



# Innovative Model of learning STEM in secondary schools

**2022-1-TR01-KA220-SCH-  
000087583**

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**April 25-26, 2023**



**1st Transactional Project Meeting In Konya, Türkiye**



**Studies on STEM Education in Türkiye are grouped under 3 groups.**

- 1. Academically STEM Education Studies**
- 2. Institutions and Organizations for STEM Education**
- 3. Mostly Used Applications in STEM Education**



## Academically STEM Education Studies

### What is STEM?

is an approach to learning that integrates the areas of

- **S**cience
- **T**echnology
- **E**ngineering and
- **M**athematics







## Academically STEM Education Studies

## Academic Studies on STEM Education in Türkiye

Council of Higher Education – Thesis Center

Subject: Education and Training

Title: STEM

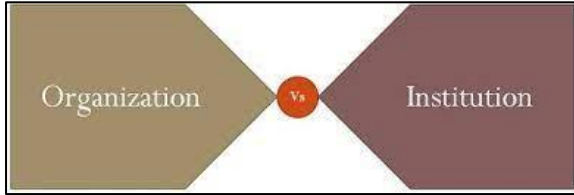
**490 results** (412 Master; 78 Doctorate)

Title: science technology engineering math

**16 results** (10 Master; 6 Doctorate)

\* Exclude (STEM)





## Institutions and Organizations for STEM Education

Institutions and organizations working on STEM education in Turkey can be expressed as follows.

- **Universities**
- **Ministry of National Education**
- **Private Organizations**

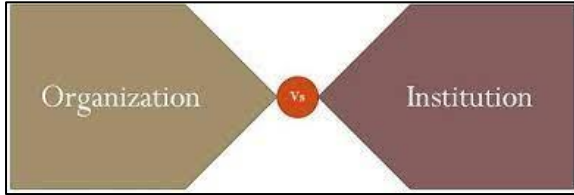


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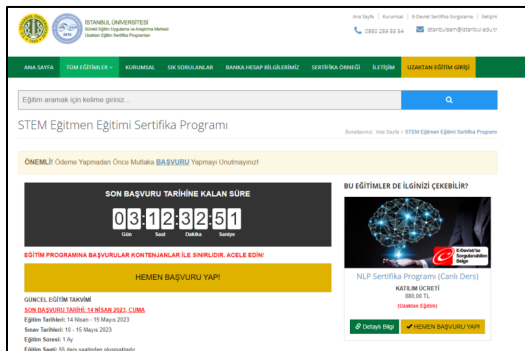
# STEM APPLICATIONS IN TÜRKİYE



## Institutions and Organizations for STEM Education

- **Universities** - Some of the STEM education activities in universities are as follows.

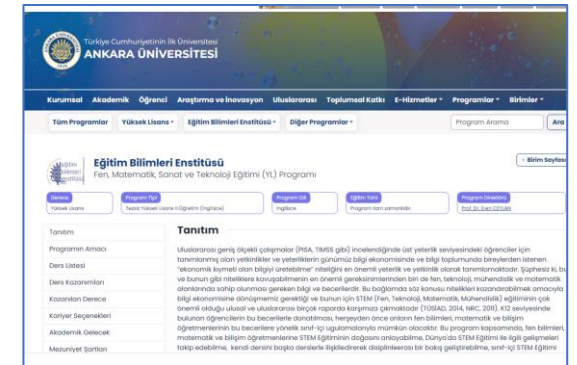
### Distance Education Programs



### Certificate Programs



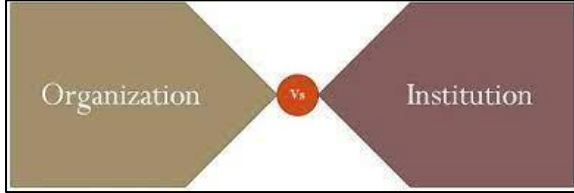
### Postgraduate Education Program



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# STEM APPLICATIONS IN TÜRKİYE



## Institutions and Organizations for STEM Education

### • Universities – STEM Education Examples

ISTANBUL ÜNİVERSİTESİ  
Sistemli Eğitim Uygulama ve Araştırma Merkezi  
Uzaktan Eğitim Sertifika Programları

ANA SAYFA TÜM EĞİTİMLER KURUMSAL SIK SORULANLAR BANKA HESAP BİLGİLERİMİZ SERTİFİKA ÖRNEĞİ İLETİŞİM UZAKTAN EĞİTİM GİRİŞİ

Eğitim aramak için kelime giriniz...

STEM Eğitimci Eğitimi Sertifika Programı

Buradasınız: Ana Sayfa > STEM Eğitimci Eğitimi Sertifika Programı

**ÖNEMLİ!** Ödeme Yapmadan Önce Mutlaka **BAŞVURU** Yapmayı Unutmayınız!

**SON BAŞVURU TARİHİNE KALAN SÜRE**

03 | 12 | 32 | 51  
Gün Saat Dakika Saniye

**EĞİTİM PROGRAMINA BAŞVURULAR KONTENJANLAR İLE SINIRLI'DIR. ACELE EDİN!**

**HEMEN BAŞVURU YAP!**

**BU EĞİTİMLER DE İLGİNİZİ ÇEKEBİLİR?**

NLP Sertifika Programı (Canlı Ders)  
KATILIM ÜCRETİ 980,00 TL (Uzaktan Eğitim)  
Detaylı Bilgi **HEMEN BAŞVURU YAP!**

**GÜNCEL EĞİTİM TAKVİMİ**  
**SON BAŞVURU TARİHİ: 14 NİSAN 2023, CUMA**  
Eğitim Tarihi: 14 Nisan - 15 Mayıs 2023  
Sınav Tarihi: 10 - 15 Mayıs 2023  
Eğitim Süresi: 1 Ay  
Eğitim Saati: 55 ders saatinden oluşmaktadır.

STEM SCHOOL

SCIENCE  
TECHNOLOGY  
ENGINEERING  
MATHEMATICS  
STEM/ROBOTİK

Anasayfa STEM Okulu Hakkında STEM Projesi STEM Öğretmeni Sertifika Programı STEM Koordinatörlüğü Sertifika Programı STEM Lab Projelerimiz Kitaplar

Eğitim Programlarımız Etkinliklerimiz Konuşmalarımız STEM Öğretimi Dersi İletişim

**BİZİ TAKİP EDİN!**

**STEM OKULU HAKKINDA**

STEM Okulu (STEM School), İstanbul Aydın Üniversitesi Eğitim Bilimleri ve Teknolojileri Araştırma ve Uygulama Merkezi tarafından 2015 yılında kurulmuştur. STEM Okulu, STEM alanlarında (fen, teknoloji, mühendislik ve matematik) öğretmenlerin ve öğrencilerin yetkinliklerini artırmak, okulların STEM okullarına dönüşümüne destek olmak amacıyla kurulmuştur. STEM Okulunun vereceği eğitimler, bütünlükli STEM, robotik, maker ve programlamayı da kapsamaktadır. STEM Okulu Türkiye STEM Eğitimi Birliği'nin ilk üyesi olmuştur.

**STEM OKULU OLMAK İSTEYEN KURUMLARIMIZA DESTEK OLUYORUZ!**  
**STEM ÖĞRETMENİ YETİŞTİRİYORUZ!**  
**ÖĞRENCİLERE BÜTÜNLEŞİK STEM EĞİTİMİ VERİYORUZ!**  
**STEM LAB KURMAK İSTEYEN KURUMLARIMIZA DESTEK OLUYORUZ!**

**STEM OKULU YÖNETİMİ**

STEM Okulu Direktörlüğüne Dış Dönerim Akademi

SAKARYA UYGULAMALI BİLİMLER ÜNİVERSİTESİ

SAYEM  
Mesleki Gelişim Eğitim Merkezi

Anasayfa Kurumsal Uzaktan Eğitimler Personel Belgelendirme Örgün Eğitimler

**Mesleki Gelişim Kategorisi**

Anasayfa / Uzaktan Eğitim / Mesleki Gelişim / STEM Eğitimci Eğitimi (Uygulayıcı Belge)

**STEM Eğitimci Eğitimi (Uygulayıcı Belge)**

WhatsApp'dan destek al!

720 TL Son Başvuru Tarihi 28 Nisan 2023

**Eğitime Katıl**

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University - STEM Instructor Training Certificate Program)

(STEM SCHOOL - STEM School project within Istanbul Aydın University)

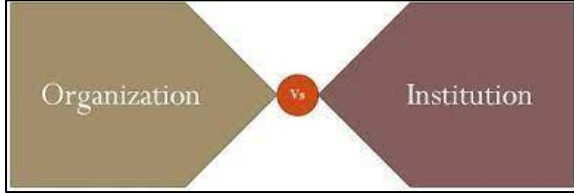
(Sakarya Unive



Co-funded by the European Union

or Training)

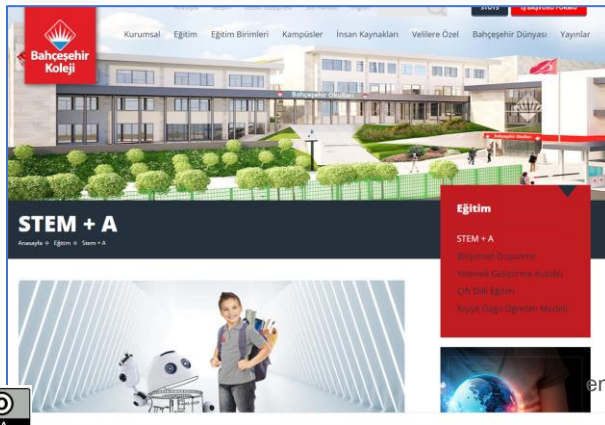
# STEM APPLICATIONS IN TÜRKİYE



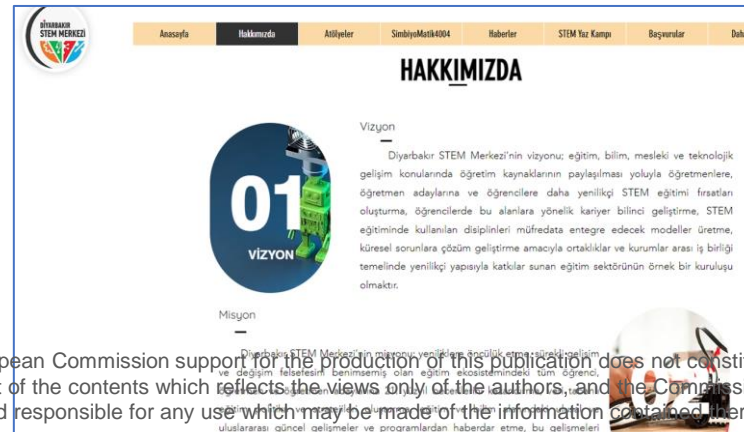
## Institutions and Organizations for STEM Education

- **Ministry of National Education**

### Applications in Schools



### STEM Education Centers

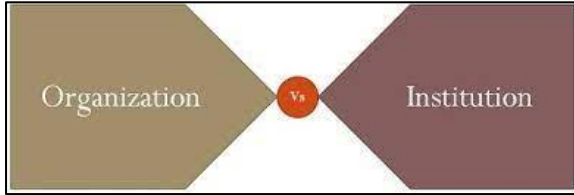


### Science and Art Centers



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# STEM APPLICATIONS IN TÜRKİYE



## Institutions and Organizations for STEM Education

- **Ministry of National Education**

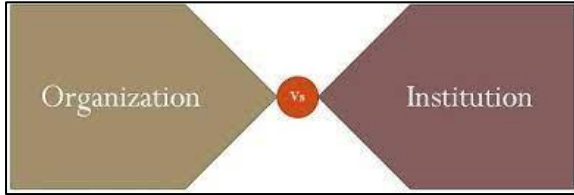


In addition, studies are carried out in the "General Directorate of Innovation and Educational Technologies" under the Ministry of National Education.

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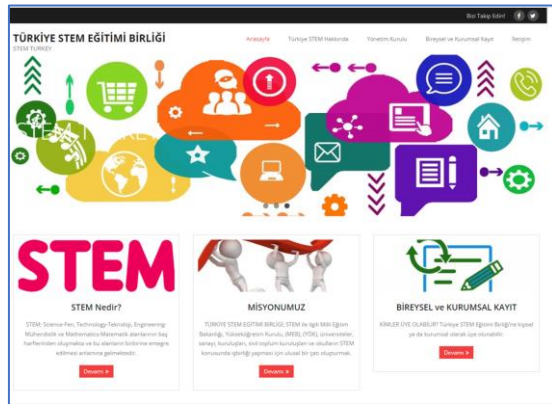
# STEM APPLICATIONS IN TÜRKİYE



## Institutions and Organizations for STEM Education

### • Private Organizations

#### Information Activities



<http://stemtr.org/>

#### Practitioner Training Centers



#### Equal Opportunity Projects



#### UNESCO - STEM School for Girls

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# STEM APPLICATIONS IN TÜRKİYE



## Mostly Used Applications in STEM Education

- **STEM Web Application in Türkiye**

education DERS PLANLAN

### LEGO® öğrenme Sisteminin Tanıtımı

Sezgisel, kapsayıcı ve son derece uyarlanabilir uygulamalı bir öğrenme sistemi olan LEGO® Öğrenme Sistemi ile STEM öğrenimini yeniden düşünün ve sınıfta coşku uyandırın. Uygulamalı, eğlenceli STEM öğrenimi için sınırsız olanaklar sunarak öğrencilerin becerilerini geleceğe hazırlar ve onları özgüvenli, yaşam boyu öğrenen bireyler haline getirir.

LEGO® Education SPIKE™ Essential, oyunla problem çözme ve hikaye anlatımı yoluyla öğrencilerin STEM'e ilgisini uyandırarak onları esnek, bağımsız düşünürler olmaya hazırlayan yeni bir ilkökul STEM çözümüdür.

> DAHA FAZLA BİLGİ

eArgümantasyon Uygulama Girişi

ANASAYFA PROJE HAKKINDA KULLANIM KILAVUZLARI EKİBİMİZ BİZDEN HABERLER İLETİŞİM

### E-Argümantasyon

Fen Eğitimine Yönelik Yenilikçi Bir Yazılımın Geliştirilmesi, Uygulanması Ve Değerlendirilmesi

219K028 Nolu Tübitak Projesi

[www.education.lego.com/tr-tr](http://www.education.lego.com/tr-tr)

[eargumantasyon.ibu.edu.tr/](http://eargumantasyon.ibu.edu.tr/)

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## Mostly Used Applications in STEM Education

- **STEM Mobile Application in Türkiye**



### ARETE Pilot 2 STEM Applications Project

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## LEGO® BOOST Mobile App



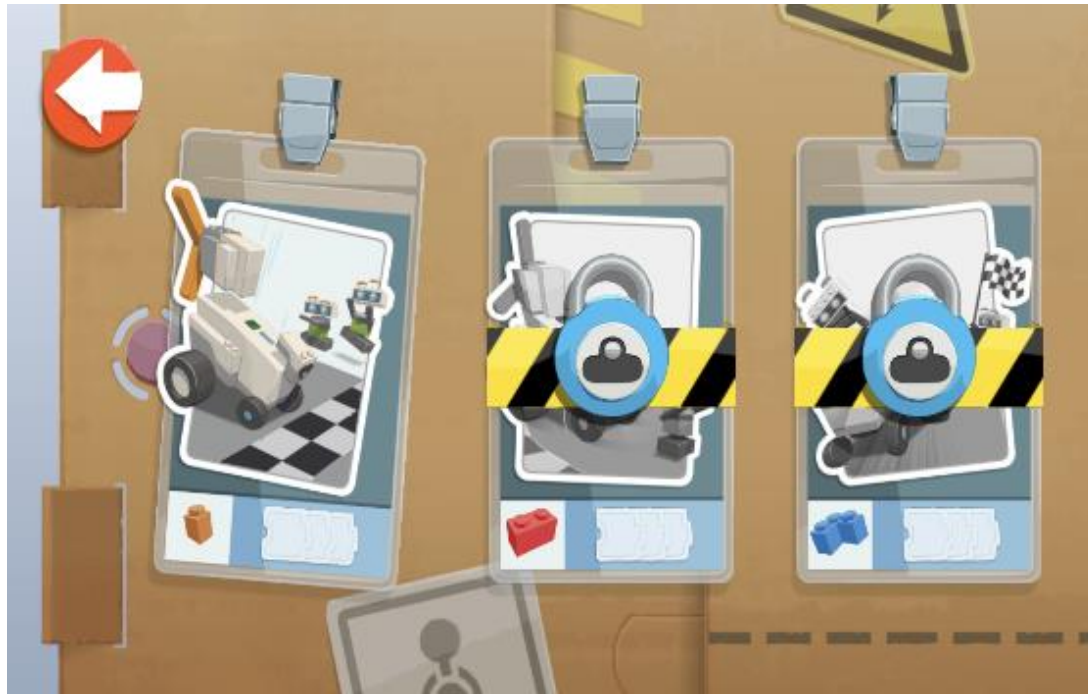
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# STEM APPLICATIONS IN TÜRKİYE



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## LEGO® BOOST Mobile App



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## LEGO® BOOST Mobile App

Merhaba, yetişkin



Devam etmek için bu küçük matematik problemini çözmelisin

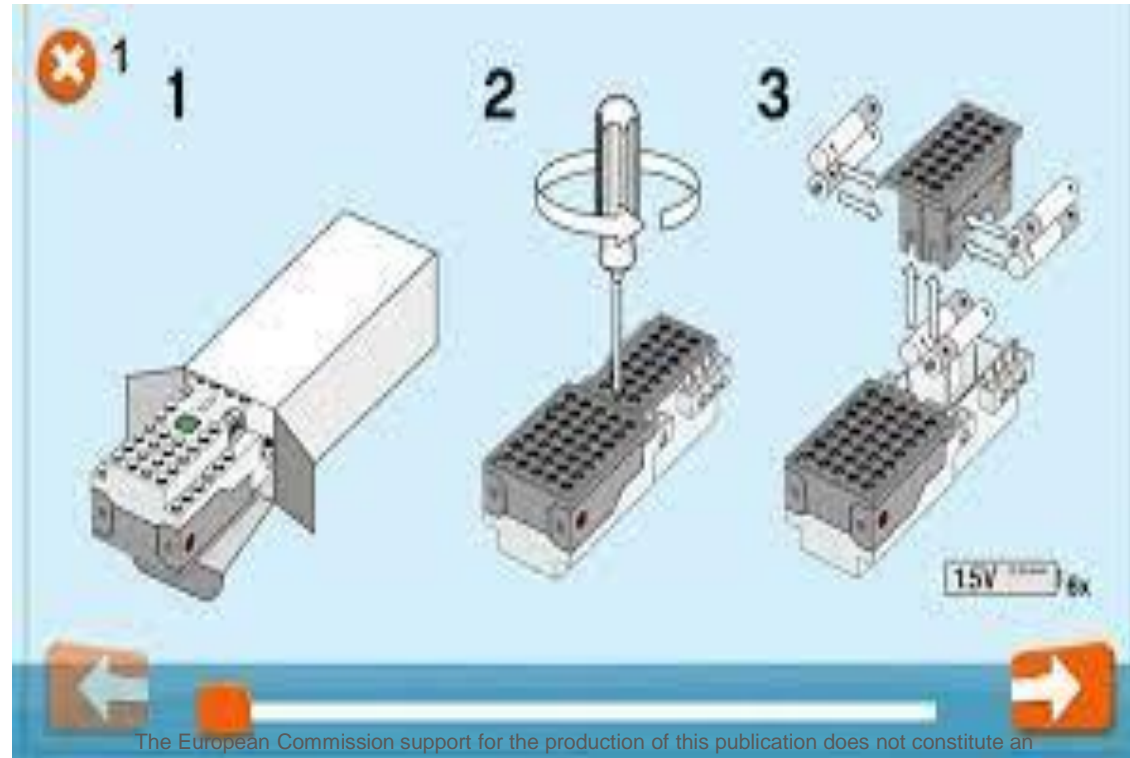
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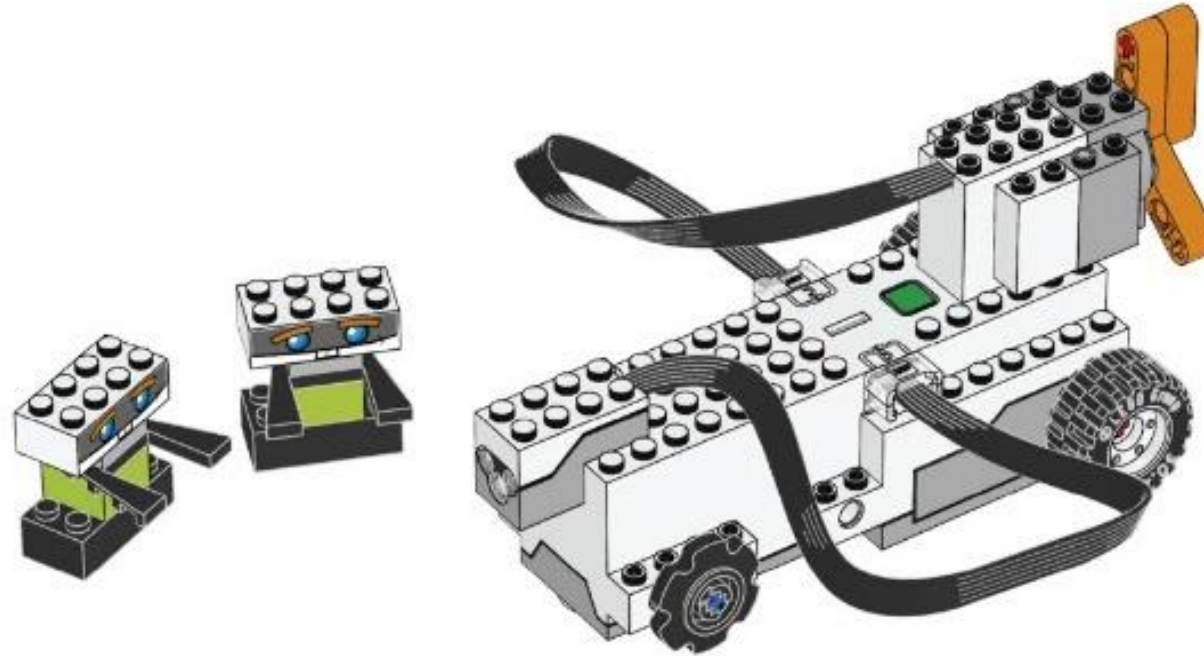
## LEGO® BOOST Mobile App



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# STEM APPLICATIONS IN TÜRKİYE



## LEGO® BOOST Mobile App



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<b>Title/Name of the example</b>	<b>STEM Education and Coordination Center Project</b>
<b>Organization, country and website</b>	STEM Education and Coordination Center, Türkiye <a href="https://stemegitimmerkezi.com/">https://stemegitimmerkezi.com/</a>
<b>Brief description (abstract)</b>	<p>It is jointly funded by the European Union and the Republic of Türkiye for Increasing the Quality of Special Education Service.</p> <p>The overall aim of the project is to contribute to the improvement of the quality of special education services.</p>
<b>Age range</b>	Science teachers working in science and art centers
<b>Subject/discipline or crossdisciplinary</b>	<p>Accessible and clean energy, climate action, Sustainable cities and communities, Clean water and sanitation</p>

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<b>Title/Name of the example</b>	<b>Scientix Project</b>
<b>Organization, country and website</b>	Ministry of National Education, Turkiye <a href="https://scientix.eba.gov.tr/">https://scientix.eba.gov.tr/</a>
<b>Brief description (abstract)</b>	Inquiry-based STEM education projects and materials are shared on the portal, which all teachers can use in their classes, aiming to develop students' inquiry, scientific thinking, research, invention and production skills.
<b>Age range</b>	Students from 7 till 18 years old (Also teachers, academics, school administrators, families and anyone interested in STEM education)
<b>Subject/discipline or crossdisciplinary</b>	<b>Math, Science, Technology</b>

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<b>Title/Name of the example</b>	<b>STREAM It Up</b>
<b>Organization, country and website</b>	Manisa Celal Bayar Üniversitesi, Türkiye <a href="https://stream.mcbu.edu.tr/">https://stream.mcbu.edu.tr/</a>
<b>Brief description (abstract)</b>	To develop STEAM and Artificial Intelligence skills of young people in an integrated manner with English, the language of science of the era, and to enable them to effectively combine different disciplines and produce solutions. At the same time; to help them become proficient in 21st century skills such as leadership, representation and teamwork.
<b>Age range</b>	High School Level
<b>Subject/discipline or crossdisciplinary</b>	Foreign Languages Teaching

<b>Title/Name of the example</b>	<b>Science, Mathematics and Technological Applications Education with a Focus on Modern Art</b>
<b>Organization, country and website</b>	Aksaray Üniversitesi, Türkiye <a href="https://smartprojetubitak.com/">https://smartprojetubitak.com/</a>
<b>Brief description (abstract)</b>	<p>In this project, which is planned for visual arts, science, mathematics and informatics teachers, it is aimed to create an interdisciplinary, enriched and integrated education module at the end of the process by addressing modern art, mathematics, science and technology education. In this way, teachers will be able to prepare enriched and differentiated education modules by using their science, informatics and mathematics skills under the roof of modern art.</p>
<b>Age range</b>	<b>Teachers, Faculty Members</b>
<b>Subject/discipline or</b>	<b>Visual Art, Science, Math, Tech</b>

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