



SimCity Edu: 4 Class Periods

Note: This content is simply re-iterating the SIMS online challenge. We love the activity and think that you will, too! This activity, however, requires an account (which is free only for the initial 30-60 days)

Objectives: Students will assess how to logically plan and design a city/town. Student will create city/town plans conveying change over time and shift in land-use priority. Students will shift city/town development plans under specific, real world, climatic and/or human induced calamity scenarios.

This is the first of four parts for this activity. Pick someone to lead this mission and follow the instructions.

The kids who live far away need to get to school. Find out how to build bus stops efficiently and enroll all kids in school. You have 10 minutes. Let's see how good of a planner your students are!

Materials

- Simcity Edu Account at:
<https://www.glasslabgames.org/games/SC>
- Paper and Pen
- Computer
- Downloaded Simcity Game
- Partners



SimCity Edu: Mission 1 – School Is In

Learning Objectives

- Students will be able to: Successfully access and operate the game’s basic tools, maps and other data sources as well as its navigational controls.
- Understand basic causal relationships within the game that will enable them to solve more complex gameplay missions.
- Find optimal solutions in a spatial-solving task by placing non-overlapping landmarks on a map.



Choose a leader for this mission.

Sign in to your account.

Load the game by clicking “Play Game.”

Select Mission 1 “School Is In.”

Preview “Navigation.”

Press “Go!”

As soon as you enter, press pause in the bottom left of the screen. Play around with the tools to ensure you understand the setup of the city and how to place bus stops.

From there, place bus stops as efficiently as possible to enroll all the kids in school.

Questions for Thought:

Try placing the bus stops at multiple locations

Do different locations run more efficiently?

What should you consider when placing a bus stop?

Why?

Discuss

What are some basic requirements to enroll all the students? Have students try out different ways of setting up the bus stops (further apart, more stops, less stops). How do each of these things affect cost and enrollment?

Advanced: How would school districts and different funding for schools affect the bus stops available in certain areas? What agency is in charge of busing students to school? What about funding the schools themselves?

Source: *SIMCITY EDU Pollution Challenge*, https://s3-us-west-1.amazonaws.com/playfully-games/SC/brochures/SIMCITYbrochure_v3small.pdf



SimCity Edu: Mission 2 – We Need Jobs

This is the second of four parts for this activity. Choose a different person to lead this activity. Welcome to Little Alexandria! This city needs jobs...Now! Use the zoning tool to create new jobs along empty roads. How quickly can you solve this problem? You have 10 minutes. The clock is ticking!

Materials

- Simcity Edu Account
- Paper and Pen
- Computer
- Downloaded Simcity Game
- Partners

Learning Objectives

- Successfully operate advanced game tools and maps in order to increase the number of jobs available.
 - Consider efficient solutions.
- Understand differences between three distinct functional living areas and their relationships to employment.
- Understand basic causal relationships within the game that will enable them to solve more complex missions.



Choose a different leader for this mission.

Sign in to your account.

Load the game.

Select Mission 2: We Need Jobs.

From there zone areas next to roads to increase jobs..

Try multiple location for zoning

Do different locations run more efficiently?

Does anything inhibit growth?

What are some things you should consider when placing zones?

Why?



Discuss

What are some basic requirements to ensure there are job opportunities? Have students try out different zoning opportunities? How does road location affect traffic and the like? **Advanced:** How does a city's location affect job types? What about the population's education levels?

Source: *SIMCITY EDU Pollution Challenge*, https://s3-us-west-1.amazonaws.com/playfully-games/SC/brochures/SIMCITYbrochure_v3small.pdf

SimCity Edu: Mission 3 – Pollution Problems

This is the third of four parts for this activity. Choose a different leader for this mission. This city has a problem with high air pollution. Find out how to lower pollution and keep the power level optimal. You have 10 minutes. Can you avoid power blackouts?

Materials

- Simcity Edu Account
- Paper and Pen
- Computer
- Downloaded Simcity Game
- Partners

Learning Objectives

- Describe some of the trade-offs involved in eliminating sources of air pollution.
- Recognize that there are trade-offs between the use of green power sources and coal power.
- Consider and intervene on multiple variables in order to change a complex system.
- Describe the importance of and some of the tensions involved in reducing human impact on the environment.





Switch leaders for this mission.
Sign in to your account.
Load the game.
Select Mission 3: Pollution Problems.
From there zone as attempt to reduce pollution
while still supplying appropriate power
demand.

Try multiple power generators.
Do different generations sources affect
population?
Do they affect pollution?
Why?

Discuss

What are some basic requirements to lower pollutions? To meet energy demand? Have students try out different power generation strategies? How does this affect the city?

Advanced: Why is it important to try to lower pollution? Climate Change? Health? Why are fossil fuels cheaper than lower polluting sources? Is that changing?

Source: *SIMCITY EDU Pollution Challenge*, https://s3-us-west-1.amazonaws.com/playfully-games/SC/brochures/SIMCITYbrochure_v3small.pdf



SimCity Edu: Mission 4 – It’s Complicated

This is the final part of this activity. Pick someone new to lead this mission and follow the instructions.

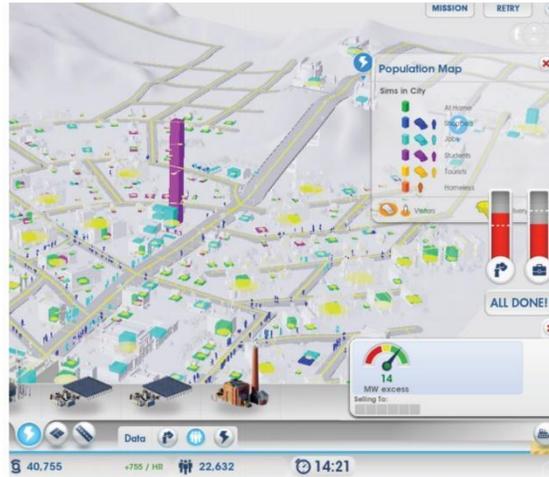
We heard that you are an expert in big cities. This city needs your skills to lower pollution and increase jobs. You have 15 minutes. Ready for your hardest mission?

Materials

- Simcity Edu Account
- Paper and Pen
- Computer
- Downloaded Simcity Game
- Partners

Learning Objectives

- Consider multiple variables when trying to intervene on complex systems.
- Explain how technology and planning can support effective solutions to reduce human impact on the environment.



Switch leaders for this mission.

Sign in to your account.

Load the game.

Select Mission 4: It’s Complicated.

From there attempt to reduce pollution while still supplying appropriate power demand and employment.

Try multiple power generators.

Try different zoning strategies.

Do different generation sources affect population/pollution/employment?

Does the zoning area affect population/pollution/employment?

Why?

Discuss

What are some basic requirements to lower pollution? Meet energy demand? Keep full employment? Have students try out different power generation strategies? Different zoning strategies? How does this affect the city?



Advanced: How does meeting or not meeting energy demand affect businesses? How does zoning affect the city? What other things affect the city? How does this relate to where you live?

Source: *SIMCITY EDU Pollution Challenge*, https://s3-us-west-1.amazonaws.com/playfully-games/SC/brochures/SIMCITYbrochure_v3small.pdf



Texas Assessments of Academic Readiness Resources - TEKS

§113.18. Social Studies, Grade 6, Beginning with School Year 2011-2012.

(b) Knowledge and skills.

(21) Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology. The student is expected to:

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

§113.19. Social Studies, Grade 7, Beginning with School Year 2011-2012.

(b) Knowledge and skills.

(21) Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology. The student is expected to:

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

§113.20. Social Studies, Grade 8, Beginning with School Year 2011-2012.

(b) Knowledge and skills.

(31) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

(B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

§118.4. Economics with Emphasis on the Free Enterprise System and Its Benefits, High School (One-Half Credit), Beginning with School Year 2011-2012.

(c) Knowledge and skills.

(1) Economics. The student understands the concepts of scarcity and opportunity costs. The student is expected to:

(A) explain why scarcity and choice are basic economic problems faced by every society;

§111.26. Grade 6, Adopted 2012.

(b) Knowledge and skills.

(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;

§111.27. Grade 7, Adopted 2012.

(b) Knowledge and skills.



(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;

§111.28. Grade 8, Adopted 2012.

(b) Knowledge and skills.

(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;

§112.37. Environmental Systems, Beginning with School Year 2010-2011 (One Credit).

(c) Knowledge and skills.

(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:

(E) analyze and evaluate the economic significance and interdependence of resources within the environmental system;

(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:

(C) analyze and predict the effects of non-renewable resource depletion; and

(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:

(E) evaluate the effect of human activities, including habitat restoration projects, species preservation efforts, nature conservancy groups, hunting, fishing, ecotourism, all terrain vehicles, and small personal watercraft, on the environment;