# THE WIDGET BOOM GAME
## Lesson Plan

**Materials Needed**
- "Widget Boom Game Scoring Guide"
- Copies of the "Widget Boom Game Role Sheet" for every student
- Five "Widget Production" slips per group (seven groups)
- Several candy bars

**Lesson Objectives**
- Students will better understand what caused the Great Depression—and other economic crises under capitalism
- Students will use their experiences during the simulation to predict possible solutions for economic crises

**Lesson Activities**

**Procedure:**
1. Before the beginning of the game, put the "Widget Boom Game Scoring Guide" on the overhead.
2. Distribute copies of the "The Widget Boom Game Role Sheet" to students. Read it aloud. You'll notice that, for simplicity's sake, the "companies" don't have to worry about developing markets for their goods. In this game, whatever the companies produce will be sold. Thus, with each round, each company increases its capital and can produce even more thingamabobs if the student "managers" of that company so choose.

   The math is simple: Each company begins the game with $2,000 and no machines. The amount of widgets they can produce in one round is determined by the number of machines they own and the amount of money they have. At the start of the game, each widget costs $2 to produce. They will make $4 from every widget they make. So, for example, if a group produces at full capacity in round one they will spend all $2,000, produce 1,000 widgets, and get back $4,000 in profit.

   If they accumulate enough profit, they can spend some of it to buy a machine, which allows them to increase their business's productive capacity. (See "Widget Production" for machine pricing.) Building on the first example, if they put $2,000 of their profit from round 1 into buying a machine in round 2, they will be left with the same amount of money they started with in round 1—$2,000. But with this new machine, widgets cost only $1 to produce. This means if they produce at full capacity again they will make $8,000 instead of $4,000. Make sure to emphasize that their factory can only house one machine at a time, but each round they can buy the newest machine they can afford. Note that the role sheet promises candy for all the winners. It's important that you have desirable candy awards ready, and that you show these to students to motivate them to try to win. However, every class I have ever done this with has produced so many widgets that it triggered an economic crisis, so students aren't likely to earn the reward you select.

3. The concluding paragraph of the "Widget Boom Game Role Sheet" warns students: At the end of round 5, if the *total* number of widgets produced (i.e., by all seven groups in all five rounds) goes above the market limit, it triggers a "crisis of overproduction" and nobody wins.

    Set the figure between 2,000,000 and 3,000,000 widgets. Write this "trigger number" on a piece of paper, fold it over, and tape it to the front board. Emphasize to your students the tension in the game—as in real life: *They will be rewarded for how much profit they produce for their company, but the more widgets they produce, the closer they bring the widget market into a crisis of overproduction.*

4. Divide the class into seven groups. Tell each group to come up with a widget company name.

5. Distribute five "Widget Production" slips to each group. Ask them to make their first production decisions. They should discuss these within their small group, complete the information on the slip, and hand them to you without revealing their numbers to their competitors. I'll often model the first round for students so they know they are completing the Widget Production slips correctly.

6. Begin by writing all the company names on the board or overhead. Then post the round 1 production figures. Be sure to add up the number of widgets produced in each round and keep a running total of all the widgets produced in the game. Point out the "loser" companies whose profits don't match those of their competitors. Tell these companies that their stockholders are getting restless because their competitors are so much more successful, even though they began with the same amount of capital. If one company decides that it wants to produce no or few widgets, I may declare that company bankrupt and distribute those students to other groups so that they get the message that failing to compete has consequences. I always remind students how good that chocolate will taste for the students in the winning companies.

7. Continue round by round, indicating the most and least profitable companies. Emphasize that as they purchase machines, production increases exponentially.

8. Finish all five rounds, even if they exceed the trigger number. Then unveil the trigger number (the market limit): Open up the folded paper and read the number out loud.

9. If, by some miracle, at the end of round 5, widget production of all companies has not exceeded the market limit, award the prizes to the groups as indicated on their role sheet.

10. Afterward, before discussing, ask students to write about the activity. I choose a few of the following questions:
    - In our class, who or what was responsible for the "crisis of overproduction?
    - Beyond blaming this group or that group, why didn't anyone stand up and say, "This is crazy. We're all going to lose. Let's cooperate on this and not make as many widgets?"
    - Is there something deeper going on here? What about the rules of the game itself? How were the rules responsible for the crisis of overproduction?
    - Let's relate this to the real world. Is this just a game? Obviously, there are a lot of ways that this wasn't real: we were competing for chocolate, we had only five rounds, there is no such thing as a widget, we assumed that people

were buying absolutely everything you produced, you're in high school, not corporate executives. But how does this simulation connect to reality and what lessons does it teach us?

- If we were to do this again, do you think that you could win? What would you do differently?
- What effect might these new strategies have on your workers?
- Let's go back to the "Widget Book Game Role Sheet" where I said you couldn't make any profit from reducing your labor costs because you were already making your workers work faster and longer for little pay. Imagine for a second if every industry paid their workers this badly—the bare minimum they needed to survive. How might this affect the economy? (Use this question to explain a crisis of underconsumption.)
- In the real world, let's say a business wants to buy machine No. 4 from the get go, but doesn't have the money. What can they do? (Get a loan.)
- What if industry starts paying workers even less than they need to get by? What options do workers have? If you can't afford something, but need it now, what would you do? (Use these last two questions to discuss the role of banks in prolonging a boom and exacerbating an economic crisis)

# Widget Boom Game
## Role Sheet

You are managers of a company that produces widgets. You are in competition with other widget companies. Your goal, of course, is not to end up with a mountain of widgets but to end up with a mountain of money. In order to accomplish that goal you will need to sell as many widgets as possible to widget consumers. In today's economy there is especially fierce competition as you search out new markets to sell widgets. Even though you have an important and highly paid job owning and running a business, your job is only as secure as your company. As with any capitalist enterprise, you need to make a profit. If you don't, other widget companies will outsell you and you'll be forced to shut down your operation.

There are several ways to increase your profits. One way to increase profits is by reducing your labor costs. If you pay your workers less, you have more money left over as profit. You can also make your workers work faster or for longer hours without raising their pay. The problem is that you've already done this—made your employees work harder and faster for little pay. But a worker needs at least enough money to live, and if your workers are working too hard they'll get sick and won't be able to work. So right now there isn't much profit to be made by reducing your labor costs.

Ultimately, the best way to increase your profits is to sell more widgets. You want to try to increase productivity—the number of widgets each worker can produce. There are new machines that allow workers to produce more widgets in the same amount of time. In fact, newer and better machines are being invented all the time. This means that with each new piece of productive machinery you buy, your business can produce more and more widgets.

But if all businesses are producing as many widgets as possible, this can create a problem for you. People can only buy so many widgets. So if the widget industry is producing too many, people will stop buying them. Prices for widgets will plummet and it will no longer be profitable to produce them. This "crisis of overproduction" could send the widget industry into a tailspin, with businesses shutting their doors left and right.

On the other hand, the biggest companies have the best chance of surviving a crisis of overproduction because the more profit you have, the easier it is to wait out a crisis. During a crisis, hundreds of thousands of workers will lose their jobs and the fierce competition for jobs means you can pay even less. Secondly, the machinery and the factories of bankrupt businesses are tremendously devalued. The bigger companies that have survived a crisis can sweep in and buy up these dirt-cheap businesses. The big fish eat the small fish. The cheaper capital and labor costs mean that the remaining businesses can once again begin to operate profitably and a widget boom can begin again. In other words, you don't want to be one of the small fish, so produce as much as you can.

## Rules of the Game

Each company will begin the game with $2,000 and no machines. The number of widgets you can produce in one round (your productive capacity) is determined by the number of machines you own and the amount of money you have. Of course, you could produce fewer widgets than your productive capacity will allow, but that wouldn't be very profitable.

At the start of the game, each widget costs $2 to produce. You will make $4 from every widget you produce and sell. So, for example, if you produce at full capacity in round 1, you will spend all $2,000, make 1,000 widgets, and you'll get back $4,000 in profit.

If you accumulate enough profit, you can spend some of it to buy a machine, which allows you to increase your business's productive capacity. Building on the first example, if you put $2,000 of your profit from round 1 into buying a machine in round 2, you will be left with the same amount of money you started with in round 1—$2,000. But with this new machine, widgets only cost $1 to produce and still make you $4! This means that if you produce at full capacity again, you will make $8,000 instead of $4,000. Your factory can only house one machine at a time, but each round you can buy the newest machine you can afford. The later the model of your machine the bigger your productive capacity will be.

To simulate the real-life consequences, here's how scoring will work, There will be five "production" rounds, At the end of the fifth round, you will be rewarded based not on how nice you are to each other, but on how much profit you've made for the company:

### Rewards:

| | |
|---|---|
| Top group: | Candy bars for every group member |
| Group 2 & 3: | One candy bar to split between group members |
| Group 4: | Nothing |
| Group 5: | Nothing |
| Group 6: | Nothing |
| Group 7: | Nothing |

Should all groups tie, each group will receive one candy bar to share.

**Here's the catch: There are only so many people who need widgets. If there are too many widgets on the market, people won't want to buy them anymore. If this happens there is a crisis of overproduction in the widget market. No one knows exactly how many widgets is too many, but market analysts suspect it to be somewhere between 1,000,000 and 3,000,000 widgets. If the total production of widgets for all rounds goes above this trigger number, than all widget companies will go out of business, starting a depression, and no one will receive any candy.**

# Widget Production

**Round # ____**                    **Company name: _____**

| Machines: | Cost: | Widget Cost: | Widgets per $ |
|-----------|-------|--------------|---------------|
| 0 | $0 | $2 | .5 |
| Model No. 1 | $2,000 | $1 | 1 |
| Model No. 2 | $4,000 | $0.50 | 2 |
| Model No. 3 | $16,000 | $0.25 | 4 |
| Model No. 4 | $32,000 | $0.10 | 10 |

## Profit Calculator:

**Step 1: (Not buying a machine? Skip to step 2)**
(profit from previous round) – (cost of new machine) =

$_____ - $_____ = _____

**Step 2: What is your available capital?** (If you did not buy a machine this round, it is the profit you made last round or $2,000 in round 1. if you did buy a machine it is your answer to Step 1)

_____

**Step 3: How much of your available capital do you want to spend producing widgets this round?**

_____

**Step 4: How many widgets are you making this round?**
(answer to Step 3) X (widgets per $) =

$_____ x _____ = _____

**Step 5: How much profit will you make?**
(i.e., Available capital after production)
(answer to step 2 – answer to step 3) +
(answer to Step 4 x $4) =

$_____ - $_____ = $_____
_____ x $4      = + $_____
                 = $_____

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# Widget Production

# Widget Boom Game Scoring Guide

| COMPANY NAME | ROUND 1 | | ROUND 2 | | ROUND 3 | | ROUND 4 | | ROUND 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AVAILABLE CAPITAL | WIDGETS PRODUCED | AVAILABLE CAPITAL | WIDGETS PRODUCED | AVAILABLE CAPITAL | WIDGETS PRODUCED | AVAILABLE CAPITAL | WIDGETS PRODUCED | AVAILABLE CAPITAL | WIDGETS PRODUCED |
| 1. | | | | | | | | | | |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| TOTAL WIDGETS PRODUCED | | | | | | | | | | |

**CRISIS OF OVERPRODUCTION:**
WHEN TOTAL WIDGETS PRODUCED EXCEEDS THE TRIGGER NUMBER (SOMEWHERE BETWEEN 1,000,000 and 3,000,000)