudu	İnsan Beynine Yolculuk	video	https://www.youtube.com/watch?v=0_WDvq7qwOo		
GENEL BİYOLOJİ	sistemler	Sinir Sistemi	video	https://www.youtube.com/watch?v=vfQInX5y_yk		
GENEL BİYOLOJİ	sistemler	Ağzınızın İçinde Bir Yolculuk	video	https://www.youtube.com/watch?v=Gbv8pU6XubE		
GENEL BİYOLOJİ	sistemler	İnsan Gözü Kaç Megapikseldir?	video	https://www.youtube.com/watch?v=eCqTcEeL7RM		
GENEL BİYOLOJİ	sistemler	Human Organ Systems	video	https://www.youtube.com/watch?v=l26fM3nrJQ0		
GENEL BİYOLOJİ	sistemler	Human Organ Systems	video	https://www.youtube.com/watch?v=k3C6xGhuu5c		
GENEL BİYOLOJİ	sistemler	Journey of Sound to the Brain	video	https://www.youtube.com/watch?v=eQEaiZ2j9oc		
GENEL BİYOLOJİ	sistemler	Human Digestive System in VR	video	https://www.youtube.com/watch?v=r8-6Z1Efqzq&feature=youtu.be		
GENEL BİYOLOJİ		CRISPR: Gene editing and beyond	video	https://www.youtube.com/watch?v=4YKFw2KZA5o		
GENEL BİYOLOJİ		Brain VR	video	https://www.youtube.com/watch?v=cnAwR61qdJk&feature=youtu.be		
GENEL BİYOLOJİ		Intercellular – An Interbody VR Experience	video	https://www.youtube.com/watch?v=aogLFedcnTl		
GENEL BİYOLOJİ		Cellscape VR Biology Guided Tour	video	https://www.youtube.com/watch?v=q82lrNWbKc		
GENEL BİYOLOJİ	hücre	Hücre	gif	https://www.doccity.com/en/news/biology/cell-basics-explanation-gifs/		
GENEL BİYOLOJİ	replikasyon	Replikasyon	gif	https://www.doccity.com/en/news/biology/visual-based-explanation-genomic-replication-viruses/		
GENEL BİYOLOJİ		Genel	gif	https://www.doccity.com/en/news/category/biology/		
GENEL BİYOLOJİ	sistemler	İnsan Vücudu	gif	https://www.doccity.com/en/news/science-2/systems-human-body-interactive-gifs/		
GENEL BİYOLOJİ			video	https://youtu.be/CV68EzSOjSl		
GENEL BİYOLOJİ			video	https://youtu.be/Wi795JhpYo		
GENEL BİYOLOJİ			video	https://youtu.be/odoX1QDL23Y		
GENEL BİYOLOJİ			İçerik	https://www2.palomar.edu/users/warmstrong/aniblood.htm		
GENEL BİYOLOJİ			video	https://youtu.be/Ules28qV-cA		
IBBio: Investigation Cycle			İçerik	https://i-biology.net/2014/08/24/ibdp-sciences-investigation-cycle/		
Kan Grubu Belirleme			Oyun	https://educationalgames.nobelprize.org/educational/medicine/bloodtypinggame/gamev3/index.html		

Kan Grubu Belirleme			Simulasyon	https://www.sciencefromscientists.org/game/bloodtype.html		
Bioinnovation - more than just technology			İçerik	https://www.cambridgeconsultants.com/insights/Vlog/bioinnovation-more-just-technology		
Extract DNA from a banana!			video	https://www.youtube.com/watch?v=ew9-YGrpWo_		
TOP 10 BIOLOGY EXPERIMENTS YOU DON'T WANT TO MISS			İçerik	https://elementalscience.com/blogs/news/top-10-biology-experiments		
Experiments			İçerik	https://askabiologist.asu.edu/activities/experiments		
Flinn Demonstration Kits for Higher Ed Biology			İçerik	https://www.flinnsci.com/flinn-demonstration-kits-for-higher-ed-biology/vfm0408/		
Biology			İçerik	https://www.flinnsci.com/resources/biology/		
Student Lab Activities			İçerik	https://www.flinnsci.com/resources/biology/student-lab-activities/		
Cell Size Lab: Examining Surface Area to Volume Ratios			İçerik	https://www.sciencelessonsthatrock.com/blog/cell-size-lab-examining-surface-area-to-volume-ratios		
Go Direct® Respiration Belt			İçerik	https://www.vernier.com/product/go-direct-respiration-belt/		
Two Virtual Labs to Study Genetic Inheritance in the Fruit Fly			İçerik	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3706160/		
Transgenic Fly Virtual Lab			İçerik	https://www.biointeractive.org/classroom-resources/transgenic-fly-virtual-lab		
EDUCATION: Virtual Fruit Fly Lab			İçerik	https://science.sciencemag.org/content/312/5774/665.1.full	Üyelik gerektirmektedir.	
Laboratory 2: Virtual Fly Genetics			İçerik	http://courses.knox.edu/bio130/Virtual%20Fly%20Lab%20week%201.html		
website for teachers of biology in schools and colleges			İçerik	https://practicalbiology.org/		
Free Activity Resources			İçerik	https://www.rsb.org.uk/get-involved/biology-for-all/free-activity-resources		
System Modeler Modelica Library Store			İçerik	https://www.wolfram.com/system-modeler/libraries/high-school-biology/?src=google&458&qclid=CiwKCAiAq6vRBhBNEiwAeVvL0DnOnKhF9bJKozZ9xc9DulrxApYutO36333_JvOid6JBYMILYr0GMRoCthMOAvD_BwE		
5 Easy DIY Biology Experiments You Can Do at Home			İçerik	https://www.labiotech.eu/best-biotech/diy-biology-experiments-home/		
5 biology experiments you can do at home			video	https://youtube.com/watch?v=ODXebywkTmI&feature=share		
Biology Week at Home			İçerik	https://www.rsb.org.uk/get-involved/biologyweek/biology-week-at-home		
Edexcel GCSE (9-1) Biology Student Book			kitap	https://qcecompilation.com/edexcel-gcse-biology-student-book-pdf/		
Pearson Edexcel International Biology- PDF			kitap	https://zbook.org/pearson-edexcel-international-biology_MTM2MTYx.html		
Habitüasyon			gif	https://qifer.com/en/9MNI		
			gif	https://qfycat.com/uk/absoluteplumocrab-lost-in-space		
Öğrenme ve Belleğin Moleküler Biyolojisi: Öğrenirken ve Öğrendiklerimizi Depolarken Beynimizde Neler Yaşanıyor?			İçerik	https://evrimagaci.org/ogrenme-ve-bellegin-molekuler-biyolojisi-ogrenirken-ve-ogrendiklerimizi-depolarken-beynimizde-neler-yasaniyor-8106		
Sea slug offers clues to improving long-term memory			İçerik	https://www.nbcnews.com/id/wbna45826696		
The Molecular and Systems Biology of Memory			İçerik	https://www.sciencedirect.com/science/article/pii/S0092867414002906		
Madde döngüleri			İçerik	https://thumbs.gfycat.com/DarlingMeanCusimanse-mobile.mp4		
			İçerik	https://tr.pinterest.com/pin/307581849558607412/		
			İçerik	https://i.pinimg.com/originals/f6/50/15/f65015ebf15f770aba4ca2cc7ac419b0.gif		
			İçerik	https://blog.ed.ted.com/2017/08/08/5-ted-ed-lessons-about-water/		
			video	https://www.youtube.com/watch?v=oaDkph9vQBs		
			İçerik	https://en.m.wikipedia.org/wiki/File:Carbon_Cycle-animated_forest.gif		
			video	https://www.youtube.com/watch?v=tPz59t5vE8k		
			İçerik	https://www.onlyzerocarbon.org/carbon_cycle		
Feeding the world with light			İçerik	https://chemistry.harvard.edu/news/daniel-nocera-wants-feed-world-light		
Biology animations - transport of water and sugar, respiration and photosynthesis and cell growth in plants			gif	https://www.saps.org.uk/secondary/teaching-resources/1299-biology-animations-plant-transport-photosynthesis-and-cell-growth		
eba deneyler			deney	https://ogmmateryal.eba.gov.tr/deneyler		
Fen deneyleri			deney	https://www.fencebilim.com/fen/deneyler.html		
Kidney Diseases, Dialysis and Transplant Questions			İçerik	https://www.alevelbiologytutor.com/tutoring-blog/2018/1/5/kidney-diseases-dialysis-and-transplant-questions		
Haemodialysis animation			gif	https://www.kidneypatientguide.org.uk/HDanim.html		
Hemodialysis			video	https://www.youtube.com/watch?v=bn4m1VO2OzQ		
Using a Separating Funnel			video	https://www.youtube.com/watch?v=L13QUwgKwIU		
Magnetic Separation Rack			İçerik	https://www.nvigen.com/what-makes-a-good-magnetic-separation-rack/		

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