DIGITAL CITIES CONNECT!
Moving forward with technology, making sustainable choices

OVERVIEW

The 2016-17 Global Scholars curriculum, *Digital Cities Connect!*, focuses on life in the digital age—how technology influences government, business, and the way individuals live and work. Students develop 21st century skills, research technological innovations, and reflect on their own aspirations. After learning about the relationship between technology and sustainability, students apply their learning to create community action projects. Prior to the program start, educators receive detailed lesson plans, digital student workbooks, and supplemental resources, and participate in online professional development. This document provides an overview of the curriculum to date.

Unit 1: Introduction *September 26—October 28, 2016*	Introduction to Global Scholars, the e-classroom, and international peers
Unit 2: How We Know Things *October 31—December 16, 2016*	Learning how digital communication connects individuals and institutions
Unit 3: How We Make Things *January 2—February 24, 2017*	Exploring innovations in how products are manufactured
Unit 4: How We Live and Work *February 27—March 31, 2017*	Discovering how digital technology influences lives and careers
Unit 5: Community Action Project *April 3—June 9, 2017*	Creating projects to improve the local community or school using digital technology

STRUCTURE

The Global Scholars program runs from late September through early June, with a schedule that allows for flexibility. Each week of the curriculum requires a minimum of two hours of instructional time, which includes time to complete an in-class activity and to write and respond to international peers in an online discussion. Each school decides how to schedule instruction. For example, a class might meet for one two-hour session per week, two one-hour sessions, or another variation. Following the introductory unit, units include extra calendar weeks to account for school holidays and testing schedules.

KEY TERMS

Collaboration: A group of classes from different cities around the world who communicate online in a shared e-classroom. Collaborations are created with attention to geographic diversity, while keeping groups small enough to foster a sense of community and the exchange of ideas.

Community Action Project: A culminating project that takes place for the last two months of every Global Scholars program year. Each class develops a plan to address one of the issues they learned about during the year and make a positive change in their community. For the 2016-17 year, students might organize a student coding club, makerspace, or e-waste recycling program for their neighborhood.

Digital Project: A student project created on the computer at the end of each unit. These multimedia projects can include text, audio, video, and digital images. Students may use digital tools such as iMovie, Prezi, Scratch, SketchUp, Tinkercad or VoiceThread. These projects allow students to synthesize the information they learned throughout the unit, build technology and collaboration skills, and share work with their international peers. Training on these tools is provided to educators during professional development.

E-Classroom: A password-protected, online space for Global Scholars students and educators. Students access Global Scholars workbooks, videos, articles, and additional resources to support learning. Students communicate with peers in their collaboration in discussion posts and share research, writing, and digital projects. Teachers are responsible for reviewing their students' posts. The e-classroom is also monitored daily by Global Cities staff.

Educator Guide and Digital Student Workbook: The educator guide for each unit contains lesson plans, extension activities, teaching tips, and pacing recommendations. The accompanying digital student workbook guides students through each activity and includes space for drafting responses. Students can use the workbook directly on the computer and save their work electronically. Alternatively, workbooks can be printed for students to fill out on paper.

Global Discussion: The discussion boards in the e-classroom where students communicate with international peers. Global discussions allow students to post messages, share photographs, videos, and other digital projects. Students create discussion posts each week in response to a prompt in their workbook, and read and reply to posts created by other students.

Professional Development: Required online professional development sessions conducted via live webinar. These sessions are led by Global Cities staff prior to the start of each unit, and provide training on curriculum activities, use of the e-classroom, and the digital tools used to create projects. Sessions are approximately one hour in length and include educators from cities around the world. To accommodate varying time zones and schedules, multiple sessions are offered.

Teachers' Lounge: An e-classroom for educators. The Teachers' Lounge contains digital files of lesson plans and student workbooks, links to online resources, and discussion boards where teachers can share ideas and best practices, ask questions, and communicate with international colleagues.

Video Chat: Real-time conversations between two classes in different cities using Skype or other video conferencing platforms. Video chats are organized by teachers to enhance curriculum activities and provide an opportunity for students to see and hear their peers around the world.

UNIT 1: WELCOME TO GLOBAL SCHOLARS!

Dates
September 26—October 28, 2016*

Objectives
Students will
- Explore the Global Scholars program and e-Classroom
- Learn world geography as they locate the cities of Global Scholars peers
- Learn how to use online discussion boards to communicate
- Apply cross-cultural communication skills in speaking and writing
- Create a 3-minute video about what it means to be a Global Scholar

Vocabulary
Collaboration, cross-cultural, digital, e-classroom, peer, sustainable

Week*	Topic	Description
1	Introduction to Global Scholars	Students complete a Pre-Program Survey and are introduced to the Global Scholars program, curriculum topic, and e-Classroom. Digital workbooks are distributed. Students read and discuss the Global Scholars Pledge and Internet Safety Agreement. They log in to the e-classroom to view video tutorials on navigating the online platform.
2	World Geography and Online Introductions	Students locate the cities and countries of their international peers on a map. They write their first discussion post to introduce themselves, their school, and the places and activities that make their city unique. The post is shared in the e-classroom *Introductions* global discussion.
3	How to Be a Cross-Cultural Communicator	Students learn cross-cultural communication skills, focusing on audience, language, and culture. They practice these skills when they respond to posts in the *Introductions* discussion. Students also learn how time zones affect global communication.
4-5	Digital Project: What Makes a Global Scholar?	Students discuss what it means to be a Global Scholar. They write a script, rehearse using cross-cultural speaking skills, and create a 3-minute class video. Videos are posted in the *What Makes a Global Scholar?* global discussion. Students view and respond to videos to learn more about their international peers and the cities in which they live.

*Note: Schools will have varying start dates based on school schedules.

UNIT 2: HOW WE KNOW THINGS

Dates
October 31—December 16, 2016

Objectives
Students will
- Compare and reflect on how individuals use digital communication
- Learn how governments use apps, websites, and online media to gather and share information
- Analyze public service announcements (PSAs) as a means for cities to communicate information with residents
- Explore the environmental and social impacts of digital technology
- Create a public service announcement about an environmental or social issue related to digital communication

Vocabulary
Application, code, digital age, e-waste, internet, public service announcement, social media, virtual

Week	Topic	Description
1	Connect with Each Other	Students discuss the role of social media and the internet in how they share information. They discuss cyber bullying, privacy, and internet safety, and research how communication tools have changed in recent years. In the *How I Connect* global discussion, they compare the advantages and disadvantages of online communication.
2	Connect with Your City	Students explore digital resources that residents use to share information with their cities, such as apps and websites for communicating about transportation schedules or other city services. In the *City Talk* global discussion, they share ideas for a student page on their city's website. Students are introduced to code and how it is used to create the digital tools we use every day.
3	Public Service Announcements: How Cities Share Information	Students observe how digital technology helps cities communicate with their residents about important issues such as public health and the environment. They view PSAs from cities around the world and discuss how to adapt one of these PSAs to fit the needs of students at their school. They share ideas in the *City PSA* global discussion.
4	E-Waste and Sustainability	Students learn about the materials used in making digital devices. They research where to dispose of e-waste in their city, and propose ideas for combatting e-waste in their neighborhood in the *Ending E-Waste* global discussion.
5-6	Digital Project: Our Digital Life PSA	Students create a digital public service announcement to inform their city about a social or environmental concern related to technology use, such as e-waste recycling or internet safety. Students share their project in the *Our Digital Life* global discussion. They view and provide feedback on their peers' projects.

UNIT 3: HOW WE MAKE THINGS

Dates
January 2—February 24, 2017

Objectives
Students will
- Identify products made in their city and how those products represent their city
- Research a manufacturer to learn how technology is used in large-scale production
- Learn about innovations in production such as makerspaces and 3D printers
- Explore how to collect and use data in creating new goods and services
- Create a prototype for a new product based on data they collected

Vocabulary
3-D printing, data, cloud computing, efficient, innovation, makerspace, manufacture, product

Week	Topic	Description
1	What My City Makes	Students research products that represent their city. They share their findings and post images in the *My City Makes* global discussion. Students read and reply to posts to learn about products that represent the cities of their international peers.
2	Made with Tech	Students select a local product and research how technology has changed the way it is produced. They share their findings in the *Made with Tech* global discussion.
3	Everyone Can Create	Students learn about makerspaces, workshops where people gather to create and invent together. They explore how people use 3D printers to develop exciting projects. Students share ideas for products they would like to create in the *Innovation Station* global discussion.
4	Data Data!	Students learn the value of data as they conduct a survey about improvements they could make at their school. On the global scale, they read about big data, and the emergence of cloud computing. A class representative shares the results of their survey in the *Data Data!* global discussion.
5-6	Digital Project: A Product for My School	For the unit project, students develop ideas for products based on improvements to their school identified during week 4. They create a prototype using Tinkercad, recycled materials, or 3D printing. Students post their projects in the *School Product* global discussion. They view their peers' projects and provide feedback.

UNIT 4: HOW WE LIVE AND WORK

Dates
February 27—March 31, 2017

Objectives
Students will
- Research the prevalence of digital technology in our daily lives
- Explore how digital technology is applied to many jobs and careers
- Learn about smart cities and the internet of things, and reflect on how they influence daily life
- Create an informative multimedia guide about a public place in their city

Vocabulary
Aspiration, internet of things, sensor, smart city

Week	Topic	Description
1	How Digital is Your Day?	Students learn how to identify digital technology, and look critically at the types of digital technology they use throughout the day. They analyze the helpfulness of each type of technology in the *My Digital Day* global discussion.
2	My Digital Future	Students explore the role of computers and computer programming in many jobs and careers. Students share how they might incorporate technology into their own interests and aspirations in the *My Digital Future* global discussion.
3	How Smart Cities Work	Students study a sampling of smart cities around the world. They learn how smart cities manage traffic, energy use, and other issues. Students share their thoughts on how these cities improve life for their residents in the *Smart Cities* global discussion.
4	Digital Project: Virtual Guide	Students choose a cultural institution, recreational area, or historic site in their city, and create a multimedia guide to inform others about its important features. They post their work in the *Virtual Guide* global discussion for other students to use and enjoy.

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UNIT 5: COMMUNITY ACTION PROJECT

Dates

April 3—June 9, 2017

Objectives

Students will

- Review what they have learned about digital technology and sustainability
- Identify a goal for improving their communities
- Enact their Community Action Project
- Create a digital presentation to document their action
- Share projects with international peers and provide feedback on peers' work
- Understand that small-scale actions can help address large-scale needs

Vocabulary

Action, community, evaluate, goal, impact

Week	Topic	Description
1	Get Inspired	Students gain inspiration by learning about Community Action Projects created by students around the world. They analyze the goals of each plan, how it worked, and who it helped. They brainstorm initial ideas for their own Community Action Project.
2	Identify the Need	Students review curriculum topics such as social media, internet safety, coding, the maker movement and e-waste. They tour their school or neighborhood to identify a need related to one of these topics. Students share findings in the *What We Need* global discussion.
3	Decide and Plan	Students set goals and determine a plan for their class Community Action Project. They create a timeline for their project and select jobs and responsibilities. Students determine what materials they need and what experts they should ask for help. Students document their work through photographs or video.
4	Take Action	Students start putting their plan into action. They announce their plan to international peers and community members, collect needed materials, and begin the active portion of their project. A class representative will share an update in the *Project Updates* global discussion.
5	Test It Out	Students meet to discuss if their Community Action Project is meeting its goals. If needed, they revisit their plan and make revisions. They check their project schedules and help each other finish their tasks. They continue putting their plan into action.

| 6-7 | Create a Digital Presentation | Students use the photographs and videos they recorded to create a digital presentation which shares the story of their work. Digital presentations may take the form of documentary videos, narrated photographic slideshows, or student-designed blogs. |
| 8 | Share with International Peers | Students post their digital presentation in the *Community Action Project* global discussion and view those posted by their international peers. They select one international project and reflect on how it could be implemented in their own community. Students complete the Post-Program Survey. Classes may hold final celebrations and present projects to their school or community. |