

Percentages and Your National Budget

Mathematics · Grades 5-12 · 45-60 minutes

This free lesson runs the full SFC Nations cycle: Learn » Explore » Create » Make Decisions » Apply. The academic content comes first, then the student uses it to run a nation of their own.

1. LEARN

The concept, stated plainly.

- A percent is a part out of one hundred. 18% of a number means 18 hundredths of it.
- To take a percent of an amount, multiply: 18% of \$240,000 = $0.18 \times 240,000 = \$43,200$.
- To find a percent from two numbers, divide the part by the whole, then multiply by 100.
- A budget balances when income minus spending is zero or better. Negative means you are drawing down savings.

2. EXPLORE

Poke at it before applying it.

1. Your nation has 12,000 citizens each earning \$18 per day. What is total daily income?
2. At a 22% tax rate, how much does the treasury collect per day? Per 30 days?
3. Military upkeep costs \$31,000 per day. What percent of your tax revenue is that?
4. Round every answer sensibly and note what you rounded away.

3. CREATE

Make something that is yours.

1. Build a one-page budget with four spending lines: military, infrastructure, education, and reserve.
2. Assign each line a percentage of tax revenue. The four must total 100%.
3. Convert each percentage into actual dollars.
4. Write your projected 30-day treasury balance.

4. MAKE DECISIONS

No option is free. Choose anyway.

1. Raising taxes from 22% to 30% adds revenue but lowers citizen happiness, which slows population growth. Do you raise it?
2. You can fund one improvement this month: a school (long payoff) or barracks (immediate safety). Which and why?
3. Cutting military upkeep by 40% saves money but invites an attack. Cut or hold?

5. APPLY WHAT YOU LEARNED

Use it in your nation and measure the result.

1. Run your budget for one in-game week and record the actual treasury each day.
2. Compare the actual balance to your projection. Calculate the percent error.
3. Rewrite next week's budget using what the error taught you.

Student worksheet

Name: _____ Date: _____

1. What was your daily tax revenue, and how did you calculate it?

2. Which spending line took the largest percentage, and was that the right call?

3. What was your percent error between projection and reality?

4. What is one number you would change first next week?

Parent and teacher notes

- Grade the reasoning, not the outcome. A defended bad decision beats a lucky one.
- Ask “what did that cost you?” after every choice the student makes.
- Let a nation fail once. The recovery week teaches more than the lesson did.

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