

The Real Game of Life

sustainability
science for
sustainable
schools
NSF-Funded GK-12 Project



How do you choose?



Why?

Decision Making Game!



- 1) Tradeoffs
- 2) Unintended Consequences
- 3) Payback period
- 4) Risk or Uncertainty
- 5) Time period

Rules

- There will be **4 rounds**, and some surprises.
- At the beginning of every round you will be paid your salary of time and money. Any **money** you saved from the last round can be added to your new income.
- Each round you **MUST** choose:
 - A light source
 - Food
 - Transportation
- You will read a description of each of the choices you can make.
- You cannot spend more money or time than you have.

What is your income?

- Fill in ***Income*** profile according to **Birth Month**
 - January - June: 5 Bits
 - July- November: 10 Bits
 - December: 15 Bits
- Fill out ***time available*** according to **Birthdate**
 - ***1st-15th*** : 4 hours
 - ***16th-31st*** : 6 hours
- How much time and money do you have?
- Mark these in the spaces on your worksheet.

Getting Started

Update your Income and Time Available on the top of the sheet.

Fill in your Time and Money for the beginning of Round 1.

The Real Game of Life Student Worksheet

Name: _____

Income: _____ Time Available: _____

Round	Lightbulb Choice	Food Choice	Transportation Choice	points	points	points
1						
2						
3						
4						
Totals	-----	-----	-----			

	Beginning of round	Lightbulb Cost	Food Cost	Transportation Cost	Savings
1. Money					
1. Time					-----
2. Money					
2. Time					-----
3. Money					
3. Time					-----
4. Money					
4. Time					-----

Making a choice: Light bulbs

- Read the Decision Sheet for light bulbs.
- Find in the paragraphs the relevant information about how much each choice will cost **IN THE GAME** and fill it out in the spaces below.
- Notice that each choice has a
 - Money cost
 - Time cost
 - Duration: (How long the bulb lasts in the game)
 - Eco-points : the fewer eco points you get the better 😊
- Find where you will write each of your choices on the worksheet

Recap:

Incandescent

- Cost 1.5
- Time 1
- Duration 1
- Eco Pts 3

CFL

- Cost 2.5
- Time 1
- Duration 2
- Eco Pts 2

LED

- Cost 4
- Time 1
- Duration 4
- Eco Pts 1

Make Your Decision!

Fill out your answers on your sheet

The Real Game of Life Student Worksheet

Name: _____

Income: _____ Available: _____

Round	Lightbulb Choice	Eco points	Food choice	Eco points	Transportation Choice	Eco points
1						
2						
3						
4						
Totals	-----		-----		-----	

	Beginning of round	Lightbulb Cost	Food Cost	Transportation Cost	Savings
1. Money					
1. Time					-----
2. Money					
2. Time					-----
3. Money					
3. Time					-----
4. Money					
4. Time					-----

Making a Choice: Food

- Read the Decision Sheet for food and fill in the blanks.
- Notice that each choice has a
 - Money cost
 - Time cost
 - Eco-points : the fewer eco points you get the better 😊
- Find where you will write each of your choices on the worksheet

Recap:

Fast Food

- Cost 1
- Time 1
- Eco Points 3

Grocery Store

- Cost 3
- Time 2
- Eco Points 2

Farmers Market

- Cost 6
- Time 3
- Eco Points 1

Make Your Decision!

Fill out your answers on your sheet

The Real Game of Life Student Worksheet  sustainability science for sustainable schools

Name: _____

Income: _____ Time Available: _____

Round	Lightbulb Choice	Eco points	Food Choice	Eco points	Transportation Choice	Eco points
1						
2						
3						
4						
Totals	-----		-----		-----	

	Beginning of round	Lightbulb Cost	Food Cost	Transportation Cost	Savings
1. Money					
1. Time					-----
2. Money					
2. Time					-----
3. Money					
3. Time					-----
4. Money					
4. Time					-----

Making a Choice: Transportation

- Read the Decision Sheet for transportation. Fill in the blanks.
- Notice that each choice has a
 - Money cost
 - Time cost
 - Eco-points : the fewer eco points you get the better 😊
- Find where you will write each of your choices on the worksheet

Recap:

Walk / Bike

- Cost 0
- Time 3
- Eco Points 1

Public Transit

- Cost 2
- Time 2
- Eco Points 2

Personal Vehicle

- Cost 5
- Time 1
- Eco Points 3

Make Your Decision!

Fill out your answers on your sheet

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Name: _____

Income: _____ Time Available: _____

Round	Lightbulb Choice	Eco points	Food Choice	Eco points	Transportation Choice	Eco points
1						
2						
3						
4						
Totals	-----		-----		-----	

	Beginning of round	Lightbulb Cost	Food Cost	Transportation Cost	Savings
1. Money					
1. Time					-----
2. Money					
2. Time					-----
3. Money					
3. Time					-----
4. Money					
4. Time					-----

Make your choices!

- Make sure you didn't exceed your income of time and money!
 - If you DID, or if you can't make a choice because you don't have enough time or money:
 - Go back and change your light, or food choice so that you can afford a transportation option (time and money)
- Money savings can be added to next round's income, but time cannot.
- **Discussion Questions:**
- How does your income affect what you can choose?
- What tradeoffs did you make?

Reality Card!

**Fuel prices
increase due to
local shortage
during hurricane!**

In the next round ONLY:
driving will take:

2 hours & 6 Bits.



Round 2

Repeat the Steps from Round 1:

REMEMBER:

MONEY: Add savings from Round 1 to salary

TIME: Can't save it, so time will be the same as in Round 1

Lighting: If you bought a CFL or LED, you don't have to spend time or money on it this round - DO add Eco Points for this round.

Transportation: The car costs 2 hours and 6 Bits.

Round 2

Discussion Questions:

- How did uncertainty affect your decisions so far in the game?
- Do you think uncertainty plays a major role in any decisions you make in your life?

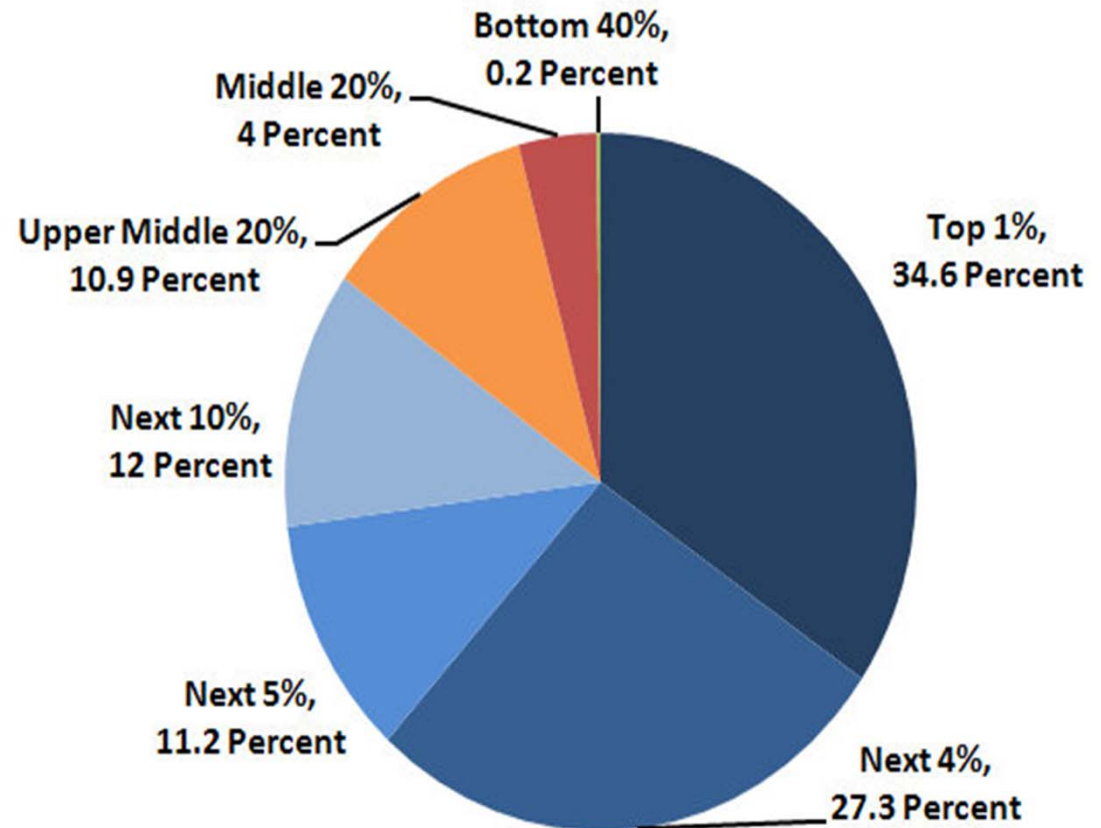


Reality Card!

You may be eligible for a food assistance program (SNAP), but it will cost you 2 hrs.

If you are low income (5 Bits) and have 2 hours to fill out the paperwork, you can get 2 additional Bits each turn for the rest of the game.

U.S. Distribution of Wealth, 2007



Edward N. Wolff, 2010

Round 3

- Choose again: Lights, Food, Transportation

Remember:

- If you bought CFL's the first round, they need to be replaced. If you bought them last round, only add the Eco Points this round.
- If you applied for SNAP, you have an extra 2 Bits, but it costs 2 hours. You can apply next round if you qualify, but didn't have time this round.
- Personal Vehicle costs are back to normal (5 Bits, 1 Hr).

Round 3

Discussion Questions:

- **Payback Period:** *the length of time required for an investment to recover its initial cost*
- How has taking advantage of the payback period on the lightbulbs affected players in this game?
- What other purchases might have a payback period?



Reality Card!

Heart Attack!

Lose \$3 and 1 hour next round if you chose fast food 2 or more times,

UNLESS you've walked/biked 2 or more times.



Round 4

- Choose again: Lights, Food, Transportation

Remember! :

- If you bought CFL's the 2nd round, they need to be replaced. If you bought them last round, only add the Eco Points this round
- If you applied for SNAP you have an extra 2 Bits
 - You can STILL Apply! (costs 2 hours)
- If you had a heart attack, subtract 3 bits and 1 hour from your starting amount.

Round 4

Discussion Questions:

- **Unintended Consequence:** *outcomes that are not the intended outcomes. May be positive or negative*



An example of an unintended consequence occurred when the Australian state of Victoria made safety helmets mandatory for all bicycle riders. There was also an unintended reduction in the number of juvenile cyclists.

- Why do you think this would be?

Round 4

Discussion Questions:

- Knowing the unintended consequences of eating fast food in this game, would you have made different decisions? Did you have the time and/or money to make different decisions?
- What was the positive unintended consequence this round?



Calculate Your Score

- Calculate your TOTAL Eco Score.
- Do you have any savings?
- How did the class do?
 - Who had highest or lowest Eco Scores?
 - How did they do it?
 - What was their income/time?

Eco Score

- **Ecological Footprint** – the amount of land it takes to provide the resources you use, and clean up the pollution you create.
- Score of 12 – 19 = Eco-Friendly
20 – 27 = Eco-Aware
28 – 36 = Eco-Disaster!

Reality Card!

Asthma!

Count up the class' environmental points.

If more than half the class has 28 or more, then air quality has deteriorated and caused you ALL develop asthma.

EVERYONE loses 5 Bits to pay the doctor. If you don't have the money, you die!



Class Discussion Questions

- Were you satisfied with your choices? Why or why not?
- Would you say you had an acceptable standard of living? Why or why not?
- Were your choices good for your health? For the environment? Why does it matter?
- Is it possible to make the best choices for all categories under many constraints?
- Are you satisfied with the tradeoffs you made?

- Individually fill in the reflection questions #1-4 on the worksheet.

Changing the Game

- What rules would you make to allow people to make better decisions if you could make a new rule?
- On your worksheet, make up a Reality Card that reflects one of the following concepts: Tradeoffs, unintended consequences, environmental effects, payback period, or uncertainty.