



PRINTABLES

PREMIUM EDUCATIONAL RESOURCES

GRADE 6 MATH + FINANCIAL LITERACY

# Project-Based Learning Bundle

3 Real-World Projects: Allowance Tracker • Lemonade Stand • First Phone Plan

|             |                                                                   |
|-------------|-------------------------------------------------------------------|
| Grade Level | Grade 6 (also reviews well in Grade 7)                            |
| Standards   | 6.NS.B.3 • 6.RP.A.3c • 6.EE.B.7 • 6.EE.B.8 • 6.EE.C.9 • 6.NS.C.8  |
| Projects    | 3 printable packets (≈12 pages each) + pacing guide + answer keys |
| Time        | 10 instructional days (45–60 min each)                            |
| Prep        | Print & go — no extra materials required                          |

Decimal operations • percent of a quantity • one-variable equations • two-variable relationships • graphing on the coordinate plane • inequalities — all taught through authentic money decisions.

# Welcome & How to Use This Bundle

Dear Educator, thank you for choosing UM Printables! This bundle ties Grade 6 Common Core math to financial literacy through three project-based learning (PBL) experiences. As more states require personal-financial-literacy instruction, these projects give students authentic reasons to add, multiply, and reason with percents and equations — because real budgets demand real accuracy.

## What's Inside

- ☐ Project 1 — **Allowance Tracker** (3 days): decimal operations, percent of a quantity, savings-growth equations.
- ☐ Project 2 — **Lemonade Stand** (4 days): cost per cup, markup & profit margin, profit equations and graphs.
- ☐ Project 3 — **First Phone Plan** (3 days): writing equations, graphing three lines, inequalities for decision-making.
- ☐ A 4-criterion analytic rubric for every project (mathematical accuracy / financial-literacy application / real-world justification / presentation).
- ☐ Complete answer keys with fully worked solutions and sample student exemplars.
- ☐ A 10-day teacher pacing guide with mini-lessons, misconceptions, and differentiation.

## Suggested Routine (each day)

- ☐ **Launch (5–8 min)**: quick number talk or “Turn and Talk” hook from the packet.
- ☐ **Mini-lesson (10 min)**: model one worked example using the packet’s vocabulary.
- ☐ **Project work time (20–30 min)**: students complete the day’s tasks; confer with small groups.
- ☐ **Share & exit ticket (5–8 min)**: students summarize reasoning and complete the exit ticket.

### Financial-Literacy Note

“Pay yourself first” is the habit at the heart of Project 1: a fixed **percent** of every paycheck goes to savings *before* spending decisions are made. Projects 2 and 3 build the entrepreneur and consumer side: profit = revenue – costs, and comparing fee structures before signing a contract. These are the exact habits state financial-literacy standards emphasize.

### Interactive Features to Look For

- “I can...” self-check checklists and daily exit tickets for formative assessment.
- “Turn and Talk” reasoning prompts and a reflection page in each packet.
- Labeled diagrams (money-flow map, price markup bar) and coordinate-plane graphing pages.
- Vocabulary banks with student-friendly definitions on every project cover.

# Teacher Pacing Guide (10 Days)

| Day | Project & Focus              | Key Learning                             | Standards          | Assessment              |
|-----|------------------------------|------------------------------------------|--------------------|-------------------------|
| 1   | P1 • Allowance Tracker Day 1 | Decimal earnings & spending logs         | 6.NS.B.3           | Exit Ticket 1           |
| 2   | P1 • Allowance Tracker Day 2 | Savings rate: percent of a quantity      | 6.RP.A.3c          | Exit Ticket 2           |
| 3   | P1 • Allowance Tracker Day 3 | Savings-growth equations + graph         | 6.EE.B.7, 6.EE.C.9 | Exit Ticket 3 + rubric  |
| 4   | P2 • Lemonade Stand Day 1    | Budget & cost per cup (decimal division) | 6.NS.B.3           | Exit Ticket 4           |
| 5   | P2 • Lemonade Stand Day 2    | Markup, price, profit margin percents    | 6.RP.A.3c          | Exit Ticket 5           |
| 6   | P2 • Lemonade Stand Day 3    | Profit equation + break-even             | 6.EE.B.7, 6.EE.C.9 | Exit Ticket 6           |
| 7   | P2 • Lemonade Stand Day 4    | Graph profit; price comparison; pitch    | 6.EE.C.9, 6.NS.C.8 | Exit Ticket 7 + rubric  |
| 8   | P3 • First Phone Plan Day 1  | Write equations; build cost tables       | 6.EE.C.9, 6.NS.B.3 | Exit Ticket 8           |
| 9   | P3 • First Phone Plan Day 2  | Graph three plans on one plane           | 6.NS.C.8           | Exit Ticket 9           |
| 10  | P3 • First Phone Plan Day 3  | Inequalities + recommendation letter     | 6.EE.B.8           | Exit Ticket 10 + rubric |

## Differentiation & Misconceptions (by project)

### Project 1 — Allowance Tracker

**Common slip:** multiplying by 40 instead of 0.40. Fix: connect  $40\% = 40/100 = 0.40$  and estimate first (40% of \$13.75 is a bit more than \$4).

**Support:** pre-fill the Week 1 column and provide a percent bar model. **Extend:** compare 40% vs. 60% savings over 8 weeks (\$44.00 vs. \$66.00).

### Project 2 — Lemonade Stand

**Common slip:** confusing *revenue* (money in) with *profit* (money left after costs). Fix: chant “profit = revenue – costs.”

**Support:** use play money to act out buying 40 cups of supplies. **Extend:** find the break-even for a \$0.60 price ( $0.60c = 12.00 \rightarrow c = 20$ ).

### Project 3 — First Phone Plan

**Common slip:** forgetting the base fee when computing cost (writing  $0.10m$  instead of  $12 + 0.10m$ ). Fix: always ask “what do you pay even at 0 minutes?”

**Support:** highlight the base fee in each table’s first row. **Extend:** find exactly where Plans A and B cost the same ( $m = 150$ ).

# Project 1 — Allowance Tracker (Student Packet)

## PROJECT 1 • ALLOWANCE TRACKER

3 days • decimal operations • percent of a quantity • equations

### The Scenario

Maya gets a **\$6.00** weekly allowance. She can earn extra money with two chores: **taking out the trash (\$1.50 each time)** and **washing the family car (\$3.25 per wash)**. Maya “pays herself first”: every week she puts **40% of her total earnings** into savings for **wireless earbuds that cost \$44.00**. The other 60% goes into her spending wallet. Your job: track Maya’s money like a financial pro and use math to predict her future savings.

### How Maya's Money Flows Each Week



Standards in this project:

6.NS.B.3

6.RP.A.3c

6.EE.B.7

6.EE.C.9

### Vocabulary Bank

| Word                  | Meaning                                                 |
|-----------------------|---------------------------------------------------------|
| earnings              | all money received (allowance + chore pay)              |
| savings rate          | the percent of earnings set aside before spending       |
| percent of a quantity | a rate per 100; 40% of \$10 = $0.40 \times 10 = \$4.00$ |
| dependent variable    | the quantity that depends on another (total savings S)  |
| independent variable  | the quantity you choose (weeks w)                       |

### My “I can...” Goals (check as you master them)

- ☐ I can add and multiply decimals to find weekly earnings.
- ☐ I can find 40% of a quantity to compute savings.
- ☐ I can write and solve an equation of the form  $px = q$ .
- ☐ I can write  $S = 5.50w$  and graph the relationship.

# Project 2 — Lemonade Stand (Student Packet)

## PROJECT 2 • LEMONADE STAND

4 days • decimal division • markup & profit margin • profit equations & graphs

### The Scenario

You and two partners are launching **Squeeze the Day Lemonade!** Your one-time supply budget buys exactly **40 cups** of lemonade: lemons **\$4.50**, sugar **\$2.25**, cups **\$3.00**, ice **\$2.25**. You must set a price, predict profit with an equation, graph it, and pitch your plan to “investors” (your class). Remember: **profit = revenue – costs**.

Standards in this project:

6.NS.B.3

6.RP.A.3c

6.EE.B.7

6.EE.C.9

6.NS.C.8

### Vocabulary Bank

| Word                    | Meaning                                               |
|-------------------------|-------------------------------------------------------|
| <b>cost</b>             | money spent to make the product (here, \$12.00 total) |
| <b>cost per cup</b>     | total cost ÷ cups made (a unit rate)                  |
| <b>markup</b>           | percent of the cost added on to set the price         |
| <b>revenue</b>          | money collected from sales (price × cups sold)        |
| <b>profit</b>           | revenue – costs; negative profit is a loss            |
| <b>break-even point</b> | cups sold where profit is exactly \$0                 |

### My “I can...” Goals

☐  
☐  
☐  
☐

- I can divide decimals to find a unit cost.
- I can use percents to set a price and describe profit margin.
- I can write and graph  $P = 0.75c - 12.00$ .
- I can find and interpret the break-even point.

# Project 3 — First Phone Plan (Student Packet)

## PROJECT 3 • FIRST PHONE PLAN

3 days • equations • graphing on the coordinate plane • inequalities

### The Scenario

You're getting your first phone! Your family will pay the **monthly base fee**, but you must explain which plan fits your usage. Compare three plans: **Plan A “Starter”**: \$12 base + \$0.10 per minute. **Plan B “Family Saver”**: \$18 base + \$0.06 per minute. **Plan C “Unlimited”**: \$30 flat, any minutes. You'll write equations, graph all three plans, and use inequalities to prove which plan wins at different usage levels.

Standards in this project:

6.NS.B.3

6.EE.C.9

6.NS.C.8

6.EE.B.8

### Vocabulary Bank

| Word                       | Meaning                                             |
|----------------------------|-----------------------------------------------------|
| <b>base fee</b>            | fixed monthly cost, even at 0 minutes               |
| <b>per-minute rate</b>     | variable cost added for each minute used            |
| <b>linear relationship</b> | a pattern that graphs as a straight line            |
| <b>intersection point</b>  | where two graphs cross — the plans cost the same    |
| <b>inequality</b>          | a statement using $<$ or $>$ to compare expressions |

### My “I can...” Goals

☐  
☐  
☐  
☐

I can write  $C = 12 + 0.10m$ ,  $C = 18 + 0.06m$ , and  $C = 30$ .

I can graph three lines on one coordinate plane.

I can find and interpret intersection points.

I can write and test inequalities like  $12 + 0.10m < 18 + 0.06m$ .



## WHAT'S INCLUDED IN THE FULL 33-PAGE BUNDLE?

A complete Grade 6 classroom resource connecting Common Core math skills to three structured financial-literacy scenarios.

01

### ALLOWANCE TRACKER

#### 3-day student packet

Decimal operations, percent of a quantity, savings-growth equations and graphing. Includes Maya's earnings, savings and spending scenario.

02

### LEMONADE STAND

#### 4-day student packet

Budgeting and cost per cup, markup and profit margin, profit equations, break-even, graphing, price comparison and an investor pitch.

03

### FIRST PHONE PLAN

#### 3-day student packet

Write cost equations, complete tables, graph three plans, identify intersections, solve inequalities and write a recommendation for 180 minutes/month.

04

### TEACHER SUPPORT

#### 10-day pacing guide + differentiation

Daily focus, standards, exit tickets, common misconceptions, support moves and extension suggestions.

### TEACHER + STUDENT COMPONENTS

- **Student packets**

8 pages + 7 pages + 6 pages = 21 project pages

- **Rubrics**

A 4-criterion analytic rubric for each project

- **Answer keys**

Pages 27-32 with worked solutions and completed graphs

- **Exemplars**

Sample student responses for all three projects

### STANDARDS & SKILLS

6.NS.B.3 • 6.RP.A.3c • 6.EE.B.7 • 6.EE.B.8 • 6.EE.C.9 • 6.NS.C.8

Decimal operations • percent of a quantity • one-variable equations • two-variable relationships • coordinate-plane graphing • inequalities

### 10-DAY FLOW

Days 1-3: Allowance Tracker

Days 4-7: Lemonade Stand

Days 8-10: First Phone Plan

### CLASSROOM-READY FEATURES

Daily exit tickets

I can... self-checks

Turn &amp; Talk prompts

Vocabulary banks

Labeled diagrams

Graphing pages

Reflection pages

Differentiation support

### SEE THE COMPLETE RESOURCE AT UMPRINTABLES.COM

The full bundle contains the complete student packets, teacher pacing guide, standards alignment, rubrics, answer keys, completed graphs, sample exemplars and final review materials.