### OVERVIEW

**Topic**  DNA Structure  
**Age range**  11-14  
**Subject**  Arts & Sciences  
**Duration**  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

<table>
<thead>
<tr>
<th>Task Topics</th>
<th>Learning Objectives</th>
</tr>
</thead>
</table>
| **Task 1:** Getting to Know Our Partners | - 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.  
- interact with their global partners about their videos. |
| **Task 2:** What is DNA? | - learn about the structure of DNA and make a model. |
| **Task 3:** DNA Extraction | - learn about DNA extraction and observe their own DNA. |
| **Task 4:** Genetics | - understand how genes determine appearance.  
- use a basic Punnett square to understand how traits are passed from parent to offspring. |
| **Task 5:** Reflection | - reflect on learning about DNA, its structure and importance, and how genes determine appearance.  
- reflect on their culture and on DNA and genetic related learning. |

### 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