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Davidson Institute, the
Educational Arm of the
Weizmann Institute.

Science Video Activities – A New Science Teaching



OUR MISSION

DAVIDSON
INSTITUTE OF
SCIENCE
EDUCATION WILL
BE A NATIONAL
AND GLOBAL
BEACON OF
EXCELLENCE,
INNOVATION AND
LEADERSHIP IN
ALL ASPECTS OF
SCIENCE
EDUCATION



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Science news

The Family Tree of Mankind

An American-Israeli study collected important information from data of millions of users on social networks →



Dr. Yonat Eshchar

🕒 4 min

📅 March 2



Science news

Israeli Study Finds: Smoking Cessation Drugs have Low Long-Term Efficacy

Integration of dozens of studies revealed that the drugs benefit only eight percent of smokers one year post treatment →



Dr. Iddo Magen

🕒 4 min

📅 January 31



This week's most read article

1

Scientific Study of Chinese Medicine

Despite its popularity, Chinese medicine does not meet the basic standards of modern →

2

The Family Tree of Mankind

An American-Israeli study collected important information from data of millions of users →

3

Israeli Study Finds: Smoking Cessation Drugs have Low Long-Term Efficacy

Integration of dozens of studies revealed that the drugs benefit only eight percent of →

The Davidson Institute Website

Types of science articles in Davidson's website

DIY experiments



Science at Home

The Amazing Self-Emptying Cup (Pythagoras' Cup)

In this experiment, we'll build a special cup that empties entirely as soon as the →

5 min

Today in science history



Science History

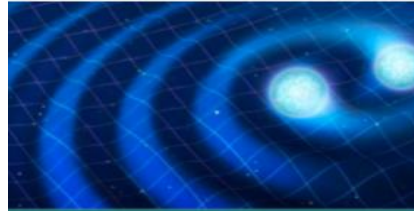
On this Day: The Maritime Bridge to

147 years to the inauguration of the Suez Canal, probably the largest and most important



Rami Shalhevet

Science news



Is Ritalin Really Effective?

Do ADHD drugs actually work? (mostly yes) Is there a conspiracy to distribute them? (probably not)



Dr. Maayan Barnea Zohar

Ask a scientist



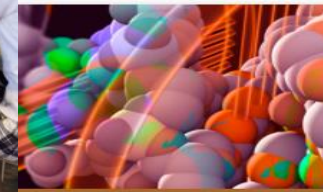
Expert

Do animals react to a solar eclipse?

Do animals change their behavior during a solar eclipse, and now there →

by Gruper

Science magazine



Panorama

Evolution's Rival

Gene Drive - the new genetic engineering technology promoting the rapid spread of



Alex Kertser



Davidson Institute
The Educational Arm of the Weizmann Institute

WEIZMANN INSTITUTE OF SCIENCE

Teaching and learning in the digital age?



סרטונים ופעילויות

ברוכים הבאים למאגר הסרטונים של מכון דוידסון.
באן תוכלו לחפש הצעות לפעילויות וסרטונים אינטראקטיביים.



חיפוש חופשי

Chemistry

Physics

Biology

📁 search by skills 📁 search by grade 🔍 search by free text

נמצאו 128 סרטונים

אוסמוזה



2 פעילויות

00:10:45

פרס נובל בכימיה 2009 - מי זכה בו ולמה



2 פעילויות

00:03:58

הפקת דנ"א מתותים בבית!



3 פעילויות

00:04:05

שוטון - המנוע המופלא



פעילות אחת

00:02:01

כרומוזומים



2 פעילויות

00:04:16

תרגום רנ"א לחלבון



2 פעילויות

00:03:32

מה מאיים על החמצן שלנו פוטוסינתזה מידבקת מחקר שנערך בסכנין



פעילות אחת

00:02:58

ממברנות ודופן התא



פעילות אחת

00:06:16

כאשר תא אחד הופך לשניים - ציטוקינסיס



פעילות אחת

00:03:48

המיטוכונדריה - תחנת הכח של



פוטוסינתזה



GFP - החלבון הפלורסנטי



Biology

Human systems

Cell's biology

Microbiology

Ecology

Adaptation

Homeostasis

Genetic

Photosynthesis

Evolution

Plants



סרטונים ופעילויות

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חיפוש חופשי

Chemistry

Physics

Biology

What's in it for the teacher?



- All activities are based on watching one or more videos
- Active inquiry learning
- Self-discovery as individuals, pairs or teams
- Using scientific principles in everyday life, that relevant to the students' life
- Relevant skills for learning in a network society

What are the skills our activities based on?

- Collaboration (e.g. team work, peer review)
- Creativity
- High order thinking (e.g. *critical thinking, asking questions, decisions making*)
- Gathering and integrating data
- Collective knowledge building
- Reflecting on the learning process



What is the teacher's role?



Teachers need digital tools and should master how to use them within the teaching process for knowledge building and how to make their students to take responsibility for the learning process

Next steps?



- Adding videos and activities in Math
- Expanding the activities for the elementary school curriculum
- Developing a “teachers as designers” training
- Keeping a fluent dialogue with the teachers

