



POWELL CENTER FOR
ECONOMIC LITERACY

Lesson Plan

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Thinking on the Margin: Economics and Snack Food

Time Required

15 – 20 Minutes

Grade Level and Subject

High School; Math or Health Class
(easily adapted for Middle School)

Keystone Principles

Principle #7 – Economic Thinking Is Marginal Thinking

Voluntary National Content Standards in Economics

Standard #2 – Effective decision making requires comparing the additional costs of alternatives with the additional benefits.

Economic Concepts

Cost/Benefit Analysis – *A process of examining the advantages (benefits) and disadvantages (costs) of each available alternative in arriving at a decision.*

Marginal Benefit – *The additional gain from consuming or producing one more unit of a good or service; can be measured in dollars or satisfaction.*

Marginal Cost – *The increase in a producer's total cost when he or she increases output by one unit.*

Marginal Utility – *The extra value or satisfaction that a consumer obtains from consuming one additional unit of out.*

Overview

We all make hundreds of choices every day. We make many choices quickly, without a second thought. However, some of the choices we make are not as effective as they might be because we do not take the time to compare the additional costs of alternatives with the additional benefits. The principles are the same, whether we are talking about nutrition, how to spend our time, or how to allocate dollars from a paycheck.

Objectives

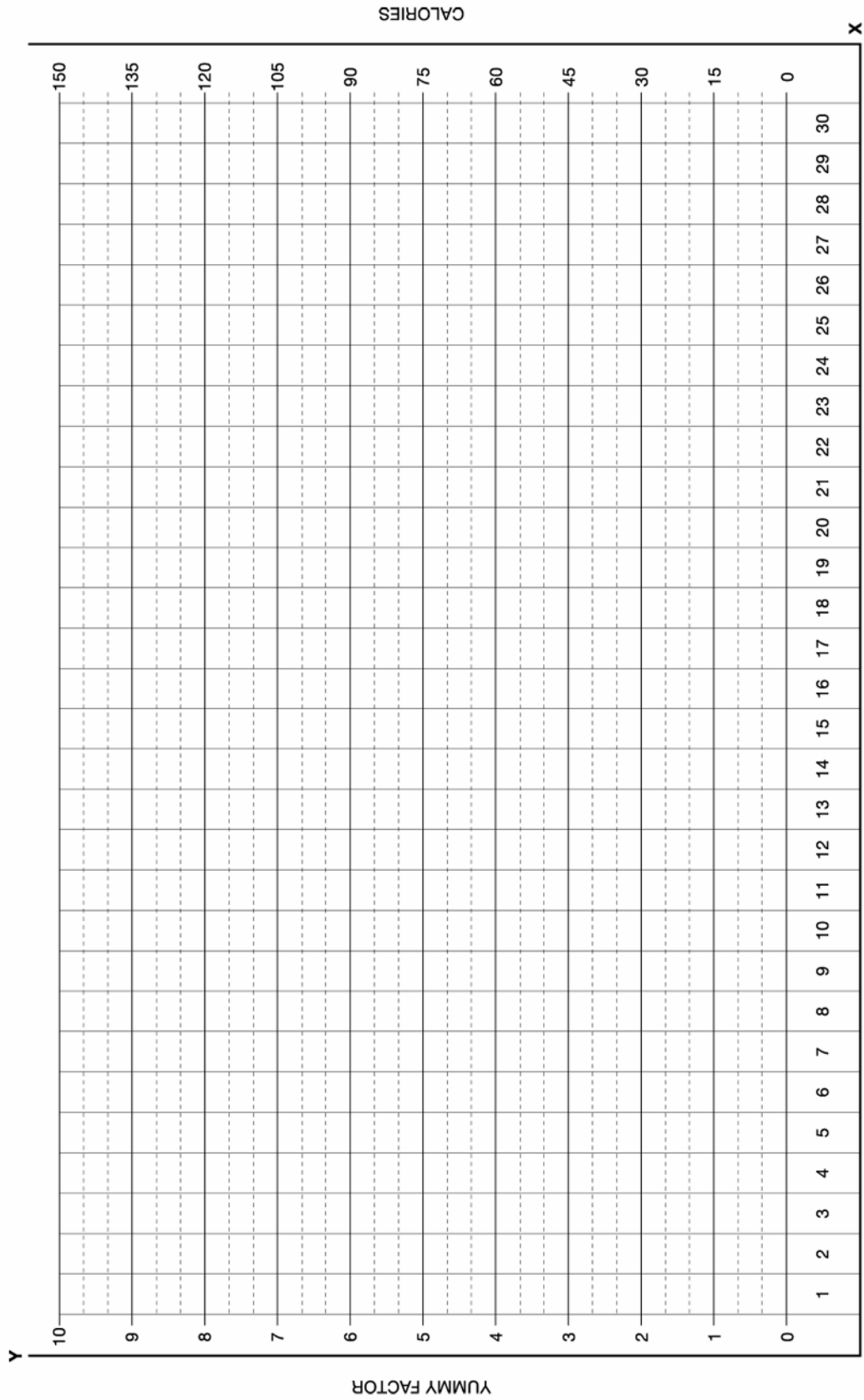
- Students will understand that “one more unit” of anything they choose has additional costs and benefits, and that making effective decisions requires analyzing those costs and benefits.
- Students will graph and identify the point of intersection between marginal utility and marginal cost.
- Students will be able to use information from the graph to discuss how decisions are “made at the margins.”
- Students will be able to provide other examples of making choices at the margins.

Materials and Handouts

- One bag of M&M's® for each student (each bag should contain at least 30 pieces)
- Graph Handout
- A ruler and a pencil

Teaching Activity

1. Give each student a bag of candy and a copy of the graph handout.
2. Instruct the students to eat the M&M's® one at a time and rate the “Yummy Factor” or satisfaction (marginal utility) they get from each one on a scale of 1 to 10. (“Utility” has a very specific meaning in Economics and your students will benefit from becoming familiar with using the term correctly.) Have them mark a point on the graph for each M&M® until they reach “0” satisfaction or have eaten all 30 M&M's®. Ask the students to draw a line connecting all the points.
3. Next, have the students draw a line from the bottom left corner of the graph to the top right corner. This line represents the calorie intake (marginal cost) for each M&M® on the graph. (Each candy is approximately 5 calories.)
4. Then have the students circle the place on their graph where the two lines intersect. Ask some of the students how many M&M's® they have eaten to this point. Explain that this is how many M&M's® they should eat based on the cost (calories)/benefits (satisfaction) analysis that the graph provides, focusing on the concept of the cost and benefit of “one more unit.” Ask them what alternative they would choose that would give them more satisfaction for the same cost.
5. Emphasize the point that this exercise presents one example of marginal costs versus marginal utility. But the underlying idea has widespread applications. Have the students provide examples of other decisions they make at the margin.



NUMBER OF M&M'S®

Y

X

YUMMY FACTOR

CALORIES

150
135
120
105
90
75
60
45
30
15
0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30