

### OVERVIEW

<b>Topic</b>	DNA Structure
<b>Age range</b>	11-14
<b>Subject</b>	Arts & Sciences
<b>Duration</b>	8 weeks

### DESCRIPTION

This course is a study of the structure and significance of DNA and how genes determine traits. Students learn through hands-on investigations and experiments and by collaborating and communicating with global partners.

TASK TOPICS	LEARNING OBJECTIVES Students will:
<b>Task 1: Getting to Know Our Partners</b>	<ul style="list-style-type: none"> <li>be able to share their culture with their global partners by creating a video to describe a typical school day, favorite activities and sports, and favorite holidays or celebrations.</li> <li>interact with their global partners about their videos.</li> </ul>
<b>Task 2: What is DNA?</b>	<ul style="list-style-type: none"> <li>learn about the structure of DNA and make a model.</li> </ul>
<b>Task 3: DNA Extraction</b>	<ul style="list-style-type: none"> <li>learn about DNA extraction and observe their own DNA.</li> </ul>
<b>Task 4: Genetics</b>	<ul style="list-style-type: none"> <li>understand how genes determine appearance.</li> <li>use a basic Punnett square to understand how traits are passed from parent to offspring.</li> </ul>
<b>Task 5: Reflection</b>	<ul style="list-style-type: none"> <li>reflect on learning about DNA, its structure and importance, and how genes determine appearance.</li> <li>reflect on their culture and on DNA and genetic related learning.</li> </ul>

### United Nations Sustainable Development Goals (UN SDGs)

**Goal 3** Ensure healthy lives and promote well-being for all at all ages

### ISTE Student Standards

- 1.1 Empowered Learner
- 1.2 Digital Citizen
- 1.3 Knowledge Constructor
- 1.4 Innovative Designer
- 1.5 Computational Thinker
- 1.6 Creative Communicator
- 1.7 Global Collaborator