



THE PERMANENT FUND  
**ALASKA'S  
RENEWABLE  
REVENUE**

**LESSON & ACTIVITY BOOK**



**alaskaresource™**  
E D U C A T I O N

**APFC** ALASKA PERMANENT  
FUND CORPORATION



# TABLE OF CONTENTS



- 2** Introduction
- 3** Standards Crosswalk
- 4** Introduction to Alaska’s Renewable Revenue
- 7** Create-a-State
- 20** The Permanent Fund: A Renewable Financial Resource
- 31** Fund Management Simulation Game





# An Introduction

The Alaska Permanent Fund was established in 1976 to permanently save and invest at least 25% of the state's oil royalties for intergenerational benefit. The Alaska Permanent Fund Corporation is a state-owned corporation based in Juneau, Alaska that manages the assets of the Alaska Permanent Fund and other funds designated by law. APFC's pioneering investment model has been recognized globally for its ability to create and grow value for Alaska on a sustainable basis.

Alaska's youth are the future leaders of our great state. As the investment manager of Alaska's largest renewable financial resource, APFC recognizes the Alaska Permanent Fund and the youth are essential aspects of Alaska's future. The lessons in this workbook were created to teach and empower Alaska's youth about financial literacy, the Fund, its structure, investment management, and how the Fund is used to convert non-renewable mineral resources into a renewable economic resource for Alaska at middle school and high school education levels.





# Standards Crosswalk

OBJECTIVE	AK MATH	AK SCIENCE	AK GOV	AK HIS
Explore the impact of resource development revenues on the State of Alaska's finances and how the Alaska Permanent Fund functions as a renewable financial resource through savings, investing, and producing revenue.	N-Q.1-3, A-SSE.1, A-CED.1-3, F-BF.1	ESS3-1, ESS3-2, ESS3-3, ESS3-4	C-1, C-3, C-5, F-2, F-4, F-5	AH.CPD.6, AH.CPD.7, AH.CC.5





# The Permanent Fund: Alaska's Renewable Revenue

Alaska's Renewable Revenue is curriculum developed in partnership with the Alaska Permanent Fund Corporation. Students will learn about the Alaska Permanent Fund, investing, how smart investors use diversification to ensure stability and maximize on returns, while learning about the value the Fund provides our state.

Check out the videos developed for the curriculum.

The Permanent Fund – Alaska's Renewable Revenue

<https://vimeo.com/akresource/alaskasrenewablerevenue?share=copy>



The Permanent Fund – Diversification

<https://vimeo.com/akresource/arrdiversity?share=copy>





# Video 1 Questions

## Video 1 - The Permanent Fund

Questions:

1. What are some benefits of the oil industry?
2. What was built in the 1970's to transport oil?
3. Oil is not a renewable resource, meaning it will run out someday and the money the state of Alaska makes will stop flowing with it. What was created to help ensure there is money for future generations, even after the oil stops flowing?

Stop video at 1 minute to answer and discuss above questions.

4. What are the 3 primary functions of the Alaska Permanent Fund?
5. What percent of money from oil, gas and mining royalties must go into the Fund's Principal?
6. How or where is the Permanent Fund money invested?
7. What is a strategy used by the Permanent Fund staff to reduce risk?

Stop video at 2 minutes to answer a discuss above questions.

8. How much of the Fund's earnings have been used since 1976?
9. Is Alaska's Legislature allowed to spend as much money as they want from the earning reserves account?
10. What are some examples of things the Fund pays for?

Answers:

1. Jobs, development, sweet work schedule (0:10)
2. The Trans-Alaska Pipeline (0:20)
3. Alaska Permanent Fund (0:39)
4. Savings, Investments, Stability - Revenue Stream (1:02)
5. At least 25%, per The Alaska State Constitution (1:04)
6. Stocks, bonds, real estate, shopping malls, etc. (1:40)
7. Portfolio diversification (1:58)
8. \$82 billion, as of June 2023 (2:45)
9. Yes, but they made a rule that limits them to spending 5% every year (3:12)
10. Schools, public safety, natural resources, PFD (3:28)





# Video 2 Questions

## Video 2 - Renewable Revenue

Questions:

1. What are some of the natural resources in Alaska that fuel our economy?
2. What is Alaska's biggest single source of revenue?
3. What started the Permanent Fund?
4. What do experts in Alaska do to help the Permanent Fund grow?

Stop video at 1 minute to answer and discuss above questions.

5. How does a diverse diet relate to diverse investments for the Fund?
6. What would happen if you didn't diversify? (Hint: think of the pizza example from the video)

Answers:

1. Oil & gas, mining, fishing (0:08)
2. The Alaska Permanent Fund (0:19)
3. Royalty income from oil leases (0:21)
4. Invest the money (0:48)
5. A diverse diet means you eat a variety of foods, and if something goes wrong with one food source, it is ok, because you have other options. In that sense your diet is balanced and healthy and you are not relying on any one food source to keep you alive. (1:19)
6. You might lose all your money; diversification makes the investments safer.

Additional details: A diversified portfolio contains a mix of asset types and investment to limit risk exposure to any single asset. If one asset class is doing well - one may be doing poorly or vice versa over the long term investment horizon of the Fund.





# Create-A-State:

**Essential Question: How do states have money to run their government? What role do natural resources play?**

**Grade:**

9-12

**Time:**

1 hour

**Overview:**

Students will learn about how Alaska became and stayed a state due to its natural resources (namely, oil resources) and to challenge them to think about how you can transform a nonrenewable resource into a renewable resource.

**Assessment:**

Can the student effectively describe how the Alaska government funds its needs with different revenue streams? Can the student articulate potential issues with having a non-diverse revenue stream?

**Vocabulary:**

Natural resources, Renewable resources, Nonrenewable resources, Revenue, Oil reservoir, Commercial fishing, Taxes Investment

## TEACHER INFORMATION AND PROCEDURE

**Prior Knowledge for students:**

The student should be able to define and give an example of a source of revenue for the state. They should understand what industries (resources) are major economic contributors to the State of Alaska.

**Materials Needed:**

Resource generation card, Oil and fish cards

**What to do in Advance:**

Print out resource cards (laminated optional), One set of resource generation cards are needed for the class, One set of oil/fish cards required per group

## TEACHING THE LESSON

**Gear-up:**

Ask students what they think the State of Alaska helps pay for around their community or the state. Discuss things like schools, university, roads, ports, troopers, VPSO, fish and game, medical programs for those in need, etc.

Ask students how the state can afford those expenses.

**Explore:**

In teams of four or five, students are tasked with starting a brand-new state and generating revenue to meet the budget needs of their government. To make money, they can sell off two of their most plentiful resources, oil and fish.

The goal of the game is for students to meet their government's annual budget demands of \$50,000 using only these resources as their revenue streams, and to make them last as long as possible. They should also consider whether or not these resources are enough to fully support their government, both today and in the future.







# Create-A-State:

Show the students the video "[The Permanent Fund – Alaska’s Renewable Revenue](#)"

## Assess:

Can students identify the State of Alaska’s biggest revenue streams and explain how they are connected to our natural resource industries? Can they explain the importance of setting some of the revenue aside to support Alaskans today and in the future?

## Extensions, Adaptations and More Resources:

- Have the students play the game again with additional natural resources and discuss similarities/differences with the outcome
- Have the students create their own Resource Generation cards
- Explore Alaska’s state budget





# Create-A-State:

## How to play the game

### How to play the game:

Pass out five oil and five fish cards to each team to start the game.

### Year 1:

Each team draws a Resource Generation card and reads it out loud to the group. They will do what the card tells them to do, which may be either gaining or giving a fish or oil card. The teacher will collect all discarded cards and pass out new cards to those who need them.

After each team has drawn, all teams need to pay \$50,000 to their government (a separate pile face down so it is clearly separate from their resource money cards, or the teacher will come around and collect).

### Year 2-X:

Repeat the previous steps.

When a team can no longer pay the \$50,000, they are out. Let the other teams continue to play until none of the teams can still pay their government.

If a team does not have the exact “change” they have to pay at least \$50,000 (e.g. if they only have \$60,000 they have to pay that much).

You may optionally add variation to the state budget each year – e.g. the state has approved a lot of road construction projects for this upcoming season, so the state budget this year is \$70,000.

### Generalize:

Discuss with students why the diverse revenue streams Alaska has acquired are important and the various avenues Alaska uses to make profit. In addition, students can articulate the challenges Alaska faces with our current system. Ask students if they think a state budget stays the same every year. Discuss what factors may impact a changing state budget. Discuss with students what factors (environmental and human) from the resource generation cards helped and which ones hurt their ability to meet their state budget each year.

- When considering fish and oil, which one of these resources is nonrenewable?
- What can be done to support your state when nonrenewable resources no longer can?
- Is there a way to make revenue from natural resource industries (oil and gas) last longer, despite them being a nonrenewable resource?

Discuss why having diverse revenue streams in Alaska are important, and the other resources that already contribute significant revenue for the state.

What they might do if they were given a large amount of money that they could use today and also have for their future?

Introduce the concept of the Alaska Permanent Fund, which was established in 1976 to invest some of the revenue obtained from Alaska’s oil and gas reserves. Managed by the Alaska Permanent Fund Corporation (APFC), the Fund’s value today is over \$77 billion, which has grown from the first deposit from oil revenues of \$734,000 in 1977.





# Create-A-State: Resource Cards (front)

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION





# Create-A-State: Resource Cards (back)

An environmental group protests your project. You must spend money to defend the company.

Discard 1 oil card

Business as usual.

No action

Fishing is stable.

No action

Normal production year.

No action

New technology helps you drill a longer horizontal well.

Draw 1 oil card

New net materials help you catch more fish.

Draw 1 fish card

Your company gets a fine for being out of compliance.

Discard 1 oil card

Local community is worried your commercial fishing is hurting their fishing.

Discard 1 fish card

Fish runs are excellent.

Draw 1 fish card

You reach your by-catch limits on octopus.

Draw 1 fish card

Your boat hits a rock and sinks. You lose all your fish.

Discard 1 fish card

Caribou migration halts oil production for a few days.

Discard 1 oil card





# Create-A-State: Resource Cards (front)

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

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GENERATION

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RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION





# Create-A-State: Resource Cards (back)

Tax credits were given to oil companies to explore for more oil.

Draw 1 oil card

Oil prices dropped and companies had to let employees go. This slows production.

Discard 1 oil card

A restoration project helped fish spawning habitats.

Draw 1 fish card

Many fish were caught as by-catch in the ocean and reduced returns.

No action

Oil prices are stable.

No action

Gas prices go up and fishing is more expensive.

Discard 1 fish card

War breaks out and the U.S. can't trade for oil, so Alaska must drill for more oil.

Draw 2 oil cards

Gas prices go down and fishing is less expensive.

Draw 2 fish cards

Fish are really big this year.

Draw 1 fish card

The weather was nice, you were able to fish more days.

Draw 1 fish card

A big storm keeps you from fishing for several days.

Discard 1 fish card

Frozen pipes halt oil production for a few days.

Discard 1 oil card





# Create-A-State: Resource Cards (front)

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION

RESOURCE  
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GENERATION

RESOURCE  
GENERATION

RESOURCE  
GENERATION





# Create-A-State: Resource Cards (back)

An oil company in your state discovered a new oil reservoir.

Draw 1 oil card

An oil company in your state had a spill.

Discard 1 oil card

There was a great run of salmon this year.

Draw 1 fish card

A disease went through your population of fish and returns were low.

Discard 1 fish card

Commercial fishing was good this year.

Draw 1 fish card

The fishing industry could not find enough employees to fish.

Discard 1 fish card

It was too hot for the fish to survive.

Discard 1 fish card

Bear populations were high and they ate more fish, so there were less to catch.

Discard 1 fish card

A new land was opened up for oil exploration.

Draw 1 oil card

An invasive fish species starts to impact Alaska fish runs.

Discard 1 fish card

It was too cold for the fish to survive.

Discard 1 fish card

Bear populations were low, and they ate less fish, so there were more to catch.

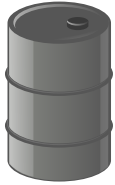
Draw 1 fish card







# Create-A-State: Oil Cards (front)



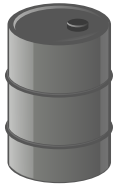
OIL



OIL



OIL



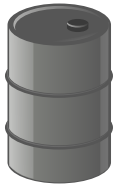
OIL



OIL



OIL



OIL



OIL





# Create-A-State: Oil Cards (back)

200 BARRELS  
\$20,000

200 BARRELS  
\$20,000

300 BARRELS  
\$30,000

300 BARRELS  
\$30,000

100 BARRELS  
\$10,000

100 BARRELS  
\$10,000

500 BARRELS  
\$50,000

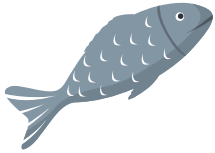
500 BARRELS  
\$50,000



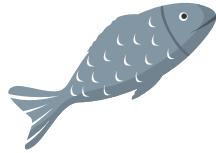


# Create-A-State:

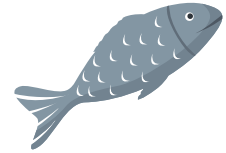
## Fish Cards (front)



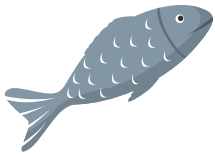
FISH



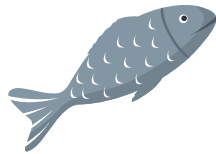
FISH



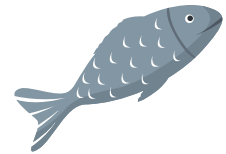
FISH



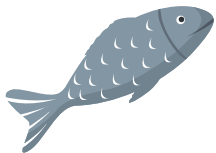
FISH



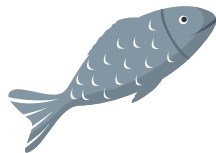
FISH



FISH



FISH



FISH





# Create-A-State: Fish Cards (back)

10 TONS  
\$10,000

10 TONS  
\$10,000

20 TONS  
\$20,000

20 TONS  
\$20,000

30 TONS  
\$30,000

30 TONS  
\$30,000

50 TONS  
\$50,000

50 TONS  
\$50,000





# The Permanent Fund: A Renewable Financial Resource

**Essential Question:** How do the mineral revenues from Alaska’s oil and gas industries provide for Alaskans today and in the future? What is the Alaska Permanent Fund? How does Alaska invest the Permanent Fund and manage it for the long run, as a renewable financial resource? What are the risks/rewards associated with investing and why is it important to diversify your investments?

**Grade:**

9-12

**Time:**

One class period

**Overview:**

Students will demonstrate how the Alaska Permanent Fund is managed as a renewable financial resource for Alaska. Students will learn what investments are and understand the importance of long-term investing and diversification.

**Assessment:**

Can the students explain how Alaska uses the Permanent Fund to benefit Alaskans today and save money for future generations? Who manages and invests the Permanent Fund? Explain what an investment is and why diversification is important?

The student should be able to define and give an investment example of a stock, bond, and real estate. Students should be able to explain rudimentary savings accounts

**Vocabulary:**

Financial Market Report, Investment, Diversification, Long-term investment, Principal, Bonds, Inflation, Real estate Reward, Risk, Stocks, Taxes

## TEACHER INFORMATION AND PROCEDURE

**Prior knowledge for students:**

Students should be able to articulate the purpose of the Alaska Permanent Fund, and give examples of common investments. Students should understand the concept of risks/rewards in the context of investing.

**Materials needed:**

“How to Invest” PowerPoint slides: <https://tinyurl.com/yc3nc83v>

Financial market report cards

Play money: \$1,500 per team:

- 2 x \$500
- 2 x \$100
- 2 x \$50
- 6 x \$20
- 5 x \$10
- 5 x \$1

**What to do in advance:**

Print out one set of market cards (laminated-optional)

Separate money into the correct (listed above) amounts for each group.

Have four different colored or labeled bins for the student’s money:

- Cash
- Bonds
- Stocks
- Real estate

**Scan to view PowerPoint**





# The Permanent Fund: A Renewable Financial Resource

## **Gear-up:**

Ask the students if they earned a lot of money, what would they do with it. Would they spend it all right away? Would they save some for the future, and if so, how much and why? Ask them about other ideas they might have to do with their savings, like investing it to earn more money. Ask them if a state government had savings, what could they do with it?

Have the students brainstorm examples of how a state could use its money. How can they make their savings renewable through investing to be able to use some today and make sure there is always some left for the future? Introduce the concepts of investment and diversification with the included PowerPoint. Discuss the importance of not putting all your money in one place, as well as the potential risk and rewards of each type of investment. Ask students what factors could impact a state's savings and their investments.

## **Explore:**

Students should be placed in the same teams as the previous lesson, and that they again are representing their newly founded state. Explain that the natural resources alone can no longer provide enough to support the state and so they are responsible for investing some of the revenue from natural resources to support the government today and ensure that it can continue to support them in the future. The point of the game is to support your government today while also growing your pool of money each year, and the team with the most money in year 5 wins.

### **Year 1**

Each team starts with the same amount of money, \$1,500.

Each team can invest as little or as much of their money as they want into the 3 different investment types, they can also save some in cash if they don't want to invest it all.

The teacher will draw a financial market report card and read it to the group. (These cards can be reused if needed). Using this information, the team must calculate how much money their investments made or lost based on how much they had in each type of investment. If they lost money, they will pay it to the bank (teacher); if they gained revenue from an investment, the bank (teacher) will pay them.

All teams have to pay \$75 each year to help support their government.





# The Permanent Fund: A Renewable Financial Resource

## Example Worksheet:

INVESTMENT TYPE	INVESTMENT AMOUNT	MARKET REPORT (gained or lost%)	VALUE OF ACCOUNT AFTER MARKET REPORT
Bonds	\$400	3%	$400 \times 0.03 = 12$ $400 + 12 = 412$
Stocks	\$200	-5%	$200 \times 0.05 = 10$ $200 - 10 = 190$
Real Estate	\$600	10%	$600 \times 0.10 = 60$ $600 + 60 = 660$
Savings (Cash)	\$300	N/A	\$300
<b>Initial</b>	<b>\$1,500</b>	<b>Total</b>	<b>\$1,562</b>

For year 2, each team can change their investments, and every team receives \$5 from their government for oil royalties that can be invested in whichever assets they would like. The game should be played for 5 years with each team receiving \$5 in royalty payments at the beginning of each year and paying \$75 to support their government at the end of each year. At the end of the round, students calculate their revenue gained or lost in the same manner as above.

After the 5th year, each team should count their money to see which generated the most investment earnings.

### Generalize:

Discuss with the students how the Alaska Permanent Fund, through prudent investment, transforms a portion of Alaska's non-renewable resources into a renewable financial resource. The goal is to make sure the Principal is maintained, that the Fund is invested to achieve the maximum returns possible – with as little risk as possible, and generate consistent revenues to support Alaskans today while ensuring that it can also benefit future generations.

Watch the video "[Alaska's Renewable Revenue: Diversification](#)"





# The Permanent Fund: A Renewable Financial Resource

## **Assess:**

Can students explain how through investment, the Permanent Fund transformed Alaska's nonrenewable resources into a renewable financial resource to benefit current and future generations of Alaskans?

## **Extensions, adaptations, and more resources:**

Have students research and present how much money the Permanent Fund contributes to Alaska every year. How many people work to manage the Permanent Fund and what types of investments they make? Discuss how oil revenues (price and production) affect the state's revenue stream, and how the role of the Permanent Fund has evolved over the years to support the state and all Alaskans.







# The Permanent Fund: A Renewable Financial Resource

## 5-Year Report Tracking

### Example Worksheet:

<b>INVESTMENT TYPE</b>	<b>INVESTMENT AMOUNT</b>	<b>MARKET REPORT (gained or lost%)</b>	<b>AMOUNT GAINED OR LOST</b>	<b>VALUE OF ACCOUNT AFTER MARKET REPORT</b>
Bonds	\$400	+3%	$\$400 \times 0.03 = 12$	$400 + 12 = 412$
Stocks	\$200	-5%	$\$200 \times 0.05 = \$10$	$200 - 10 = 190$
Real Estate	\$600	+10%	$\$600 \times 0.10 = \$60$	$600 + 60 = 660$
Savings	\$300	N/A	N/A	\$300
			TOTAL	\$1,562





# The Permanent Fund: A Renewable Financial Resource

## 5-Year Report Tracking

Year 1:

INVESTMENT TYPE	INVESTMENT AMOUNT	MARKET REPORT (gained or lost%)	AMOUNT GAINED OR LOST	VALUE OF ACCOUNT AFTER MARKET REPORT
Bonds	\$			
Stocks	\$			
Real Estate	\$			
Savings	\$	N/A	N/A	
			TOTAL	





# The Permanent Fund: A Renewable Financial Resource

## 5-Year Report Tracking

**Year 2:**

<b>INVESTMENT TYPE</b>	<b>INVESTMENT AMOUNT</b>	<b>MARKET REPORT (gained or lost%)</b>	<b>AMOUNT GAINED OR LOST</b>	<b>VALUE OF ACCOUNT AFTER MARKET REPORT</b>
Bonds	\$			
Stocks	\$			
Real Estate	\$			
Savings	\$	N/A	N/A	
			TOTAL	

**Year 3:**

<b>INVESTMENT TYPE</b>	<b>INVESTMENT AMOUNT</b>	<b>MARKET REPORT (gained or lost%)</b>	<b>AMOUNT GAINED OR LOST</b>	<b>VALUE OF ACCOUNT AFTER MARKET REPORT</b>
Bonds	\$			
Stocks	\$			
Real Estate	\$			
Savings	\$			
			TOTAL	





# The Permanent Fund: A Renewable Financial Resource

## 5-Year Report Tracking

Year 4:

INVESTMENT TYPE	INVESTMENT AMOUNT	MARKET REPORT (gained or lost%)	AMOUNT GAINED OR LOST	VALUE OF ACCOUNT AFTER MARKET REPORT
Bonds	\$			
Stocks	\$			
Real Estate	\$			
Savings	\$	N/A	N/A	
			TOTAL	

Year 5:

INVESTMENT TYPE	INVESTMENT AMOUNT	MARKET REPORT (gained or lost%)	AMOUNT GAINED OR LOST	VALUE OF ACCOUNT AFTER MARKET REPORT
Bonds	\$			
Stocks	\$			
Real Estate	\$			
Savings	\$			
			TOTAL	





# The Permanent Fund: A Renewable Financial Resource

## Market Cards (front)

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
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MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD





# The Permanent Fund: A Renewable Financial Resource

## Market Cards (back)

ANNUAL MARKET REPORT

Stocks: down 5%  
Bonds: down 3%  
Real Estate: down 10%

ANNUAL MARKET REPORT

Stocks: down 15%  
Bonds: down 4%  
Real Estate: down 5%

ANNUAL MARKET REPORT

Stocks: down 10%  
Bonds: down 2%  
Real Estate: down 2%

ANNUAL MARKET REPORT

Stocks: down 10%  
Bonds: down 3%  
Real Estate: up 5%

ANNUAL MARKET REPORT

Stocks: up 5%  
Bonds: down 3%  
Real Estate: up 2%

ANNUAL MARKET REPORT

Stocks: up 5%  
Bonds: up 2%  
Real Estate: up 2%

ANNUAL MARKET REPORT

Stocks: down 10%  
Bonds: up 3%  
Real Estate: down 5%

ANNUAL MARKET REPORT

Stocks: up 10%  
Bonds: down 3%  
Real Estate: down 5%

ANNUAL MARKET REPORT

Stocks: up 15%  
Bonds: down 5%  
Real Estate: up 10%

ANNUAL MARKET REPORT

Stocks: down 15%  
Bonds: up 2%  
Real Estate: down 5%

ANNUAL MARKET REPORT

Stocks: up 5%  
Bonds: up 3%  
Real Estate: up 5%

ANNUAL MARKET REPORT

Stocks: up 5%  
Bonds: up 3%  
Real Estate: up 5%





# The Permanent Fund: A Renewable Financial Resource

## Market Cards (front)

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD

MARKET  
CARD





# The Permanent Fund: A Renewable Financial Resource

## Market Cards (back)

ANNUAL MARKET REPORT

Stocks: up 5%  
Bonds: down 2%  
Real Estate: down 1%

ANNUAL MARKET REPORT

Stocks: down 5%  
Bonds: down 2%  
Real Estate: up 5%

ANNUAL MARKET REPORT

Stocks: down 10%  
Bonds: up 3%  
Real Estate: down 5%

ANNUAL MARKET REPORT

Stocks: up 105%  
Bonds: up 3%  
Real Estate: down 10%

ANNUAL MARKET REPORT

Stocks: down 10%  
Bonds: up 4%  
Real Estate: up 10%

ANNUAL MARKET REPORT

Stocks: up 15%  
Bonds: down 2%  
Real Estate: up 5%

ANNUAL MARKET REPORT

Stocks: down 5%  
Bonds: up 3%  
Real Estate: down 1%

ANNUAL MARKET REPORT

Stocks: down 10%  
Bonds: up 3%  
Real Estate: up 5%







# Fund Management Simulation Game

**Essential Question:** How can a financial resource become renewable?

**Grade:**

9-12

**Time:**

One class period

**Overview:**

Students will role play management of the Permanent Fund and help make sure it is able to benefit Alaskans today and in the future, equally.

**Assessment:**

Can students:

- Demonstrate the importance of compromise and long-term planning?
- Explain the concept of the POMV rule and why it was enacted?
- Describe the Corporate and Legislative roles and responsibilities concerning the spending of the Permanent Fund

The student should be able to define and give an investment example of a stock, bond, and real estate. Students should be able to explain rudimentary savings accounts

**Vocabulary:**

Corporation, Legislature, Compromise, Appropriation, Constitution, Statute, Spending, Percent of Market Value (POMV) Savings

## TEACHER INFORMATION AND PROCEDURE

**Prior knowledge for students:**

- Students should have a basic understanding of what the Permanent Fund is, why, and how it came into existence.
- Students should have a working understanding of how the Alaska Permanent Fund is structured.
- Students should understand APFC's role in managing the Alaska Permanent Fund.
- Students should comprehend how APFC makes money for Alaska.

**Materials needed:**

- Class set of budget items (one per group, laminate optional)

**What to do in advance:**

- Review APFC videos, found here: <https://tinyurl.com/AKrenewableresource>
- Complete the previous two lessons in the workbook: Create-a-State and The Permanent Fund: A Renewable Financial Resource





# Fund Management Simulation Game

## TEACHING THE LESSON

### Gear up:

Begin with a brief discussion and overview of the history and significance of the Permanent Fund for the State of Alaska. Overview how money flows into the Fund and how it is invested (review the prior two lessons).

Students will engage in a role-playing activity to simulate how the Permanent Fund is managed to be a sustainable financial resource. Tell students that their school has a reserve savings account started by students years before them that they can use, and it is also invested to keep growing as time goes on. The account was created to ensure that the money in the account would help current students and all students in future years, but the current student council can always spend from the account as they see fit. Investments do well in some years, and not as well in others, but overall the balance of the account goes up 5% each year.

Tell the students that today, the account sits at \$100,000.

Brainstorm a list of student/school needs that the money could be spent on with the entire class. Divide the list into “needs today” (i.e. prom, yearbook) and “future needs” (i.e. new textbooks, new technology, supplies, etc.). Students will be placed in 5-6 groups, depending on class size. They represent the student body. In groups, students have 5-10 minutes to decide on a proposed yearly spending budget. They will be provided a “menu” of current and future needs with associated costs to help them decide on a budget. Note that they will build the yearly budget based on current needs only, but they can use the future need items as justification for the amount they do NOT spend. One representative from each group will share their ideas with the rest of the class.

After hearing all of the proposals, remind students that the savings account has \$100,000 this year, and normally grows at 5% per year. This means that if nothing is spent, it will have \$105,000 in year 1, and because of the power of compound interest it would have \$162,889 by year 10, \$265,330 by year 20, and \$432,194 by year 30. Each group must figure out how many years their reserve savings account will last if the student body spent their proposed budget year after year. Discuss as a whole group: are the budgets they came up with sustainable? Is it fair for the future generation of students?

Tell the students they will get back in their groups again, except this time instead of coming up with a budget proposal, they will come up with a proposed rule for spending each year (e.g. the current student body may only spend 5% of the reserve account each year, except every 5th year 10% may be spent on any major upgrades/purchases). Their rule must consider both the short-term and long-term needs of the student body – while also remembering the fact that the fund only grows at about 5% per year. This time, they are vying to be chosen for student council, and will present their ideas out to the class and teacher. The teacher will listen to all presentations and decide on which group’s spending rule is the most viable and financially sound, picking a winning group to sit on the student council. They must be able to show mathematically that their spending rule is sustainable (i.e. makes the money reserve last at least 2 years beyond the first round).

Additionally, students may propose ideas about ways to increase the amount of money in the reserve account through fundraising and sponsorships, so that a bigger yearly spending budget can be maintained. This can be included in their presentations as justification for their spending budget rule.





# Fund Management Simulation Game

## Generalize:

Ask the students:

- How difficult was it to think about future generations of students to ensure the reserve savings account didn't run out?
- Is it the responsibility of current generations to take care of future generations financially?
- Even if the current generation makes a recommendation to sustainable spending, is it realistic to assume all future generations might follow suit? Why or why not?

Relate the game to how the Alaska Permanent Fund Corporation (APFC) manages the Permanent Fund. Long supported by the APFC Board of Trustees, the Legislature adopted a Percent of Market Value (POMV) rule to guide withdrawals from the Permanent Fund. This formula is designed to give the state a predictable revenue stream while ensuring sustainability by limiting the amount of the draws.

The POMV draw is based on a percentage of the average market value of the Fund for the first five of the preceding six fiscal years. The draw is subject to appropriation and is set in statute at 5%.

## Assess:

Can students:

- Demonstrate the importance of compromise and long-term planning?
- Explain the concept of the POMV rule and why it was enacted?
- Describe the Corporate and Legislative roles and responsibilities concerning the spending of the Permanent Fund?

## Extensions, adaptations, and more resources:

- Have students play the game for multiple "years" and change the investment growth percentage each year.
- Explore current issues in the state legislature regarding the POMV and others that pertain to Permanent Fund and create discussion.
- Compare and contrast state governments and have students present on their findings. <https://akleg.gov/>





# Fund Management Simulation Game

## School Budget Menu

Reminder: Your budget currently sits at \$100,000, and grows at roughly 5% interest each year.

### CURRENT/YEARLY NEEDS

Prom	\$5,000
Other Dances*	\$2,500
Yearbook	\$2,000
Sports teams and club travel**	\$7,000
Basic classroom supplies and upgrades	\$3,000
Pep rallies & other in-school events*	\$2,500
Individual club fund requests**	\$2,500
School trip to Hawaii	\$25,000

### FUTURE NEEDS

Many of the same needs as current students as well as larger items	
Technology upgrades	\$10,000-\$50,000
Textbooks	\$5,000
Sports team uniforms and equipment	\$10,000

\*per item

\*\*per 5 items





# Fund Management Simulation Game

## Student Council Proposed Budget

List your proposed yearly budget items here:

Line Item

Cost


Justification: In a couple sentences describe why you chose the budget you did.

With your above proposed budget, how many years will your reserve account last? Remember that it grows at 5% each year.

Year	Initial	Investment Growth	Spending	Final
1	\$100,000	$(\$100,000 \times 0.05) + 100,000 = \$105,000$		
2				
3				
4				
5				
6				
7				
8				
9				
10				





# Fund Management Simulation Game

## Proposed Budget

Example:

Year	Initial	Investment Growth	Spending	Final
1	\$100,000	$(\$100,000 \times 0.05) + 100,000 = \$105,000$	\$20,000	$\$105,000 - \$20,000 = \$85,000$
2	\$85,000	$(85,000 \times 0.05) + 85,000 = \$89,250$	\$20,000	$\$89,250 - \$20,000 = \$69,250$

Spending budget rule: In your group, come up with a spending budget rule that will be enacted for your annual budget and all would remain in effect for future years as well. The goal is to maintain the reserve savings account indefinitely, while still keeping in mind the needs of today and future students. You will present your rule and justification to the class and to the school "board" (the teachers) with the goal of becoming selected as student council representatives.

