



Augmented Science – E-Kılavuz

Bu belge, Erasmus+ kapsamında yürütülen *“Enriching Learning with Augmented Reality Simulations for Interactive Science”* (Proje No: 2023-1-PL01-KA220-SCH-000164042) projesi kapsamında hazırlanmıştır. Proje; artırılmış gerçeklik ile zenginleştirilmiş bilimsel içerikler ve deneyler ile bunları destekleyen materyallerin geliştirilmesini ve AB’deki okullar için çevrimiçi bir aktif öğrenme sisteminin oluşturulmasını amaçlamaktadır. Projenin çıkış noktası, artırılmış gerçeklik (AG) tabanlı bir öğrenme ortamının laboratuvar uygulamalarını öğrencilerin tabletlerine veya telefonlarına taşıyarak fen derslerinin öğretimini ve öğrenimini desteklemesidir. Bu tür AG destekli simülasyonlar, fen eğitiminin daha erişilebilir ve ilgi çekici hâle getirmek ve aktif öğrenmenin sürdürülebilirliğini sağlamak için gereklidir.

Augmented Science projesinin temel çıktıları şunlardır:

- **E-Kitap:** Fen Dersi İçeriği – Senaryo – Zenginleştirilmiş Etkinlikler
- AG ile Zenginleştirilmiş Deneyler ve Simülasyonlar İçeren **Mobil Uygulama**
- Web Tabanlı Aktif Öğrenme Sistemi (**WALS**)

Proje tamamlandığında, elde edilen tüm sonuçlar ücretsiz olarak erişime açılacak ve proje ortaklarının dillerine (Lehçe, Yunanca, Türkçe ve Fince) çevrilecektir.

E-Kılavuzun amacı, kullanıcıların (öğretmenler, öğrenciler, eğitimciler ve yöneticiler) projenin çıktıları olan **mobil uygulamayı** ve **WALS e-öğrenme platformunu** etkili bir şekilde kullanmalarına yardımcı olmaktadır.

Aşağıda, mobil uygulamanın ve WALS e-öğrenme platformunun nasıl kullanılacağına ilişkin bilgiler adım adım sunulmaktadır.



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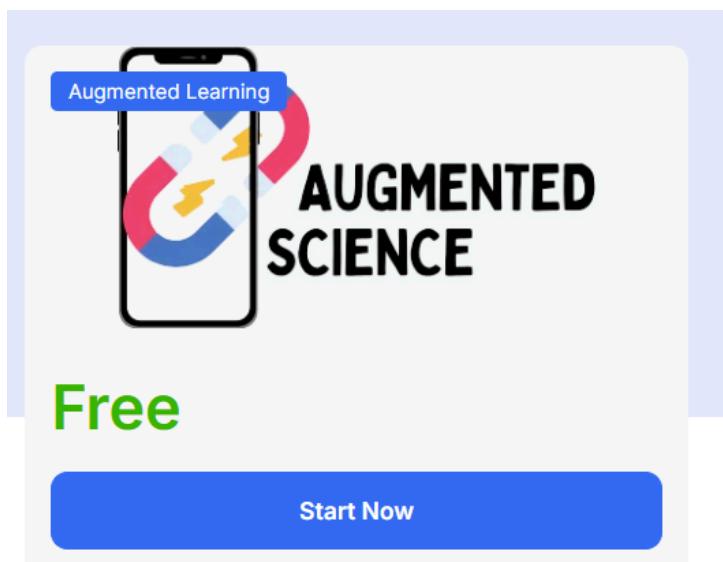
1. Öncelikle, **Augmented Science** mobil uygulamasını cihazınıza indiriniz:

<https://e-hub.augmentedscience.eu/courses/wals/>

[Get The App >>](#)



2. Ardından, **WALS** platformuna kaydolunuz (sağ tarafta yer alan “**Start Now**” (hemen başla) butonuna tıklayarak): <https://e-hub.augmentedscience.eu/courses/wals/>



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3. Kullanıcı adınızı ve Şifrenizi giriniz. Dilerseniz Google hesabınızı kullanarak da kaydolabilirsiniz.

Login with your site account

Username or email

Password 

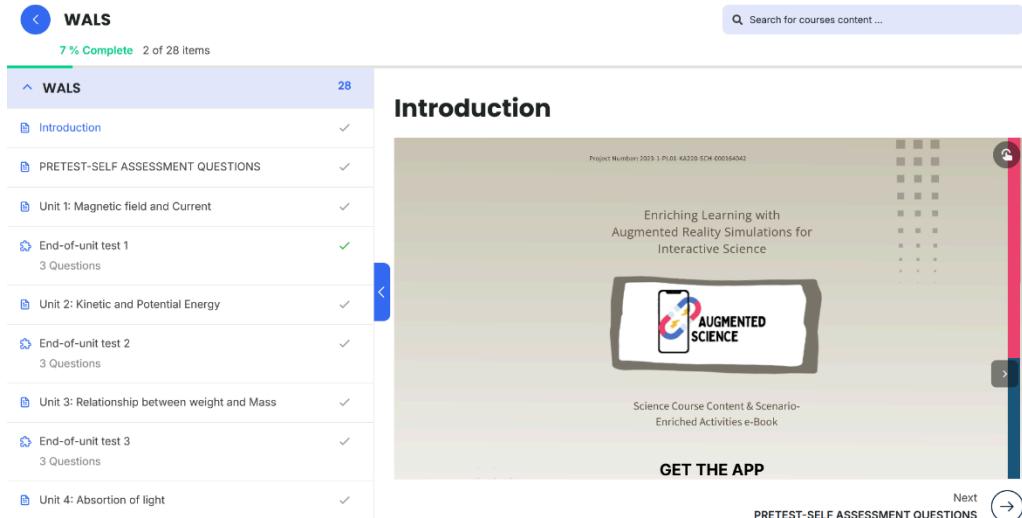
Remember Me [Lost your password?](#)

Login

 Continue with Google

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4. Giriş yaptıktan sonra “Start Course”a (derse başla) tıklayın; bu işlem sizi e-öğrenme platformundaki Giriş (Introduction) modülüne yönlendirecektir.



The screenshot shows the course structure for 'WALS' (7% Complete, 2 of 28 items). The left sidebar lists modules: Introduction, PRETEST-SELF ASSESSMENT QUESTIONS, Unit 1: Magnetic field and Current, End-of-unit test 1 (3 Questions), Unit 2: Kinetic and Potential Energy, End-of-unit test 2 (3 Questions), Unit 3: Relationship between weight and Mass, End-of-unit test 3 (3 Questions), and Unit 4: Absorption of light. The right panel displays the 'Introduction' module content, which includes a brief description, the Augmented Science logo, and a 'GET THE APP' button.

5. Giriş'i okumak için sağ ve sol taraftaki okları kullanınız.



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6. Aynı şekilde, sırasıyla **12 ünitemi** inceleyiniz. Her ünitede, kuramsal içerik ve öğrenme etkinlikleri yer almaktadır.

- **Ünite 1:** Manyetik Alan ve Akım
- **Ünite 2:** Kinetik ve Potansiyel Enerji
- **Ünite 3:** Ağırlık ve Kütle İlişkisi
- **Ünite 4:** Işığın Soğurulması
- **Ünite 5:** Hücre Teorisi
- **Ünite 6:** Tohum Çimlenmesi
- **Ünite 7:** İnsan Vücut Sistemleri
- **Ünite 8:** Fotosentez
- **Ünite 9:** Moleküller Arası Etkileşimler
- **Ünite 10:** Asitler ve Bazlar
- **Ünite 11:** Buhar Basıncı
- **Ünite 12:** Fiziksel ve Kimyasal Değişimler

7. Ünitelerdeki öğrenme etkinliklerini tamamlamak için mobil uygulamayı açınız, ilgili ünitemi ya da etkinliği seçiniz ve mobil cihazınızı işaretleyiciye (marker) doğru tutunuz (**AG Taraması / Scan for AR**).

WALS
7 % Complete 2 of 28 items

From Discovery to Invention

Ørsted's discovery inspired scientists like Michael Faraday and Joseph Henry to explore more about electromagnetism. Thanks to their work, it became clear that electricity and magnetism are connected. This idea – turning electricity into magnetism – is the basic principle behind electric motors and generators.

Scan the QR code below to learn more about how this principle powers everyday machines!

Scan for AR

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Name Type Size Download

Previous PRETEST-SELF ASSESSMENT QUESTIONS Next End-Of-Unit Test 1

8. İşaretleyici (marker) hem slaytlarda hem de e-kılavuzun son sayfasında yer almaktadır. Dilerseniz bu görseli yazdırıp düz bir zemine yerleştirebilir ve mobil cihazınızı üzerine tutarak uygulamayı kullanabilirsiniz.



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9. WALS platformunda her ünitenin sonunda yer alan kısa bilgi testini çözerek ilerleyiniz.

WALS
7% Complete 2 of 28 items

End-of-unit test 4
3 Questions

Unit 5: Cell Theory
3 Questions

End-of-unit test 5
3 Questions

Unit 6: Seed Germination
3 Questions

End-of-unit test 6
3 Questions

Unit 7: Human body systems
3 Questions

End-of-unit test 7
6 Questions

Unit 8: Photosynthesis
3 Questions

End-of-unit test 8
3 Questions

Unit 9: Interactions between Molecules
3 Questions

End-of-unit test 9
3 Questions

Unit 10: Acids and Bases
3 Questions

End-of-unit test 10
3 Questions

Unit 11: Vapor Pressure
3 Questions

End-of-unit test 11
3 Questions

End-of-unit test 4
Question 1 of 3

1. What Is The Capture Of Light By A Substance Called?

Reflection

Absorption

Fracture

Shadowing

Dispersal

[Check Answers](#)

1 2 3 Next

← Previous
Unit 4: Absorption Of Light

Next
Unit 5: Cell Theory →

10. Her testin ardından, aldığınız puanlara ilişkin bir özeti tarafınıza sunulacaktır.

End-of-unit test 3



Failed ×

Time spent	00:00:12
Points	2 / 3
Questions	3
Correct	2
Wrong	1
Skipped	0
Minus points	0

Retake

Review



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11. Daha sonra testleri **yeniden çözebilir veya gözden geçirerek** doğru cevapları kontrol edebilirsiniz.

End-of-unit test 3

1. Which Of The Following Is A Correct Statement About Mass?

It depends on the force of gravity.

It is synonymous with weight.

It is measured with an equal-armed balance scale.

It is expressed in Newtons.

Measured with a dynamometer.

Correct 1/1 point

1 2 3 Next

Result

12. WALS platformunda yer alan **Ön Testi**, 12 üniteye başlamadan önce; **Son Test-Öz Değerlendirme** bölümünü ise tüm üniteleri tamamladıktan sonra doldurunuz.

WALS 7 % Complete 2 of 28 items

<input type="radio"/> End-of-unit test 6 3 Questions	✓
<input type="radio"/> Unit 7: Human body systems	✓
<input type="radio"/> End-of-unit test 7 6 Questions	✗
<input type="radio"/> Unit 8: Photosynthesis	✓
<input type="radio"/> End-of-unit test 8 3 Questions	✓
<input type="radio"/> Unit 9: Interactions between Molecules	✓
<input type="radio"/> End-of-unit test 9 3 Questions	✓
<input type="radio"/> Unit 10: Acids and Bases	✓
<input type="radio"/> End-of-unit test 10 3 Questions	✓
<input type="radio"/> Unit 11: Vapor Pressure	✓
<input type="radio"/> End-of-unit test 11 3 Questions	✓
<input type="radio"/> Unit 12: Physical and Chemical changes	✓
<input type="radio"/> End-of-unit test 12 3 Questions	✓
<input type="radio"/> POSTTEST-SELF ASSESSMENT QUESTIONS	

the number of molecules that turn into vapor will increase, so the equilibrium vapor pressure also increases with temperature. The equilibrium vapor pressure of a liquid does not depend on the volume, shape, or amount of liquid in the container.

The image below models the formation of equilibrium vapor pressure over time in a closed container.

In the first case, a large amount of water was placed in the container and the container was tightly sealed with a stopper. After waiting 5 minutes, the second case occurred, and after waiting 15 minutes, the third case occurred. After 30 minutes, there was no change in the water level in the third case.

Therefore,

- At the third stage, equilibrium vapor pressure was established.
- If the volume of the container is increased, the number of vapor molecules remains unchanged.
- After 30 minutes, the evaporation process had stopped.

Which of these statements are correct?

A) Only I
 B) Only II
 C) Only III
 D) I and II
 E) I and III

13. Tüm kursu tamamladıktan sonra, lütfen **değerlendirme formunu** doldurunuz.



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WALS

10 % Complete 3 of 28 items

End-of-unit test 6	3 Questions	✓
Unit 7: Human body systems		✓
End-of-unit test 7	6 Questions	✗
Unit 8: Photosynthesis		✓
End-of-unit test 8	3 Questions	✓
Unit 9: Interactions between Molecules		✓
End-of-unit test 9	3 Questions	✓
Unit 10: Acids and Bases		✓
End-of-unit test 10	3 Questions	✓
Unit 11: Vapor Pressure		✓
End-of-unit test 11	3 Questions	✓
Unit 12: Physical and Chemical changes		✓
End-of-unit test 12	3 Questions	✓
POSTTEST-SELF ASSESSMENT QUESTIONS		✓
Evaluation of AR Ebook		✓

Evaluation of AR Ebook

AUGMENTED SCIENCE- Enriching Learning with Augmented Reality Simulations for Interactive Science

Project Number: 2023-1-PL01-KA220-SCH-000164042

Zaloguj się w Google, aby zapisać postępy. Więcej informacji

The aim of the following questionnaire is to gather the essential data for the assessment of the AR Ebook and make it a profitable resource for the users. The survey is anonymous. You are kindly asked to choose the correct options or provide the answers if necessary.

1. Were the scientific concepts presented in a clear and understandable way?
1 is the lowest, 5- the highest

1 2 3 4 5

Appropriate
 Above
 Below

2. Was the language used in the e-book appropriate for your level of knowledge?

Appropriate
 Above
 Below

14. Çalışma hızınızı kendiniz belirleyebilirsiniz; ancak WALS platformundaki her üniteyi incelemenizin ve testleri tamamlamanızın yaklaşık **30 dakika** süreceğini öngörmekteyiz.

15. "Materyaller" bölümünde, her üniteye ait PDF dosyasını indirebilirsiniz.

Home > Courses > Science

WALS

A course by Augmentedscience

Oct/2025 16 lessons English

Description	Curriculum	Materials	
Name	Type	Size	Download
1- (Unit 1: Magnetic field and Current)	pdf	1.17MB	Download
2- (Unit 2: Kinetic and Potential Energy)	pdf	814.46KB	Download
3- (Unit 3: Relationship between weight and Mass)	pdf	1MB	Download
4- (Unit 4: Absorption of light)	pdf	920.87KB	Download
5- (Unit 5: Cell Theory)	pdf	944.58KB	Download
6- (Unit 6: Seed Germination)	pdf	668.27KB	Download
7- (Unit 7: Human body systems)	pdf	1.13MB	Download
8- (Unit 8: Photosynthesis)	pdf	900.42KB	Download
9- (Unit 9: Interactions between Molecules)	pdf	1.36MB	Download
10- (Unit 10: Acids and Bases)	pdf	815.67KB	Download
11- (Unit 11: Vapor Pressure)	pdf	784.26KB	Download
12- (Unit 12: Physical and Chemical changes)	pdf	613.89KB	Download

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16. Profilinize tıklayarak tamamladığınız adımları, başarı kayıtlarınızı ve erişebileceğiniz kursları görüntüleyebilirsiniz.

LP Profile

The screenshot shows the LP Profile page for user Filiz Hititsoy. On the left, a sidebar includes 'My Courses' (Enrolled Course 1, Inprogress Course 1, Finished Course 0), 'Certificates' (0), 'Quizzes' (1), 'Wishlist' (0), 'Orders' (0), 'Settings' (dropdown), and 'Logout'. The main area shows a table of completed courses with one entry: 'WALS' (Result: 0%, Expiration time: Never, End time: -). The table has columns for icon, name, result, expiration time, and end time.

	Name	Result	Expiration time	End time
	WALS	0%	Never	-

17. Forum bölümü, katılımcıların fikir ve deneyim paylaşımına imkân tanıyarak iş birliğini ve akran öğrenmesini destekler.

e-Hub Forum

This forum has 4 topics, 1 reply, and was last updated 6 days, 5 hours ago by Agnes.

Topic	Voices	Posts	Last Post
AR-Ebook	1	1	6 days, 5 hours ago Agnes
WALS accelerated my learning process	1	1	1 week ago Irena
My experiences with the Augmented Science mobile application	2	2	1 week ago Carlos
Details in AR displays	1	1	1 week ago Carlos



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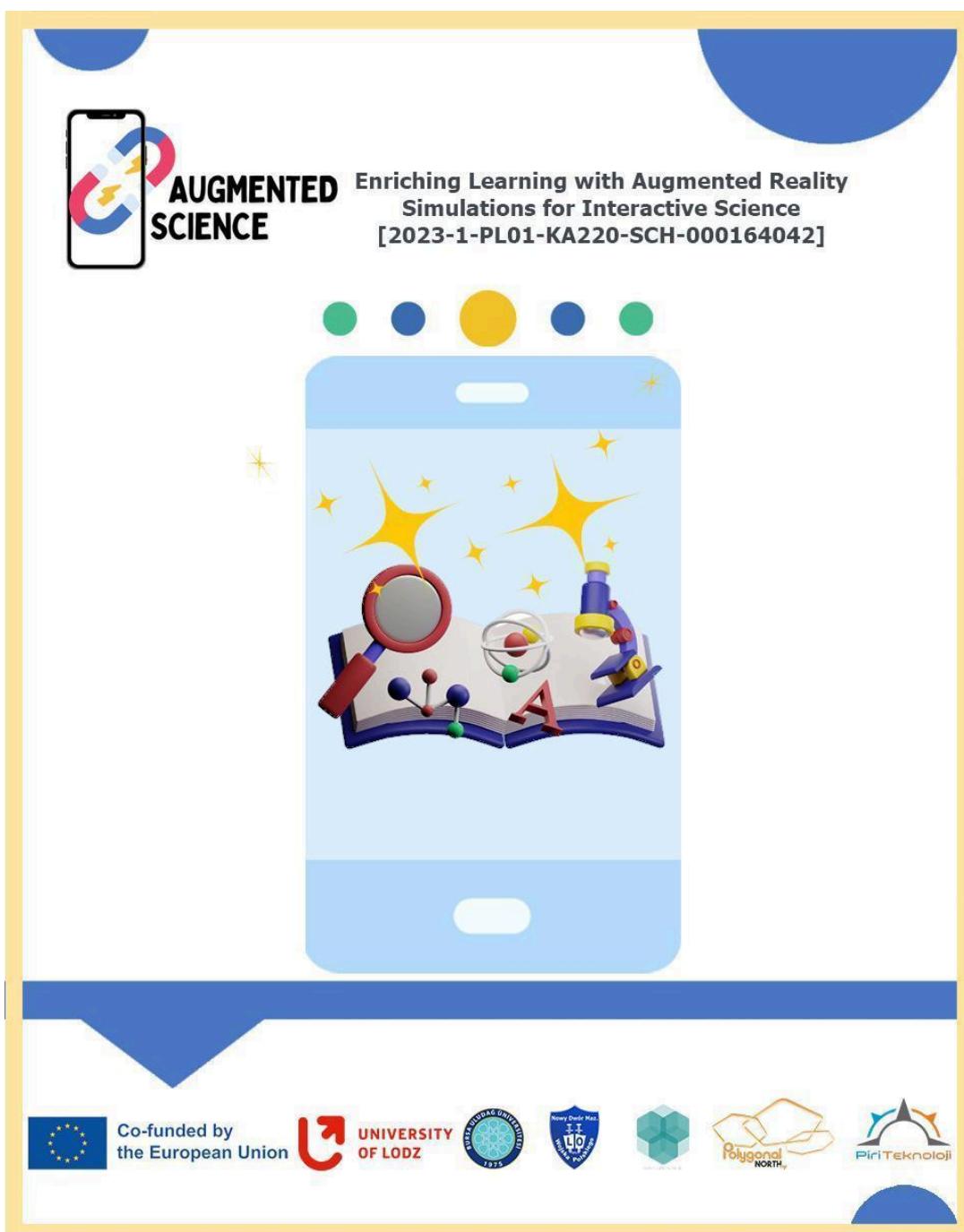
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18. Uygulama ile ilgili herhangi bir sorunuz ya da görüşünüz olursa, bireysel danışmanlık randevusu oluşturmak için **Muhsin** (muhsinkyk08@gmail.com) veya **Yahya** (dogan.yahya.16@gmail.com) ile iletişime geçebilirsiniz.

19. Uygulama veya e-kitap hakkında bir sorunuz ya da görüşünüz olursa, bireysel danışmanlık randevusu ayarlamak üzere **Filiz Hititsoy** (filiz@polygonalnorth.fi) ile iletişime geçebilirsiniz.

Augmented Science Mobil Uygulaması için İşaretleyici (marker):



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