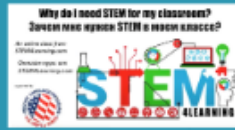
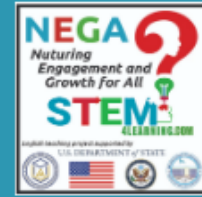


What is STEM - Video Lessons



A collection of short videos explaining the core concepts of STEM including the science and engineering practices and cross-cutting concepts.



This is a series of 17 videos produced in 2020 as part of a project supporting a growing STEM program at School #12 in Bukhara, Uzbekistan. Each video is approximately five minutes long, and they are organized into 6 modules. Each lesson was recorded in English and Russian, however the slide content is identical in both versions (apologies for my less than perfect Russian!). All videos have been uploaded to youtube and can be accessed for playback with the links below. Anyone is welcome to download the English videos, they are available as .mp4 files through the Teachable online education platform and can be found at stem4learning.teachable.com (you will need to join the free course for access).

[Course Overview PDF](#) - provides a short synopsis of each module's videos

Introductory Video

[How this course and the videos are organized \(6:49\)](#) - English Version

[Как организован этот курс и видео \(9:01\)](#) - Русская версия

Module 1 Videos “Why Change? Зачем менять?”

This set of videos is meant as an answer to the question of “Why should I use STEM in my classroom?” and is based on questions I received during my trainings with Uzbek teachers at the Samarqand Institute for Teacher Retraining in 2020.

Этот набор видео задуман как ответ на вопрос, “почему я должен использовать STEM в своем классе?”, и основан на вопросах, которые я получил во время тренингов с узбекскими учителями в Самаркандском институте переподготовки учителей в 2020 году.

Big Ideas:

- **My best STEM teacher**
- **Some brain science for why**
- **What should we teach?**
- **Intro to Skills and Concepts**
- **What about the PISA?**
- **Мой лучший учитель STEM**
- **Немного науки о мозге, почему**
- **Чему мы должны учить?**
- **Введение в навыки и концепции**
- **Что насчет PISA?**

English Versions

- [1A - Why Change? \(5:48\)](#)
- [1B - STEM and My Teaching \(5:25\)](#)
- [1C - What about PISA? \(5:50\)](#)
- [1D - Conclusion of Why Change \(7:02\)](#)

Русские версии

- [1A - Зачем менять? \(6:45\)](#)
- [1B - STEM и мое учение \(8:03\)](#)
- [1C - А PISA? \(8:10\)](#)
- [1D - Заключение «Зачем менять» \(9:04\)](#)