



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 non-renewable 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, Commercial Fishing

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 cards
- Oil, fish, and mineral cards

What to do in Advance:

- Print out 1 set of Resource Generation cards
- Print out oil/fish/mineral cards (1 set of each needed per group. I.e. if you have 5 groups, you need 5 sets)
- Option to laminate all cards

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. Where does the money come from?





Create-A-State:

Explore:

In teams of 4 or 5, 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 three of their most plentiful resources: oil, minerals, and fish.

The goal of the game is for students to meet their government's annual budget demands of \$80,000 using only these resources as their revenue streams, and to make them last as long as possible. They should also consider whether these resources are enough to fully support their government.

How to play the game:

Pass out 5 oil cards, 3 mineral cards and 3 fish cards randomly to each group. Remaining cards should be sorted by type but randomized in a pile (1 pile for leftover oil, 1 for leftover fish, and 1 for leftover minerals).

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 drawing or discarding a resource card, or no action. The teacher will collect all discarded cards and pass out new cards to those who need them. The students can choose which cards they want to discard but if they are drawing a new card, it will be random.

After each team has drawn and completed their actions, all teams will pay \$80,000 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). They can use any combination of their resource cards to pay their government. Once they pay, each group gets a new fish card before they start the next round (explain that this is because fish are a renewable resource).

Year 2 – x:

Repeat the previous steps. When a team runs out of their fish cards, they no longer get a fish card replenished (they overfished the resource).

When a team can no longer pay the yearly budget using their natural resources, 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 \$80,000 (e.g. if they only have \$90,000 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 \$100,000.





Create-A-State:

Generalize

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 the type of resources available, which are non-renewable and which are renewable? How did this impact your ability to use these resources?
- What can be done to support your state when non-renewable resources no longer can?
- Is there a way to make revenue from natural resource industries (oil and mining) last longer, despite them being a non-renewable resource?

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

What might they 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 \$76 billion dollars, which has grown from the first deposit from oil revenues of \$734,000 in 1977.

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 Alaskan's today and in the future?

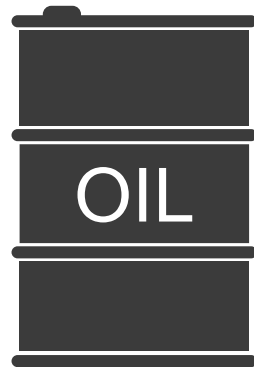
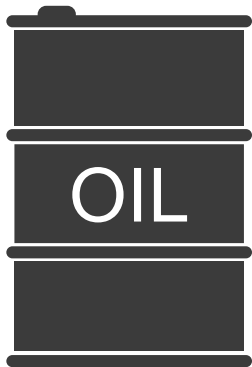
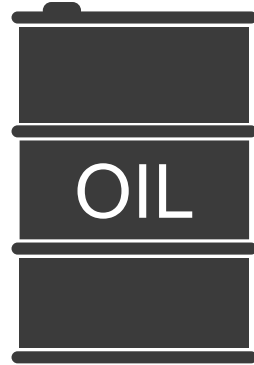
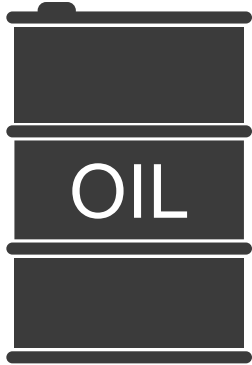
Extensions, adaptations, and more resources

- 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:

Resource Cards (front)





Create-A-State: Resource Cards (back)

**200 barrels
\$20,000**

**200 barrels
\$20,000**

**300 barrels
\$30,000**

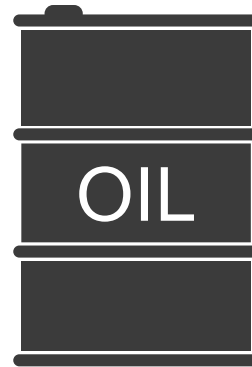
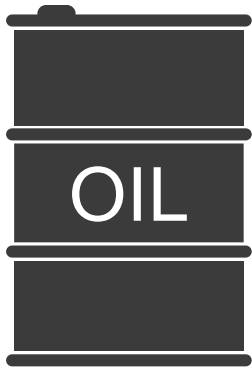
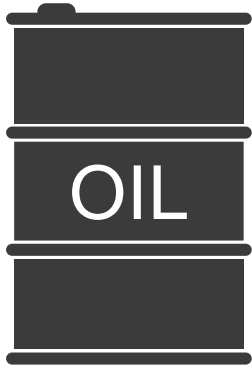
**300 barrels
\$30,000**





Create-A-State:

Resource Cards (front)





Create-A-State: Resource Cards (back)

**100 barrels
\$10,000**

**100 barrels
\$10,000**

**500 barrels
\$50,000**

**500 barrels
\$50,000**

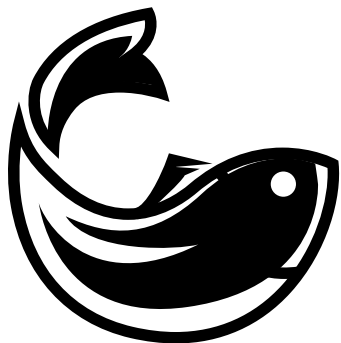




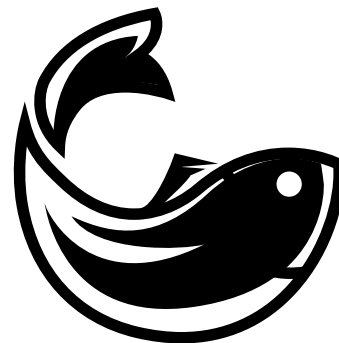
Create-A-State:

Resource Cards (front)

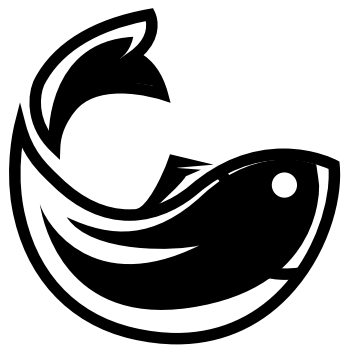
FISH



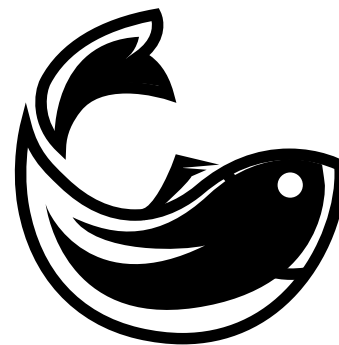
FISH



FISH



FISH





Create-A-State: Resource Cards (back)

**10 tons
\$10,000**

**10 tons
\$10,000**

**50 tons
\$50,000**

**50 tons
\$50,000**

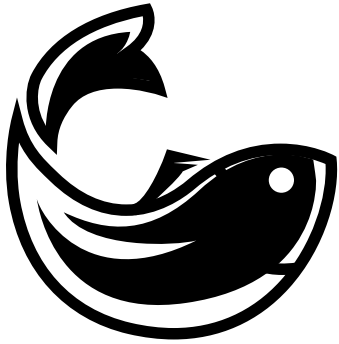




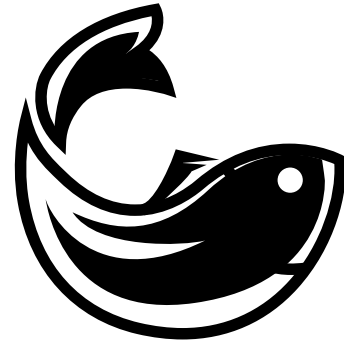
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Resource Cards (front)

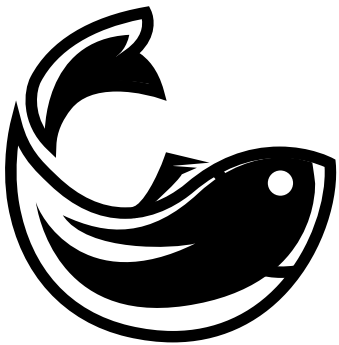
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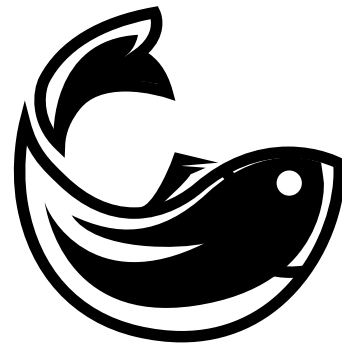
FISH



FISH



FISH





Create-A-State: Resource Cards (back)

**20 tons
\$20,000**

**20 tons
\$20,000**

**30 tons
\$30,000**

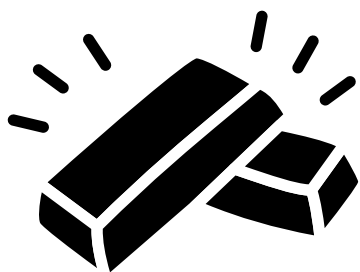
**30 tons
\$30,000**



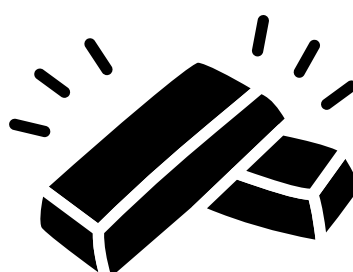


Create-A-State: Resource Cards (front)

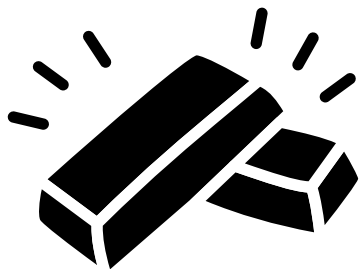
MINERALS



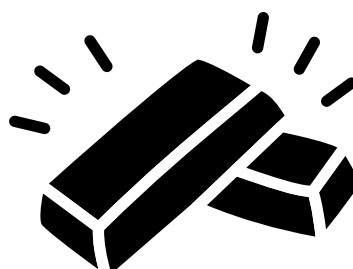
MINERALS



MINERALS



MINERALS





Create-A-State: Resource Cards (back)

**450oz Silver
\$10,000**

**450oz Silver
\$10,000**

**10oz Gold
\$20,000**

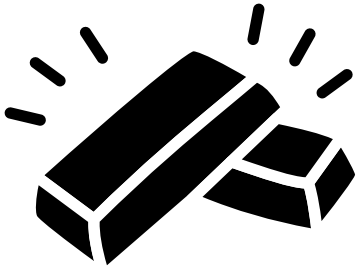
**10oz Gold
\$20,000**



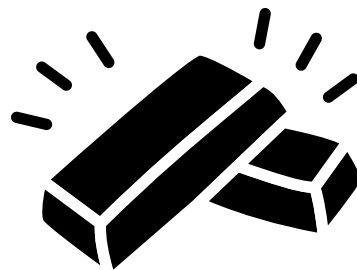


Create-A-State: Resource Cards (front)

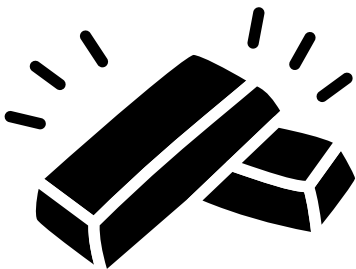
MINERALS



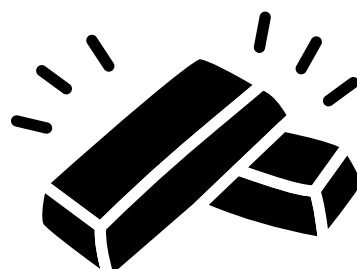
MINERALS



MINERALS



MINERALS





Create-A-State: Resource Cards (back)

**12oz Zinc
\$30,000**

**12oz Zinc
\$30,000**

**6 tons Copper
\$50,000**

**6 tons Copper
\$50,000**





Create-A-State: Resource Cards (front)

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**





Create-A-State: Resource Cards (back)

<p>An oil company in your state discovered a new oil reservoir.</p> <p>Draw 1 oil card</p>	<p>An oil company in your state had a spill.</p> <p>Discard 1 oil card</p>
<p>Oil production was good this year.</p> <p>Draw 1 oil card</p>	<p>Oil prices crash!</p> <p>Discard 2 oil card</p>





Create-A-State: Resource Cards (front)

<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>
<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>





Create-A-State: Resource Cards (back)

New land was opened up for oil exploration.

Draw 1 oil card

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

Discard 1 oil card

Frozen pipes halt oil production for a few days.

Discard 1 oil card

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

Draw 1 oil card





Create-A-State: Resource Cards (front)

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**





Create-A-State: Resource Cards (back)

<p>Oil prices are stable.</p> <p>No action</p>	<p>War breaks out and the U.S. can't trade for oil, so Alaska must drill for more oil.</p> <p>Draw 1 oil card</p>
<p>An environmental group protests your project. All project progress is halted.</p> <p>Discard 1 oil card</p>	<p>Normal oil production year.</p> <p>No action</p>





Create-A-State: Resource Cards (front)

<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>
<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>





Create-A-State: Resource Cards (back)

**There was a great run
of salmon this year!**

Draw 2 fish cards

**The fishing industry
could not find enough
employees to fish.**

Discard 1 fish card

**A warming climate
decreases fish
populations.**

Discard 1 fish card

**An invasive fish
species starts to
impact Alaska
fish runs.**

Discard 1 fish card





Create-A-State: Resource Cards (front)

<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>
<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>





Create-A-State: Resource Cards (back)

<p>Gas prices go down and fishing is less expensive.</p> <p>Draw 1 fish card</p>	<p>Commercial fishing is business as usual.</p> <p>No action</p>
<p>A restoration project helped fish spawning habitats.</p> <p>Draw 1 fish card</p>	<p>Upgrades to commercial fishing boats increased production.</p> <p>Draw 1 fish card</p>





Create-A-State:

Resource Cards (front)

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**





Create-A-State: Resource Cards (back)

<p>Gas prices go up, and fishing is more expensive.</p> <p>Discard 1 fish card</p>	<p>The local community is worried your commercial fishing is hurting their fishing.</p> <p>Discard 1 fish card</p>
<p>Fishing is stable.</p> <p>No action</p>	<p>The weather was nice, you were able to fish more days.</p> <p>Draw 1 fish card</p>





Create-A-State:

Resource Cards (front)

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**

**RESOURCE
GENERATION**





Create-A-State: Resource Cards (back)

<p>Mineral production is excellent.</p> <p>Draw 2 mineral cards</p>	<p>One of your large mines came to the end of its mine life.</p> <p>Discard 2 mineral cards</p>
<p>A new mineral deposit was discovered by an exploration company.</p> <p>Draw 1 mineral card</p>	<p>An exploration mine got several of its permits denied.</p> <p>Discard 1 mineral card</p>





Create-A-State: Resource Cards (front)

<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>
<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>





Create-A-State: Resource Cards (back)

Good production year for your mining industry.

Draw 1 mineral card

An advanced exploration mining project got its permits accepted.

Draw 1 mineral card

An increased production of renewal energy technology creates demand for mineral commodities.

Draw 1 mineral card

A large deposit of a rare earth metal discovered in your state leads to increased industry activity.

Draw 1 mineral card





Create-A-State: Resource Cards (front)

<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>
<p>RESOURCE GENERATION</p>	<p>RESOURCE GENERATION</p>





Create-A-State: Resource Cards (back)

An environmental group protests your project. All project progress is halted.

Discard 1 mineral card

An advanced exploration mining project got its permits denied.

Discard 1 mineral card

Mineral prices dropped and companies had to let employees go.

Discard 1 mineral card

One of your mining companies gets a fine for being out of compliance.

Discard 1 mineral card

