

2009–2010 National Engineers Week Future City® Competition

Computer City Design Self-Evaluation Sheet

(0–16 points)

Students must use *SimCity 4 Deluxe* software to create their future city.

The Computer City Design and completed Computer Evaluation Sheet must be submitted to your regional coordinator.

Use instructions on the reverse of this sheet to help you evaluate your future city.

Future City Name			
City Size	Small	Medium	Large
Teacher Name			
Engineer-Mentor Name and Employer:			
Engineer-Mentor Address			
Engineer-Mentor E-mail			
Engineer-Mentor Professional Society Affiliation:			
School Name			
School Address			
School Phone Number		School Fax Number	
Teacher E-mail Address			

Verified for Accuracy (Signed by teacher or engineer-mentor)

Date

Computer Evaluation of Your Future City			
Each "yes" is worth 2 points -- Maximum number is 16 points			
	Enter Values	Yes	No
1. Has your city progressed at least 150 years (year 150) into the future? Above?			
2. Does your city have a population of at least 50,000?			
3. Is your city clear of any loans?	N/A		
4. Are your residential, industrial, and commercial tax rates all Under 8%? List your max tax rate for each.	R =		
	I =		
	C =		
5. Does your city have a balanced budget? Your budget is balanced if your income is greater than your expenses.	Income		
	Expenses		
6. Are the Sims happy with your performance as Mayor of your City? (Four or more City Opinion Polls are Green).	N/A		
7. Are there no complaints from your Sims about traffic problems?	N/A		
8. Do you have at least 2 connections to neighboring cities in your region?			
	Total Point (0–16)		

Add number of check marks in the Yes column and multiply by 2

Computer Evaluation Sheet Total Points (0–16)

Insert numbers in "Enter Values" column.

Computer Evaluation Sheet Instructions

Instructions on how to locate the information for each of the 10 questions listed on the Computer Evaluation Sheet. Remember to list your “values” on the front of the Computer Evaluation Sheet (where applicable). For example:

- What is the year of your city? Enter value such as 150.
- What is the size of the population of your city? Enter value such as 55,000.

- Question 1:* To find out what year your city is, look on the bottom horizontal tool bar. If your city is 150 or later, mark yes in the column. Write the year in the values column.
- Question 2:* To find out the total population of your city, look on the bottom horizontal tool bar in the “Mayor Mode”. If your total population is 50,000 or above, mark yes in the column. Write the population in the values column.
- Question 3:* In “Mayor Mode” Click “Budget Panel” tool and select “Monthly Income”. Click “Take Out A Loan” to view any existing loans. If there are no loans mark yes in the column.
- Question 4:* In “Mayor Mode” click “Budget Panel” tool and select “Monthly Income”. Click “Taxes” to view residential, commercial, and industrial tax rates. If the residential, commercial and industrial tax rates are 8% or lower, mark yes in the column. Write the max tax rates for each in the values column.
- Question 5:* Click “Graphs” and select “Life Expectancy” and read the corresponding number. If you see a Health number 62 or higher, mark yes in the column. Write the number in the values column.
- Question 6:* Click “Graphs” and select “Education” and read the corresponding number. If you see an Education number 100 or higher, mark yes in the column. Write the number in the values column.
- Question 7:* Click “Mayor Mode to view “City Opinion Polls” on the horizontal toolbar to view results. If at least 4 polls are “Green” then your Sims are happy with the Mayor’s performance. Mark yes in the column.
- Question 8:* Click on the transportation advisor and see if he is reporting “no traffic problems”. If there are “no traffic problems”, mark yes in the column.
- Question 9:* Click Data Views, then select “Air Pollution”. If city is 75% “Yellow or Clear” then pollution is under control. Mark yes in the column.
- Question 10:* View City for roads, highways and railways to see if there are at least 2 connections to neighboring cities. If there are at least 2 connections mark yes in the column.

Computer City Design (Map Inventory List)

OPTIONAL - You may, but are **NOT** required to submit this form with your Computer Score Sheet and SimCity4 design.

This inventory list is based upon the SimCity Design Rubric Score Guide.
We don't want to miss anything you've done.

However, your Future City SimCity4 design does not have to have all of these features to be effective.

Instructions to identify a feature's location:

Look at the navigation map and find North. Visually divide your City into quadrants: Northeast, Southwest, Circle the correct quadrant(s) where the features are located so we can find them and give you deserved credit.

City Layout Criteria

Property Values

What is the majority (>50%), and where is the majority located

Red	NW	NE	SW	SE
Dark Red	NW	NE	SW	SE
Dark Green	NW	NE	SW	SE
Green	NW	NE	SW	SE
Light Green	NW	NE	SW	SE

Police Coverage

area that may be deficient

< 50%	50% to 95%	96% to 99%	100%
NW	NE	SW	SE

Fire Coverage

area that may be deficient

< 50%	50% to 95%	96% to 99%	100%
NW	NE	SW	SE

Factory Type

Which ones are in the city, and where are they located?

Bella Barium	NW	NE	SW	SE	N/A
Broquard's Cement Plant	NW	NE	SW	SE	N/A
C. Wallace Plaster	NW	NE	SW	SE	N/A
Creighton Bricks	NW	NE	SW	SE	N/A
DAO Chemicals	NW	NE	SW	SE	N/A
Eyler Refining	NW	NE	SW	SE	N/A
Farley's Foundry	NW	NE	SW	SE	N/A
Flytes Motor Works	NW	NE	SW	SE	N/A
Graber Smelting	NW	NE	SW	SE	N/A
Grundstrom Copper	NW	NE	SW	SE	N/A
MPR Metals	NW	NE	SW	SE	N/A
Packaging Facility	NW	NE	SW	SE	N/A
Running Blade Manufacturing	NW	NE	SW	SE	N/A
Vilette Textiles	NW	NE	SW	SE	N/A
Willmott Widget Assembly	NW	NE	SW	SE	N/A

Computer City Design (Map Inventory List)

City Layout Criteria (cont.)

High Tech Industry

Which ones are in the city, and where are they located?

Andrew's Semiconductor	NW	NE	SW	SE	N/A
Havoc Bioenhancements	NW	NE	SW	SE	N/A
Jenquai Alchemy	NW	NE	SW	SE	N/A
Kane Tiberium	NW	NE	SW	SE	N/A
Lee Avionics	NW	NE	SW	SE	N/A
Max's Microchips	NW	NE	SW	SE	N/A
Quantum Dish	NW	NE	SW	SE	N/A
Stratton Biotech	NW	NE	SW	SE	N/A
Tsvirkunov Electronics	NW	NE	SW	SE	N/A
Venkatrama Pharmaceuticals	NW	NE	SW	SE	N/A

Agriculture

Where are the farms located?

Farm (1)	NW	NE	SW	SE	N/A
Farm (2)	NW	NE	SW	SE	N/A
Farm (3)	NW	NE	SW	SE	N/A
Farm (4)	NW	NE	SW	SE	N/A
Farm (5)	NW	NE	SW	SE	N/A

Types of Garbage Disposal

Which ones are in the city, and where are they located?

Land Fill	NW	NE	SW	SE	N/A
Incinerator	NW	NE	SW	SE	N/A
Recycling Center	NW	NE	SW	SE	N/A
Neighboring City Deal	YES		NO		

Recycling Centers

Where are they located?

Recycle Center (1)	NW	NE	SW	SE	N/A
Recycle Center (2)	NW	NE	SW	SE	N/A
Recycle Center (3)	NW	NE	SW	SE	N/A
Recycle Center (4)	NW	NE	SW	SE	N/A
Recycle Center (5)	NW	NE	SW	SE	N/A

Social Services

Life Expectancy

Below 40	40 to 49	50 to 69	Above 70
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Education Level

Below 80	80 to 119	120 to 159	Above 160
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Computer City Design (Map Inventory List)

Energy and Pollution Criteria

Power provided to areas of the City

< 50%	50% to 95%	96% to 99%	100%
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Water provided to areas of the City

< 50%	50% to 95%	96% to 99%	100%
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Water Pollution

What is the majority (>50%), and where is the majority located

Red	NW	NE	SW	SE
Dark Red	NW	NE	SW	SE
Dark Green	NW	NE	SW	SE
Green	NW	NE	SW	SE
Light Green	NW	NE	SW	SE

Air Pollution

What is the majority (>50%), and where is the majority located

Red	NW	NE	SW	SE
Dark Red	NW	NE	SW	SE
Dark Green	NW	NE	SW	SE
Green	NW	NE	SW	SE
Light Green	NW	NE	SW	SE

Transportation Criteria

Public Transportation - usage

Passenger Train	NW	NE	SW	SE	N/A
Subway	NW	NE	SW	SE	N/A
Monorail	NW	NE	SW	SE	N/A
Bus	NW	NE	SW	SE	N/A
Ferry	NW	NE	SW	SE	N/A

Public Transportation - coverage

Passenger Train	<50%	>50%	N/A
Bus	<50%	>50%	N/A
Subway	<50%	>50%	N/A

Commute Time

>= 60 min	< 60 min	< 50 min	< 40 min	< 30 min
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Freight Truck - usage

What is the majority (>50%), and where is the majority located

White	NW	NE	SW	SE	N/A
Gray	NW	NE	SW	SE	N/A
Blue	NW	NE	SW	SE	N/A

Computer City Design (Map Inventory List)

Transportation Criteria (cont.)

Freight Train - usage

What is the majority (>50%), and where is the majority located

White	NW	NE	SW	SE
Gray	NW	NE	SW	SE
Blue	NW	NE	SW	SE

Airport

None	Landing Strip	Municipal	International
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Location

NW	NE	SW	SE	N/A
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Seaport

NW	NE	SW	SE	N/A
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Recreation Criteria

Recreation Areas

Which ones are in the city, and where are they located?

Basketball Court	NW	NE	SW	SE	N/A
Beach	NW	NE	SW	SE	N/A
Community Garden	NW	NE	SW	SE	N/A
Gazebo	NW	NE	SW	SE	N/A
Large Flower Garden	NW	NE	SW	SE	N/A
Large Green Park	NW	NE	SW	SE	N/A
Large Plaza	NW	NE	SW	SE	N/A
Medium Flower Garden	NW	NE	SW	SE	N/A
Medium Green Park	NW	NE	SW	SE	N/A
Medium Playground	NW	NE	SW	SE	N/A
Medium Plaza	NW	NE	SW	SE	N/A
Open Grass Area	NW	NE	SW	SE	N/A
Open Paved Area	NW	NE	SW	SE	N/A
Playground	NW	NE	SW	SE	N/A
Ranger Station	NW	NE	SW	SE	N/A
Skateboard Park	NW	NE	SW	SE	N/A
Small Flower Garden	NW	NE	SW	SE	N/A
Small Green Park	NW	NE	SW	SE	N/A
Small Plaza	NW	NE	SW	SE	N/A
Soccer Field	NW	NE	SW	SE	N/A
Softball Field	NW	NE	SW	SE	N/A
Tennis Court	NW	NE	SW	SE	N/A

Computer City Design (Map Inventory List)

Recreation Criteria (cont.)

Rewards

Which ones are in the city, and where are they located?

Advanced Research Center	NW	NE	SW	SE	N/A
City Hall	NW	NE	SW	SE	N/A
City Zoo	NW	NE	SW	SE	N/A
Convention Center	NW	NE	SW	SE	N/A
Country Club	NW	NE	SW	SE	N/A
Country Fair	NW	NE	SW	SE	N/A
Courthouse	NW	NE	SW	SE	N/A
Cruise Ship Port	NW	NE	SW	SE	N/A
Disease Research Center	NW	NE	SW	SE	N/A
Farmer's Market	NW	NE	SW	SE	N/A
House of Worship	NW	NE	SW	SE	N/A
Lighthouse	NW	NE	SW	SE	N/A
Main Library	NW	NE	SW	SE	N/A
Major Art Museum	NW	NE	SW	SE	N/A
Major League Stadium	NW	NE	SW	SE	N/A
Marina	NW	NE	SW	SE	N/A
Mayor's House	NW	NE	SW	SE	N/A
Minor League Stadium	NW	NE	SW	SE	N/A
Movie Studio	NW	NE	SW	SE	N/A
Opera House	NW	NE	SW	SE	N/A
Radio Station	NW	NE	SW	SE	N/A
Resort Hotel	NW	NE	SW	SE	N/A
Space Port	NW	NE	SW	SE	N/A
Stock Exchange	NW	NE	SW	SE	N/A
Television Station	NW	NE	SW	SE	N/A
The Bureau of Democracy	NW	NE	SW	SE	N/A
University	NW	NE	SW	SE	N/A