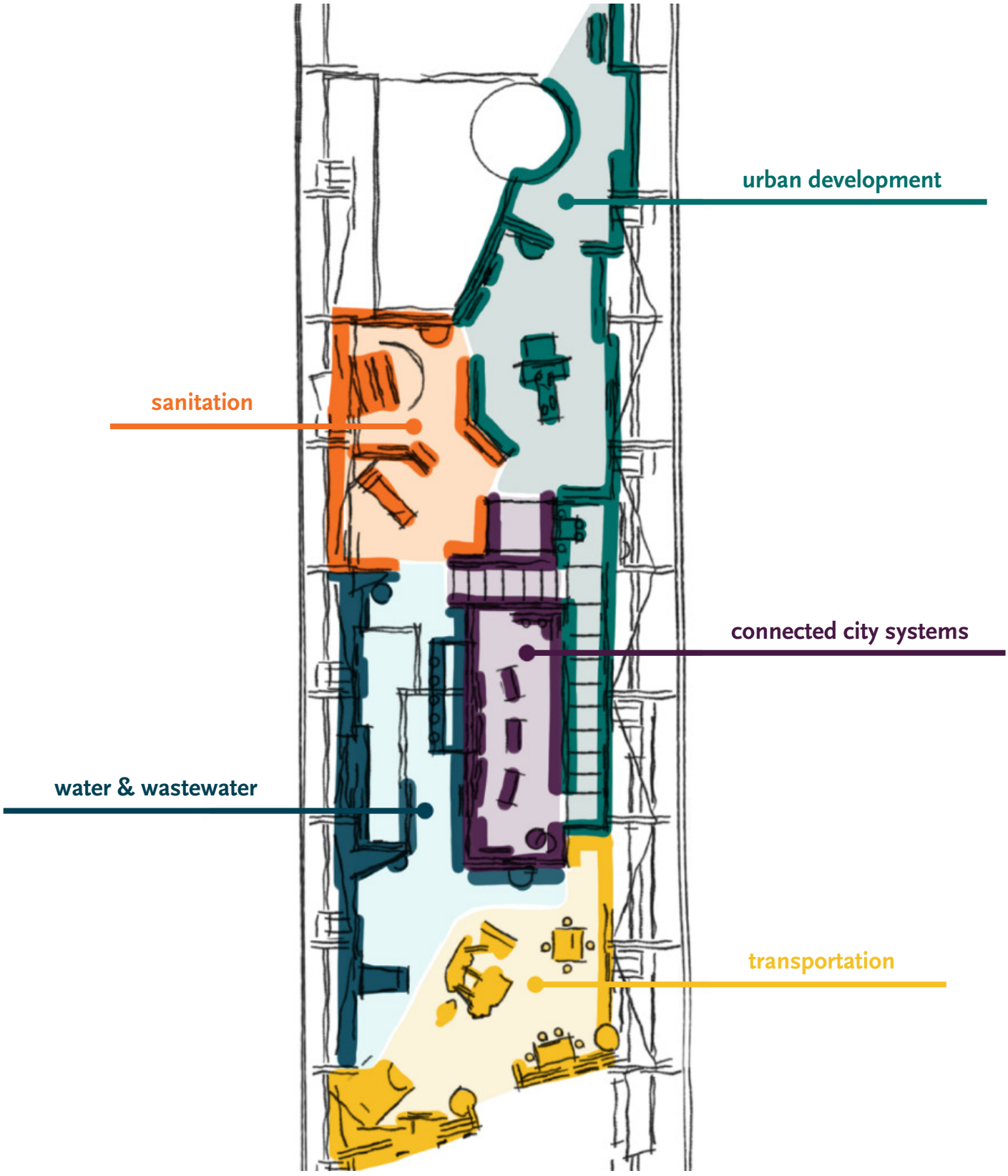
nysci CityWorks Exhibit Worksheet Grade 9–12

NAME _____



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NAME _____

Listen to: Bus Worker Story — Veronica Torres, Surface Line Dispatcher, Metropolitan Transportation Authority (MTA)

Surface line dispatchers coordinate and monitor daily bus service to keep routes running smoothly. They check operators in for their shifts, ensure buses stay on schedule, and address issues that come up on the road.

Use the table below to jot down notes under each question as you listen.

What was something surprising or unexpected about this job?	*What skills or knowledge does this worker need to do their job well?*	*What is one question you would want to ask this worker if you could talk to them?*

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Transportation

Visit the POV Drive the Bus exhibit in the Transportation area. Sit in the bus and experience different bus routes in the city from a bus driver's perspective. Observe how the bus interacts with pedestrians, cyclists, delivery trucks, and cars. What challenges did you notice while driving the bus and what factors make it hard for a bus to stay on schedule? (Example categories: people, vehicles, city design, technology, etc.)

Observe how the bus interacts with pedestrians, cyclists, delivery trucks, and cars. What challenges did you notice while driving the bus and what factors make it hard for a bus to stay on schedule? (Example categories: people, vehicles, city design, technology, etc.)

Pick one challenge from your list. Sketch or write a solution to make bus travel safer or faster. Explain who benefits, what trade-offs might happen, and what careers could help make this solution real.

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Listen to: Water Worker Story — Sudeep Deb, Process Control Engineer, Newtown Creek Water Resource Recovery Facility

Process control engineers oversee key stages of wastewater treatment, including the disinfection process. They monitor equipment and chemical dosing to ensure treated water meets safety standards before it is released into local waterways.

Use the table below to jot down notes under each question as you listen.

What was something surprising or unexpected about this job?	*What skills or knowledge does this worker need to do their job well?*	*What is one question you would want to ask this worker if you could talk to them?*

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Water and Wastewater

Visit the Wastewater Treatment Process Overview in the Water and Wastewater area. Move through the different hands-on stations that model how wastewater is treated: screening, settling, aeration, and resource recovery.

Complete the table below as you move through each stage of the wastewater treatment process.

Stage of Treatment	What Happens?	What Is Removed or Recovered?	Why Does This Step Matter?
Screening			
Settling			
Aeration			

Byproducts like methane gas, biosolids, and clean water can be reused after treatment. Pick one byproduct and explain how it could be used to make NYC more sustainable.

_____

_____

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Listen to: Sanitation Worker Story — Alicia Shorter, Equipment Operator, New York City Department of Sanitation (DSNY)

Sanitation equipment operators use specialized vehicles and machinery to support the city's waste and street-cleaning systems. Their work can involve moving and processing waste, supporting snow removal operations, and helping maintain a clean urban environment.

Use the table below to jot down notes under each question as you listen.

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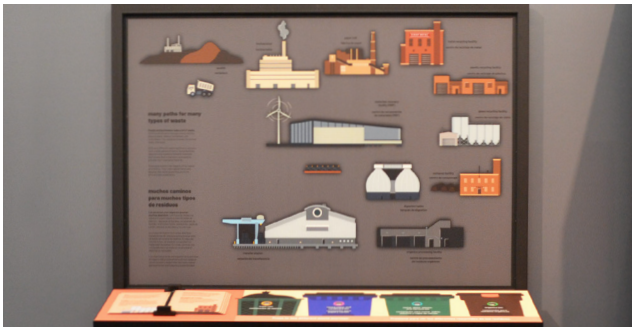


Sanitation

Visit the Wastestream Journey Map exhibit in the Sanitation area. Watch how trash, organics, and recyclables travel through NYC's waste system.

Where does the waste go?

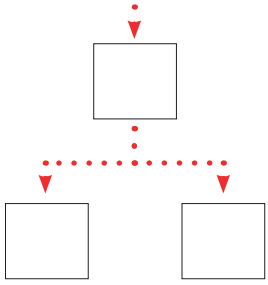
Fill in each waste journey pathway blank with the letter that matches the correct facility from the list below.

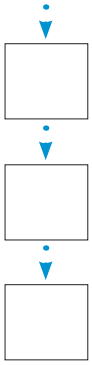
Trash

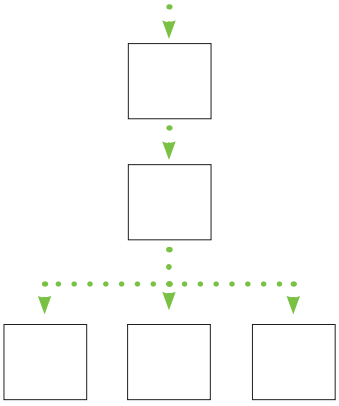
Mixed paper & cardboard

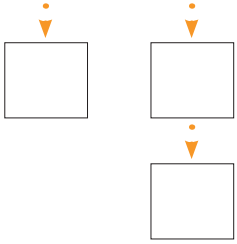
Metal, glass, plastic & cartons

Organics









A. Transfer Station

B. Landfill

C. Incinerator

D. Materials Recovery Facility

E. Paper Mill

F. Organics Processing

G. Digestion Tanks

H. Compost Facility

I. Glass Recycling Facility

J. Plastic Recycling Facility

K. Metal Recycling Facility

How does this complexity connect to what you heard in the worker story?

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Listen to: Park Worker Story — Eric Gibson, Climber and Pruner, New York City Department of Parks and Recreation

Climbers and pruners maintain the health and safety of the city's trees. They assess conditions, prune branches, and remove trees when necessary, using a variety of tools and equipment.

Use the table below to jot down notes under each question as you listen.

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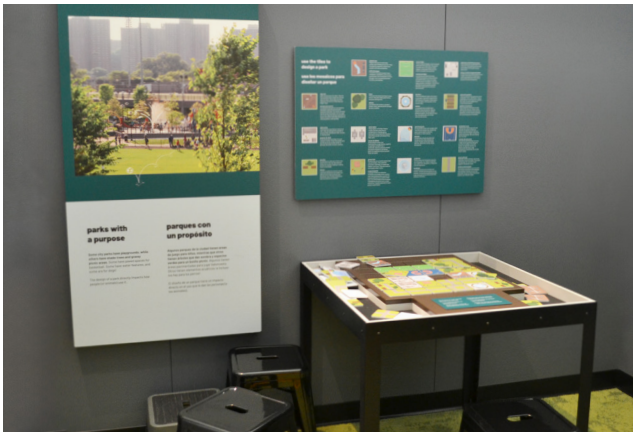

Urban Development

Visit the Build a Park exhibit in the Urban Development exhibit area. Design a park by choosing and placing square tiles representing different park features. As you build, think about how each choice affects the people, wildlife, and neighborhood around it.

What tradeoffs did you face while designing your park (for example, balancing space for recreation vs. green space for trees and wildlife)?

What safety or maintenance challenges do you think park workers like Eric have to consider after a park is built?

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My reflections. After exploring the rest of the exhibits in CityWorks:

What is one part of the CityWorks exhibit that reminded you of something in your own neighborhood (do you have a bodega cat too)?

What did you learn about how your city works that was surprising?

If you could improve a system or add a new system in your community, what would it be?