

Organization Credit

Opening Credit for University of Idaho

The logo for the University of Idaho Extension. It features the text "University of Idaho" in a bold, brown, sans-serif font, with "of" in a smaller, italicized font between "University" and "Idaho". Below this, the word "Extension" is written in a grey, sans-serif font.

University of Idaho
Extension

Organization Credit

Specific organizational credits.

University of Idaho
Extension

Department of Agricultural Economics
and Rural Sociology



Title Screen

Welcome to the Dollar Game!



Game Learning Objectives

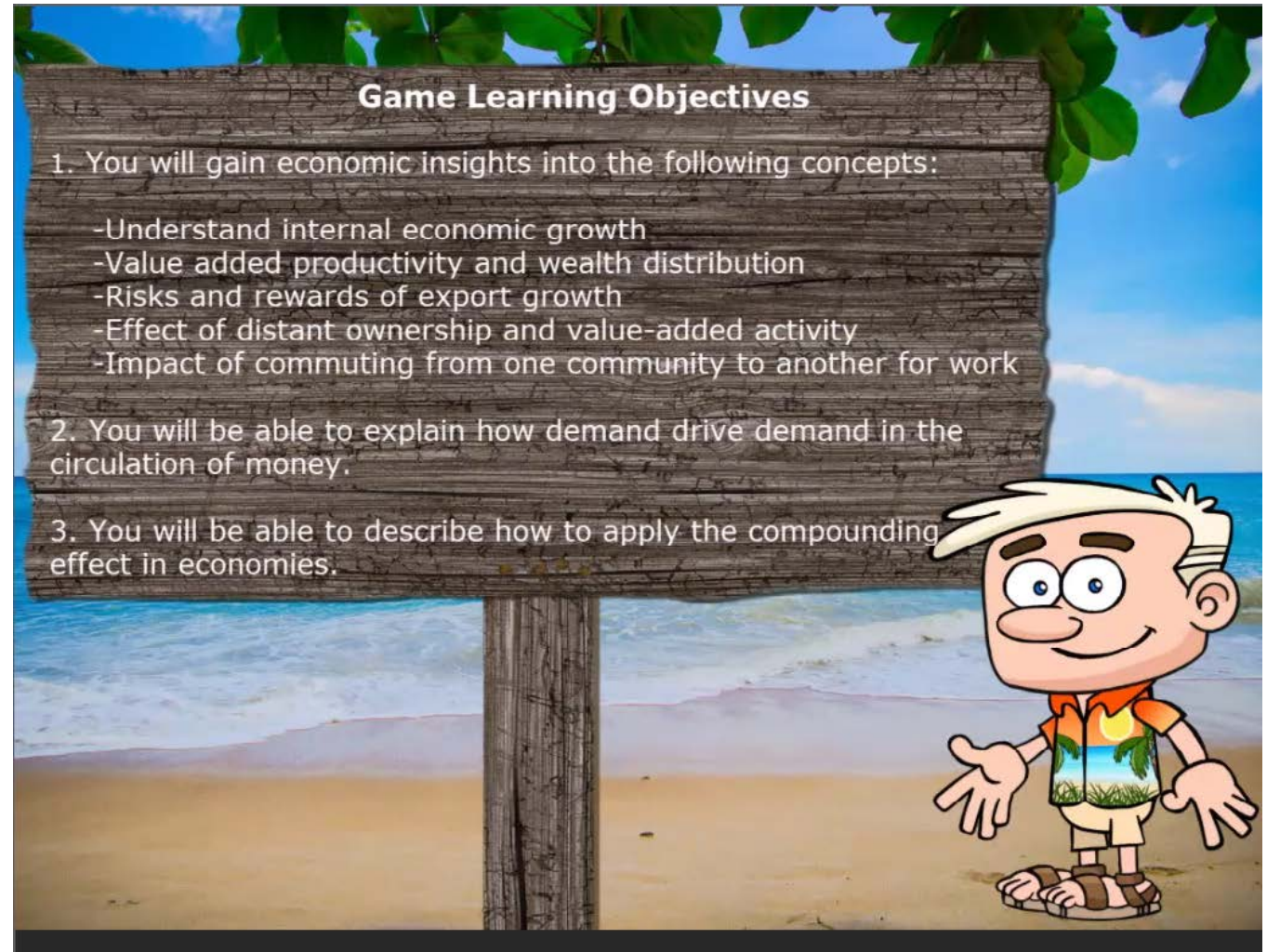
1. You will gain economic insights into the following concepts:

- Understand internal economic growth
- Value added productivity and wealth distribution
- Risks and rewards of export growth
- Effect of distant ownership and value-added activity
- Impact of commuting from one community to another for work

2. You will be able to explain how demand drives demand in the circulation of money.

3. You will be able to describe how to apply the compounding effect in economies

4. You will be able to describe how innovation and export increase prosperity.



Game Scenario Intro

Welcome to Prosperity Island! Our island is currently a closed economic system. We are a small community cut off from the rest of the world. No planes, no boats or drones to bring deliveries from the rest of the world. How do we prosper and grow? There are no tax incentives to entice companies from elsewhere to relocate to our island and “bring jobs.” No attracting more tourists to save the day for our local retail. It is just us. So how does an economy grow from within? Or don’t we need to worry about that?

Our main crop on the island is **whole coconuts**. We grow them on the island fields and use a local labor provider to harvest the coconuts. The coconuts are then transported to the processing center who cleans and processes the coconuts for market. Once the processing center sorts and cleans them, we sell them in our community Co-op Store. The yearly demand of our product fluctuates with the wealth of the community.



Game Instructions

In each round you will have a task list to complete. Once your tasks are accomplished you will need to check with the Bank to see how your island economy is doing. You will then attend a community meeting of providers to discuss status of the local economy.

On the bottom of the screen you will see two buttons labelled “Task List” and “Bank”. Visit the Task list to complete your tasks for each round. Visit the Bank at any time to see the status of your economy.



Player Role Intro

Your role is the Director of the Prosperity Island Co-op. Your job is to coordinate the Labor, Materials and Processing of the product needed for the Co-op Store.

The yearly demand of our product fluctuates with the wealth of the community.

Each whole coconut requires two inputs, labor and materials.

Here is the cost of producing one coconut:

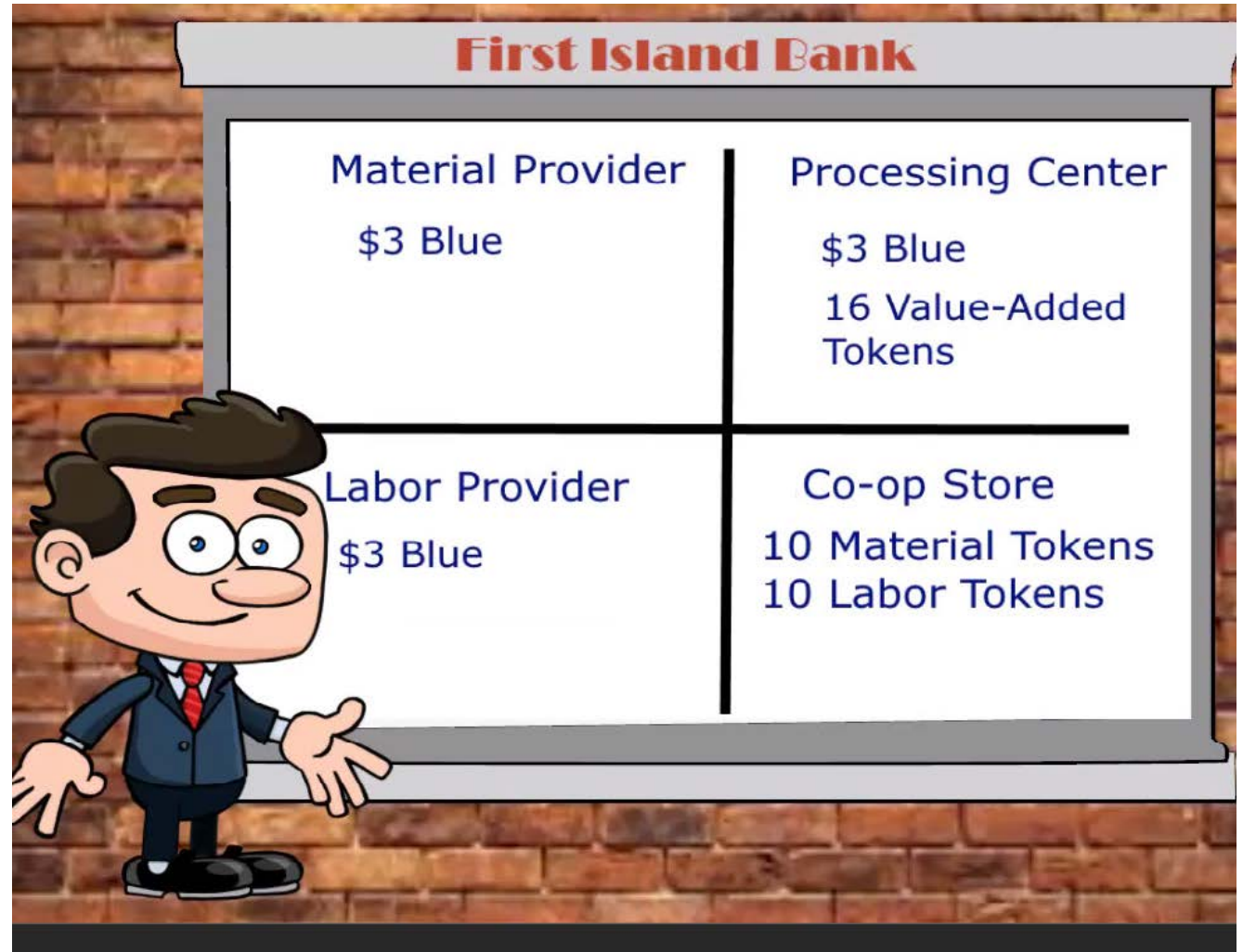
1 Coconut = 2 Labor Tokens + 1 Materials Token

Each coconut is sold for \$3 in our Co-Op Store



Round 1: Start-up Capital

Visit the Bank to see the start-up capital for the year.



The image shows a cartoon man with dark hair, wearing a blue suit, white shirt, and red tie, standing to the left of a whiteboard. The whiteboard is titled "First Island Bank" in red text at the top. The whiteboard is divided into four quadrants by a vertical and a horizontal line. The top-left quadrant lists "Material Provider" and "\$3 Blue". The top-right quadrant lists "Processing Center", "\$3 Blue", and "16 Value-Added Tokens". The bottom-left quadrant lists "Labor Provider" and "\$3 Blue". The bottom-right quadrant lists "Co-op Store", "10 Material Tokens", and "10 Labor Tokens".

First Island Bank	
Material Provider \$3 Blue	Processing Center \$3 Blue 16 Value-Added Tokens
Labor Provider \$3 Blue	Co-op Store 10 Material Tokens 10 Labor Tokens

Round 1: Steady State

Task List

1. Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.
2. Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center
3. To make products to sell at the Co-op Store:

Here is the cost of producing one coconut:

1 Coconut = 2 Labor Tokens + 1 Materials Token

4. Sell the product in the Co-op Store for \$3 a piece.



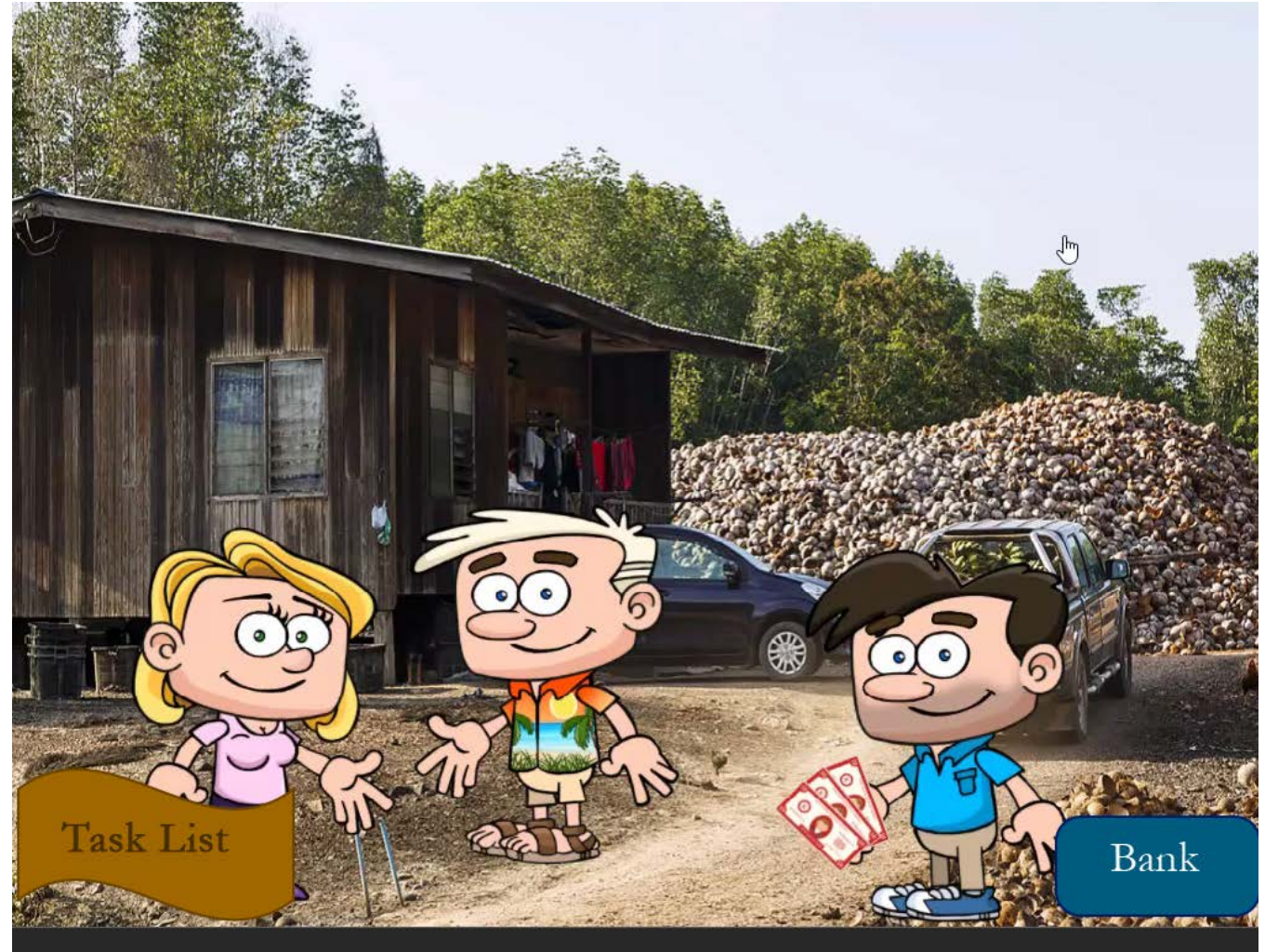
Game Task Example

- Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.



Game Task Example

- Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center



Game Task Example

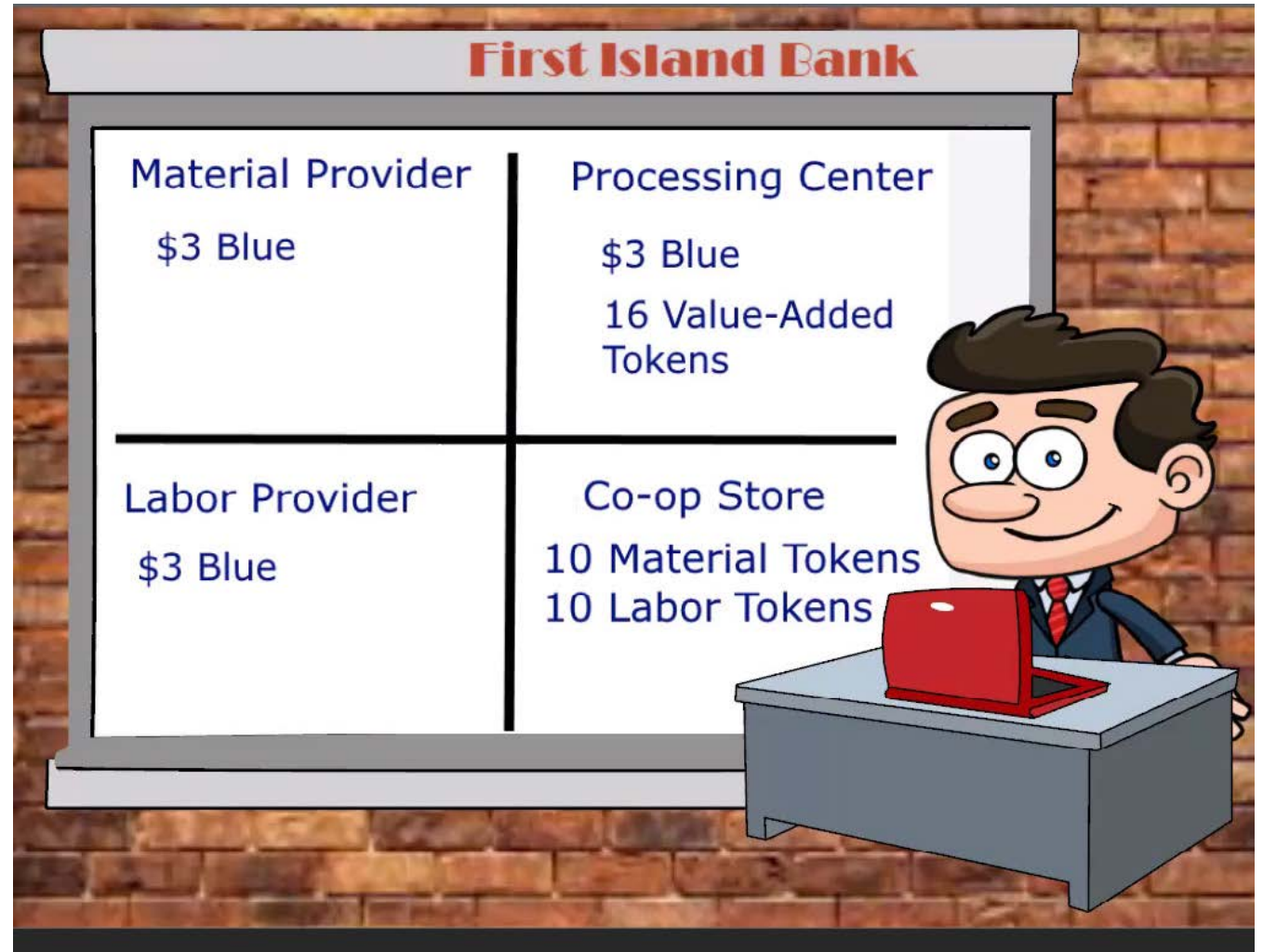
- Sell the product in the Co-op Store for \$3 a piece.

Add Spend all money you have option.



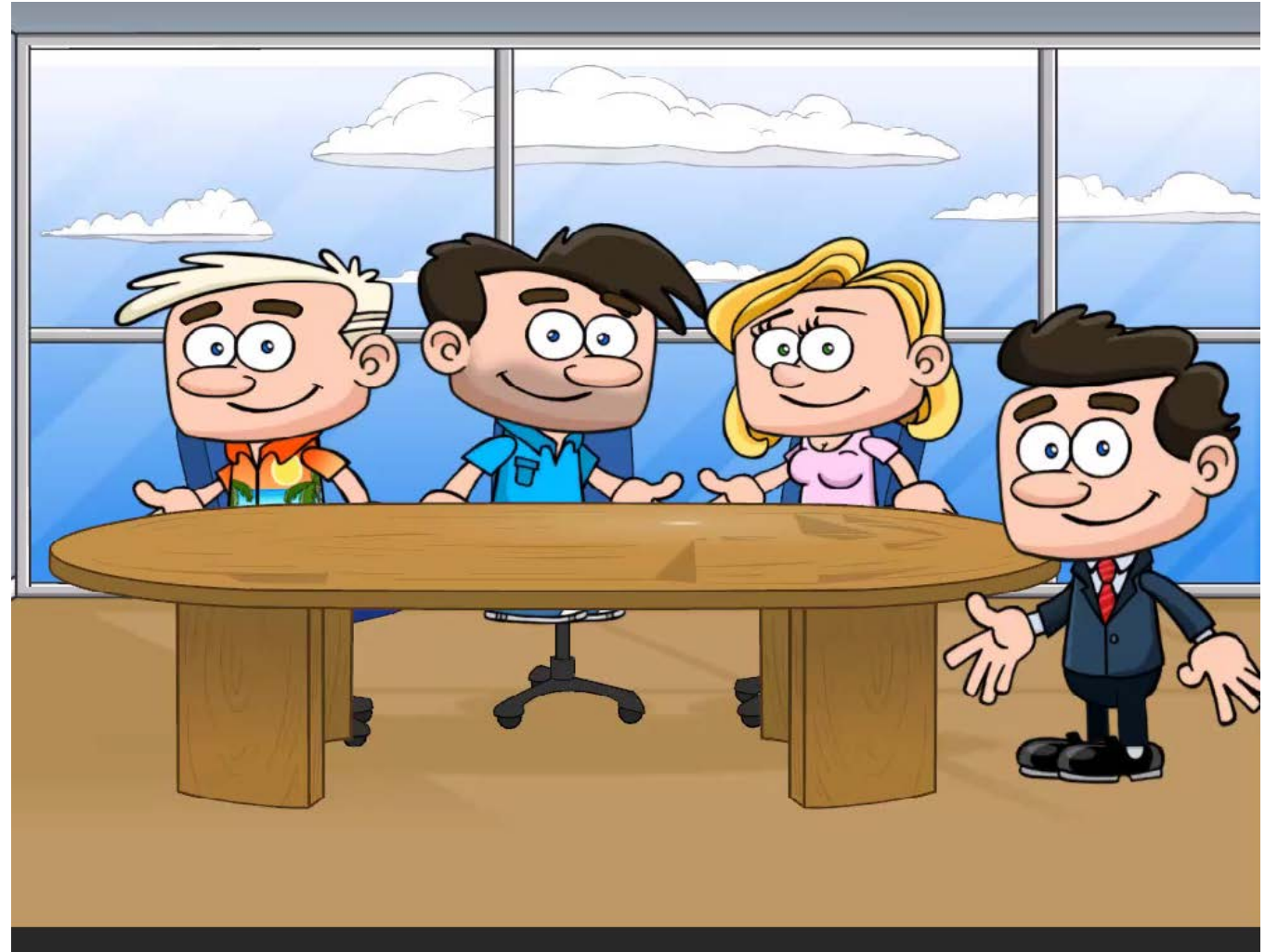
Fiscal Year End

Go to the Bank and the Bank Manager will allow you to view a tally of all Accounts. What do you notice about the state of the economy?



Community Viewpoints

How does each provider feel about their profits during the past year? Listen in to their ideas and opinions.



Knowledge Check

Reflecting on the closed economy of the Island and ask yourself:

“Can we have an economy in which we are all Scratching each other’s back?”

Correct Answer Feedback:

Great Job! In this economy “My spending is your income; your spending is my income”. But is this a good economy? A stable economy may or may not be a “good” economy.

Incorrect Answer Feedback:

Try Again! In this economy “My spending is your income; your spending is my income”. But is this a good economy? A stable economy may or may not be a “good” economy.



Knowledge Check

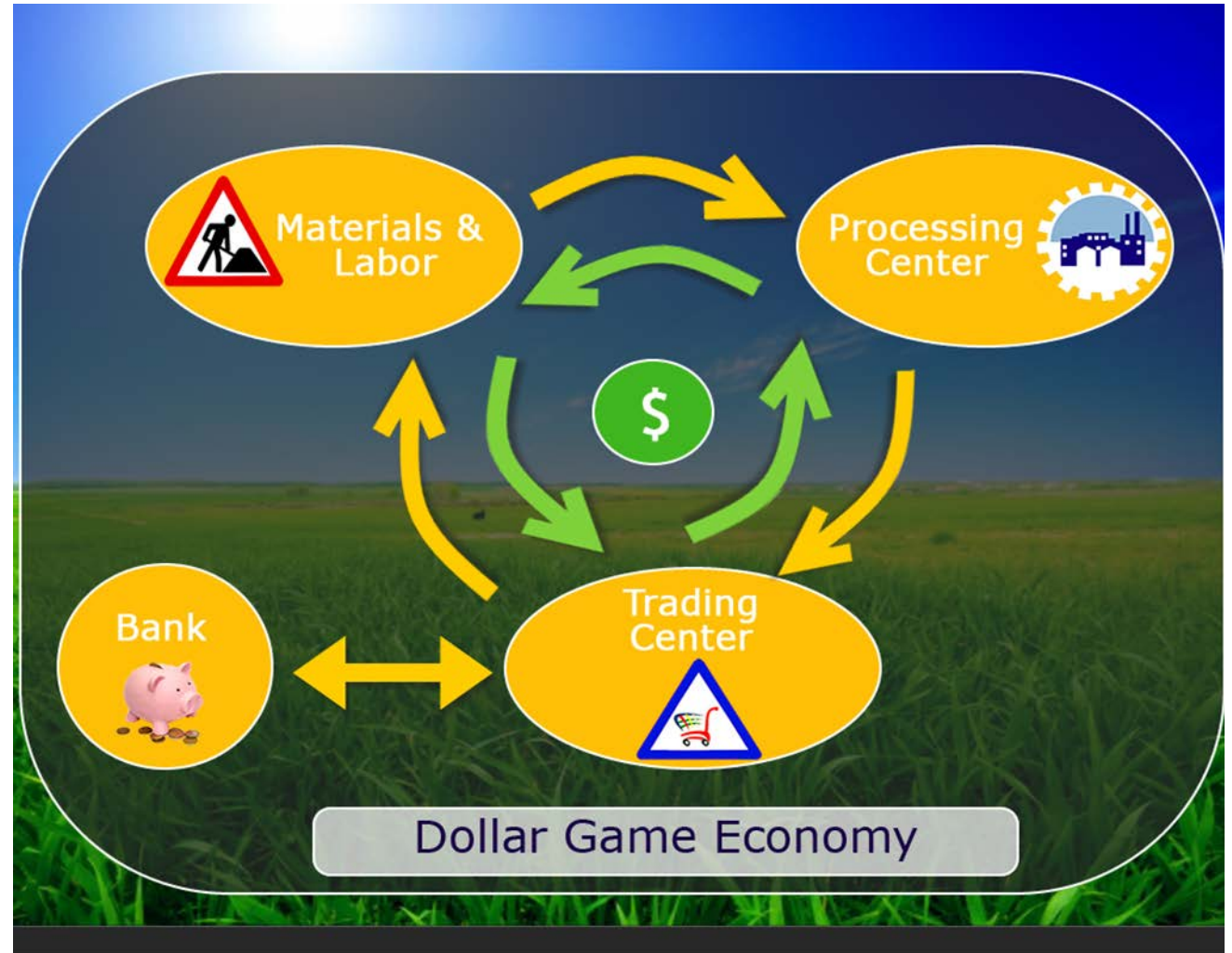
Can we have an economy in which we are all “Scratching each other’s back?”

The graphic features a dark blue rounded rectangle with a white border, set against a background of a green field and a blue sky with a sun. Inside the rectangle, the text "Knowledge Check" is written in green, and the question "Can we have an economy in which we are all 'Scratching each other's back?'" is written in white. Below the text, there are two circular icons: a green one with a white thumbs-up hand and a red one with a white thumbs-down hand.

Round-Up 1

1. Can we have an economy in which we are all “scratching each other’s back”? The answer is (a qualified) “yes.” If we look at the world economy, no money comes in or goes out and we all “scratch each other’s back.” If we zoom in we can imagine countries, or even regions, to be quite self-reliant as well.

2. So is our island economy a good economy? We simply do not know without asking community members if they are happy, or if they are hungry. Maybe the island is rocky with no fertile soil, with the only food supplied by a reef a mile out into the ocean. The economy is stable, but its residents work 18-plus hours per day to supply the bare minimum in food and shelter. Or maybe our island is a lush sub-tropical paradise where food grows on trees and residents spend 6 hours per day surfing and relaxing.



Happy New Year!

No one is making any money and it is apparent that we need to make a change. By adding **innovation** we can work smarter. In this round we will add a second-generation product to our Processing Center. Doing more with less translates into increased wealth: you either have more leisure time or time for things other than work. Our new product is **Shredded Coconut** which is expected to perform better than whole coconuts as it is easier to package and transport!

Somehow we need to account for that increase in wealth, and we do so by issuing money when we see value added to the economy.

The yearly local demand of the product is set at 3 products

Here is the new cost of producing one bag of Shredded Coconut:

**1 Bag of Shredded Coconut = 1 Labor Tokens +
1 Materials Token + 1 Value-added Token**



Round 2: Innovation

Task List

1. The Labor provider and Materials provider buys tokens from the Trading Center for \$1 each.
2. To make product, the Processing center buys labor and material tokens from the Labor and Material providers for \$1 each.
3. To sell the product, the Processing Center trades the product at the trading center for \$3.
4. The Trading Center exchanges the value-added tokens for \$1 at the Bank.



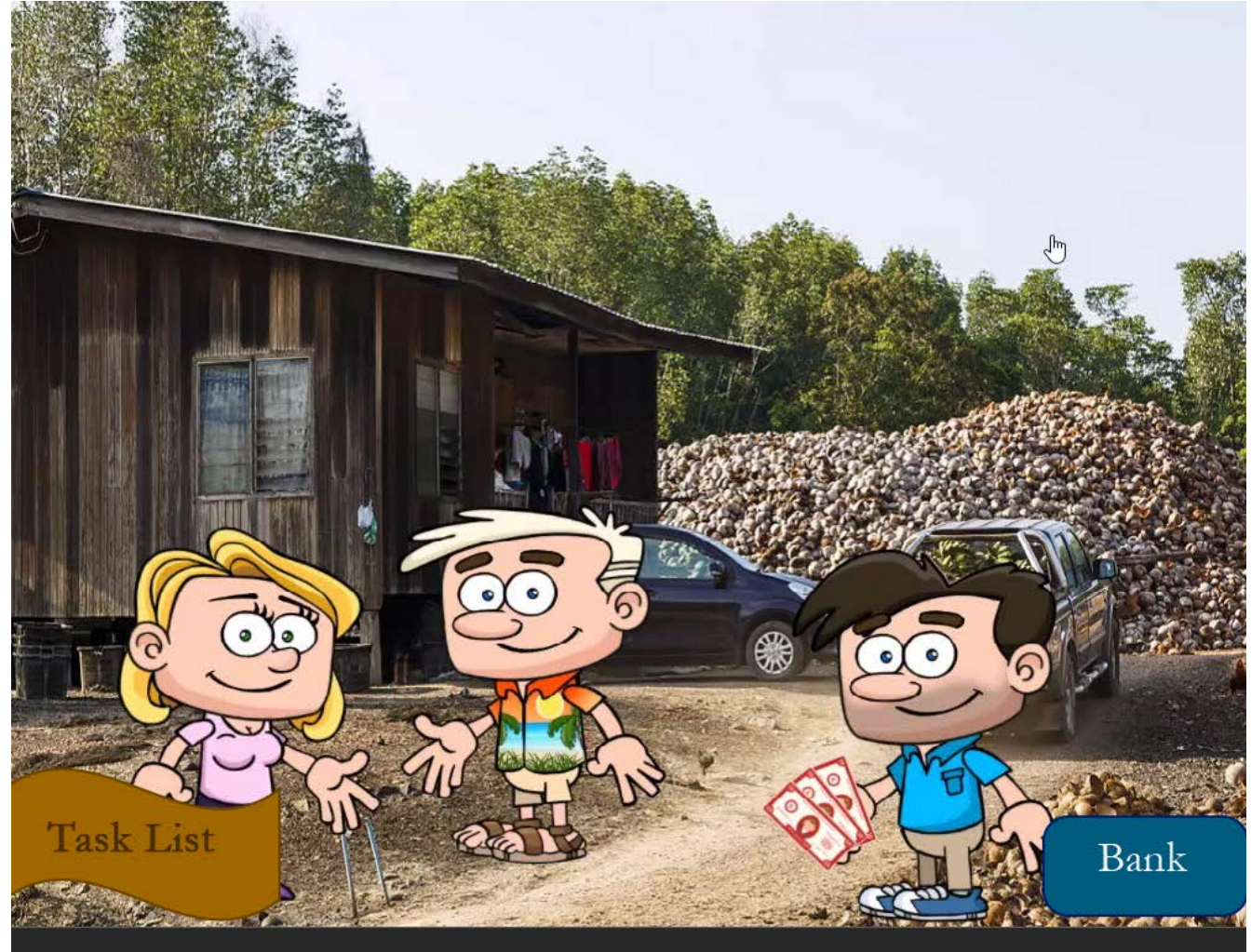
Game Task Example

- Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.



Game Task Example

- Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center



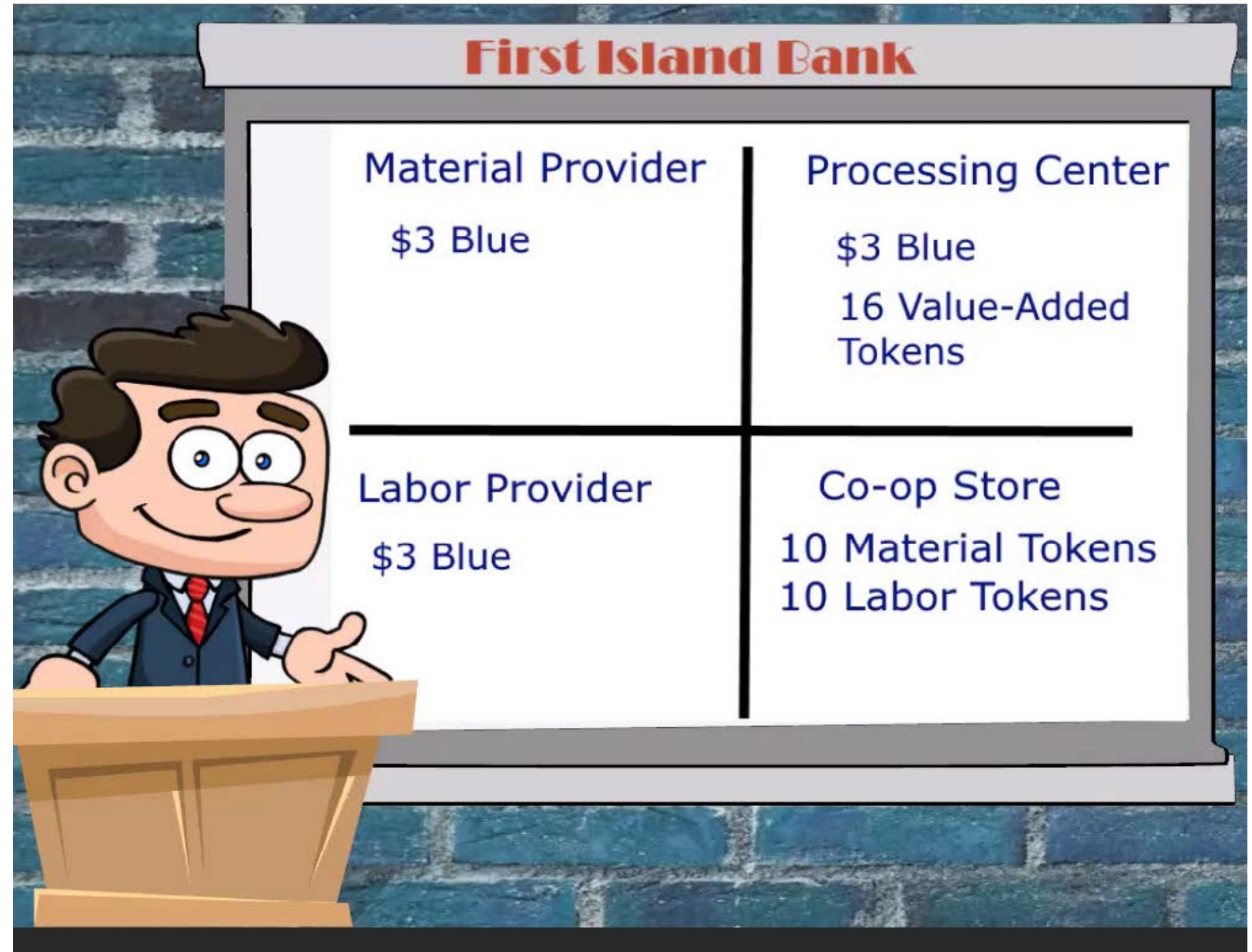
Game Task Example

- Sell the product in the Co-op Store for \$3 a piece.



Fiscal Year End

Go to the Bank and the Bank Manager will allow you to view a tally of all Accounts. What do you notice about the state of the economy?



Community Viewpoints

How does each provider feel about their profits during the past year? Listen in to their ideas and opinions.

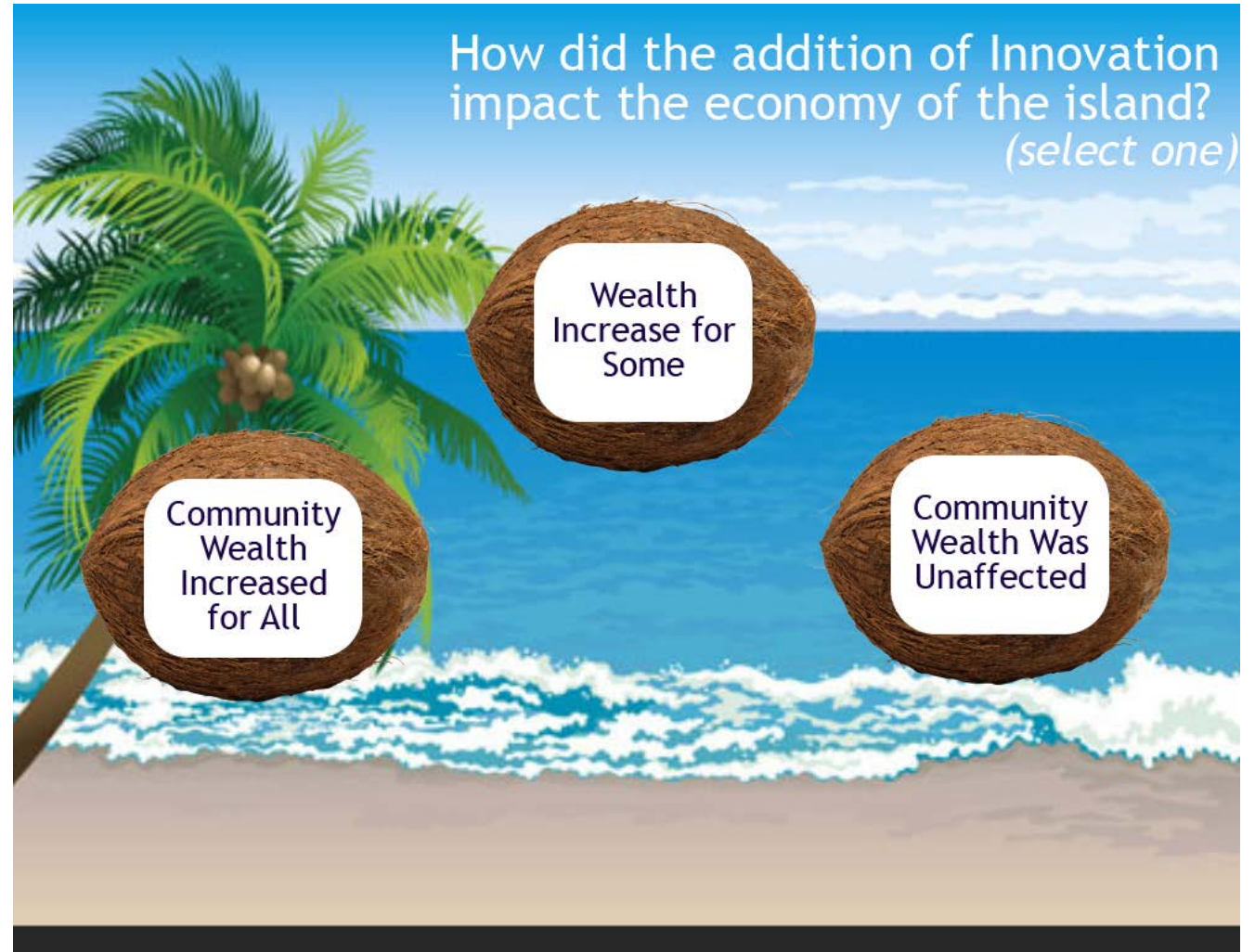


Knowledge Check

How did the addition of Innovation impact the economy of the island? (select one)

Correct Answer Feedback:

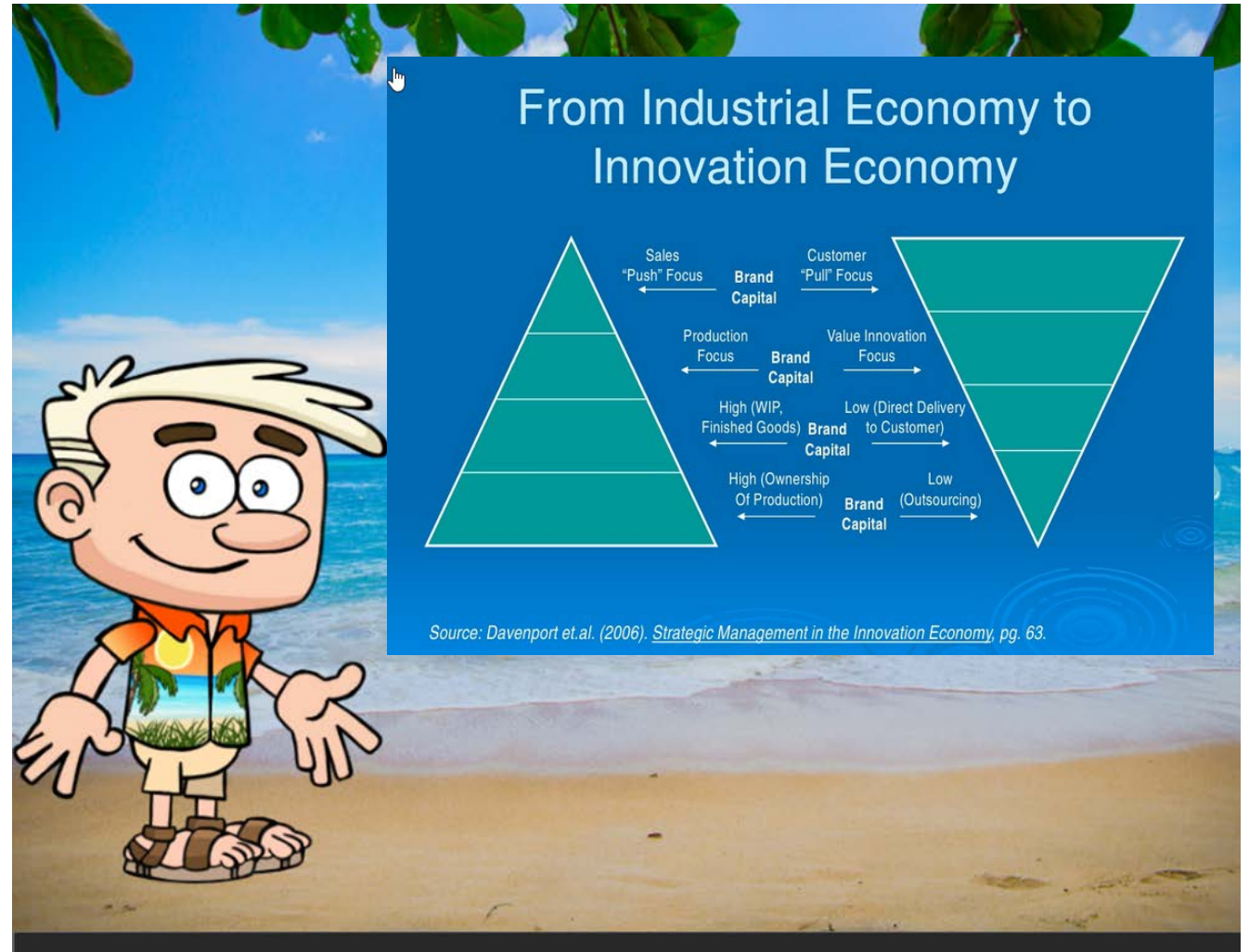
Incorrect Answer Feedback:



Round-Up 2

Recall that the Processing Center was the sole beneficiary of the wealth increase in Round 2. The scenario resembles a feudal economy with the processing facility dictating price.

Paul: we need to come up with a chart that represents the economic concept!



Happy New Year!

As the year begins, the Processing Center shares its new wealth and pays out yearly dividends to both the Labor and Materials Providers on the island.

Local demand is a function of local wealth so the Bank will estimate annual local demand by using this calculation:

$$\text{Local Demand} = \frac{\text{Wealth of Labor Provider} + \text{Wealth of Material Provider}}{2}$$

Note: Wealth includes dollars and tokens.



Round 3: Sharing the Wealth

Task List

1. At the beginning of the year the Processing Center pays a bonus to both the Labor and Materials Providers of a minimum of \$1 (the amount is at the discretion of the Processing Center).
2. The Labor and Material Providers buy tokens from the Trading Center for \$1 each.
3. The Processing Center buys tokens from the Labor and Materials Providers to make products.

Here is the new cost of producing one bag of Shredded Coconut:

1 Bag of Shredded Coconut = 1 Labor Tokens + 1 Materials Token + 1 Value-added Token

4. The Processing Center trade the product at the Trade Center for \$3.
5. The Trading Center exchanges the value-added token for \$1 at the Bank.



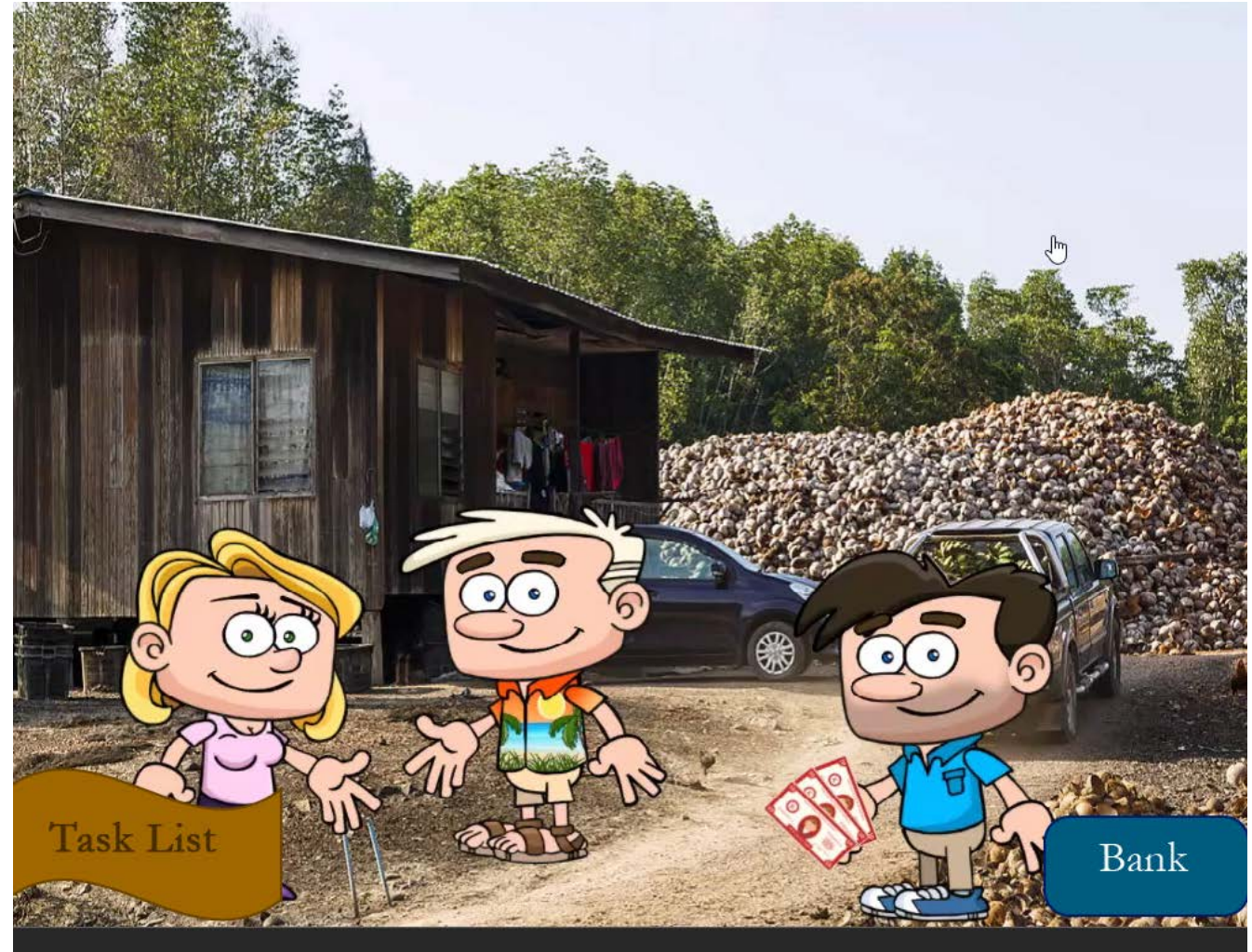
Game Task Example

- Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.



Game Task Example

- Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center



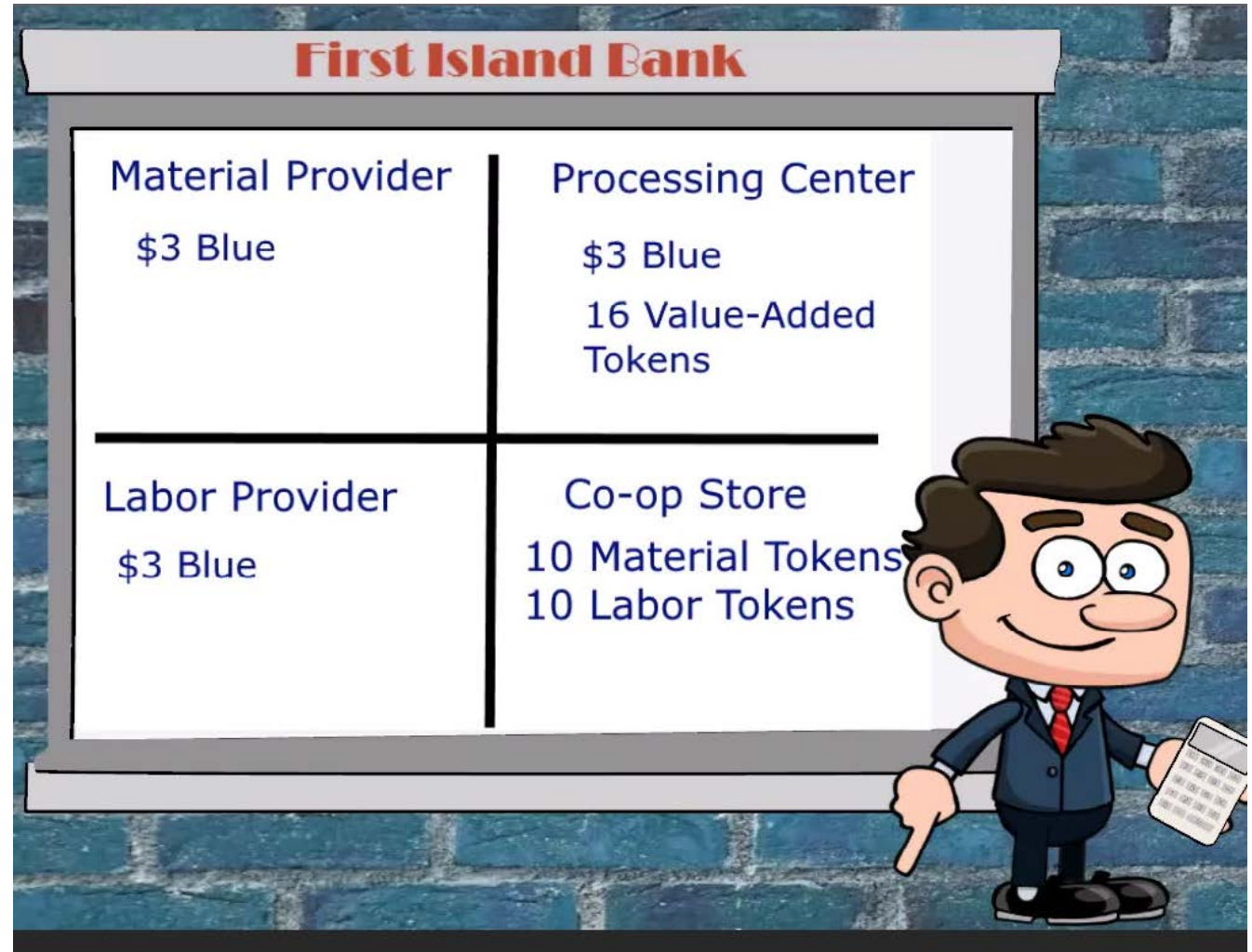
Game Task Example

- Sell the product in the Co-op Store for \$3 a piece.



Fiscal Year End

Go to the Bank and the Bank Manager will allow you to view a tally of all Accounts. What do you notice about the state of the economy?



Community Viewpoints

How does each provider feel about their profits during the past year? Listen in to their ideas and opinions.



Knowledge Check

Drag and Drop Activity to check acquired knowledge so far.

Correct Answer Feedback:

Incorrect Answer Feedback:

Knowledge Check

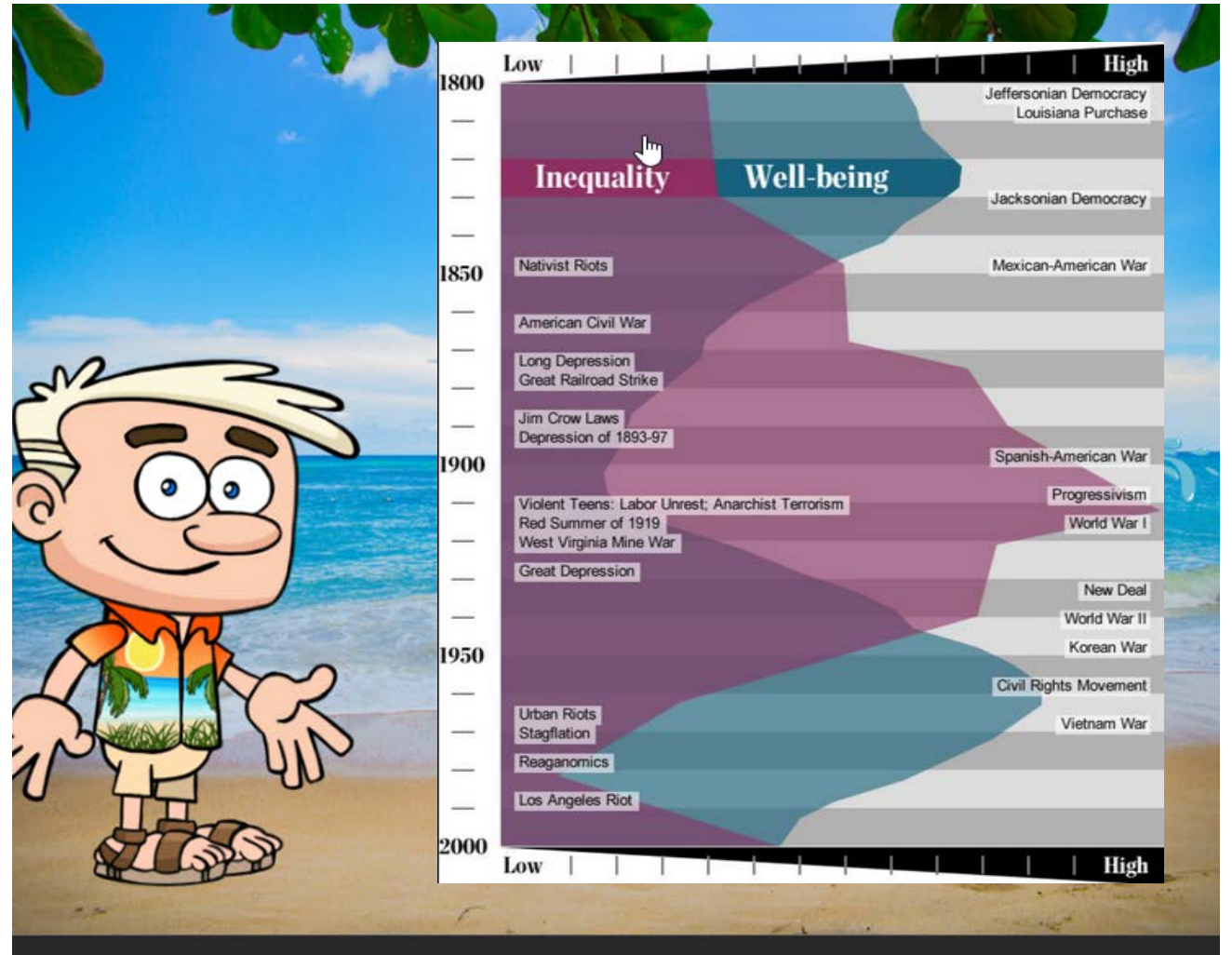
Match the Scenario with the correct characteristics by dragging and dropping the colored boxes next to the description

Steady State Economy		A self-reliant community disconnected from other economies.
Wealth Distribution		Increases productivity, adding more value with the same input, or achieving the same value with less input.
Innovation		An important issue that can limit local demand as economic growth is constrained due to unequal wealth distribution.
Closed Economy		Your spending is my income, and my spending is your income.

Submit

Round-Up 3

1. “My spending is your income and your spending is my income.” If local businesses want to sell more products, they will need a community that can afford to buy more products.
2. Labor income (employee compensation and proprietor income) is not a loss. This money is recirculated through household spending patterns, causing further economic activity. When these dollars are spent locally, the result is additional sales, employment, and income created as a result of the production and sales of locally purchased goods and services.
3. Wealth concentration limits demand and future growth. If most of the wealth is concentrated in few individuals, total demand in the economy will be less than what the economy is capable of supplying, creating underemployment and limiting new investments and job creation. Inequality limits local demand because higher-income individuals consume a smaller proportion of their income than lower-income individuals.



Happy New Year!

We are now going to transition to a modern economy, where we trade with other communities. The ability to ship goods to other islands has been established! In the coming year we can now both sell our product locally and export our product to nearby Avalon Island.

Local demand remains a function of local wealth so the Bank will estimate annual local demand by using this calculation:

$$\frac{\text{Local Demand} = \text{Wealth of Labor Provider} + \text{Wealth of Material Provider}}{2}$$

Note: Wealth includes dollars and tokens. Local annual demand must be fulfilled before any product can be exported.



Round 4: Export

Task List

1. At the beginning or end of each year, the Processing Center pays a bonus to both Labor and Materials providers (\$1 minimum; the amount is at the discretion of the Processing Center).
2. The Labor Provider and Materials Provider buy tokens from the Trading Center for \$1 each.
3. The Processing Center buys tokens from the Labor and Materials providers, making products the same way as in the previous round:

1 Bag of Shredded Coconut = 1 Labor Tokens + 1 Materials Token + 1 Value-added Token

4. The Processing Center trades the product at the Trading Center for \$3.
5. The Trading Center exchanges the value-added token at the Bank for \$1 (green bill) when the product is sold locally, but for \$1 (yellow bill) if the product is exported.

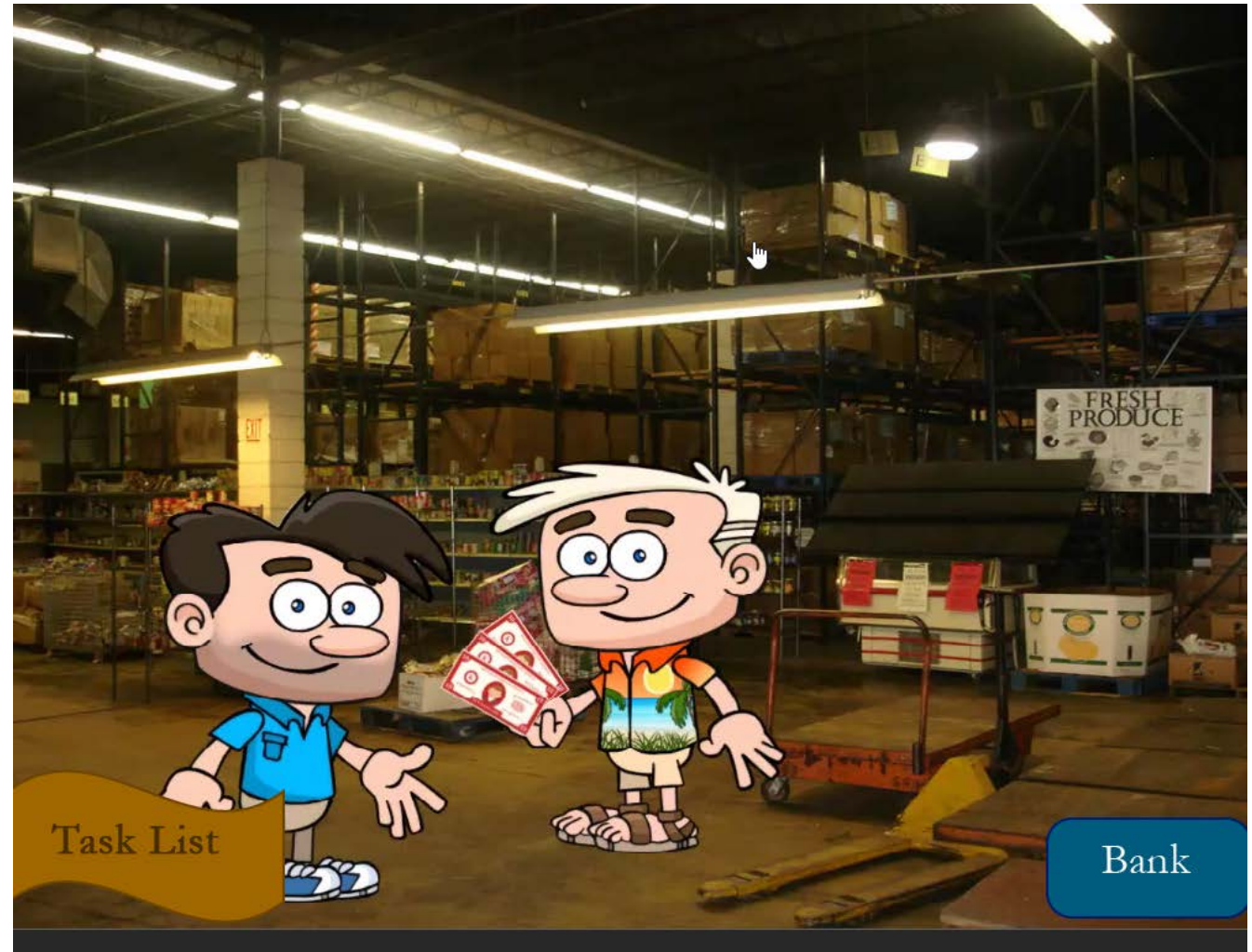
NOTE: local demand is filled first; the Bank will need to keep track of when local demand has been filled.



Game Task Example

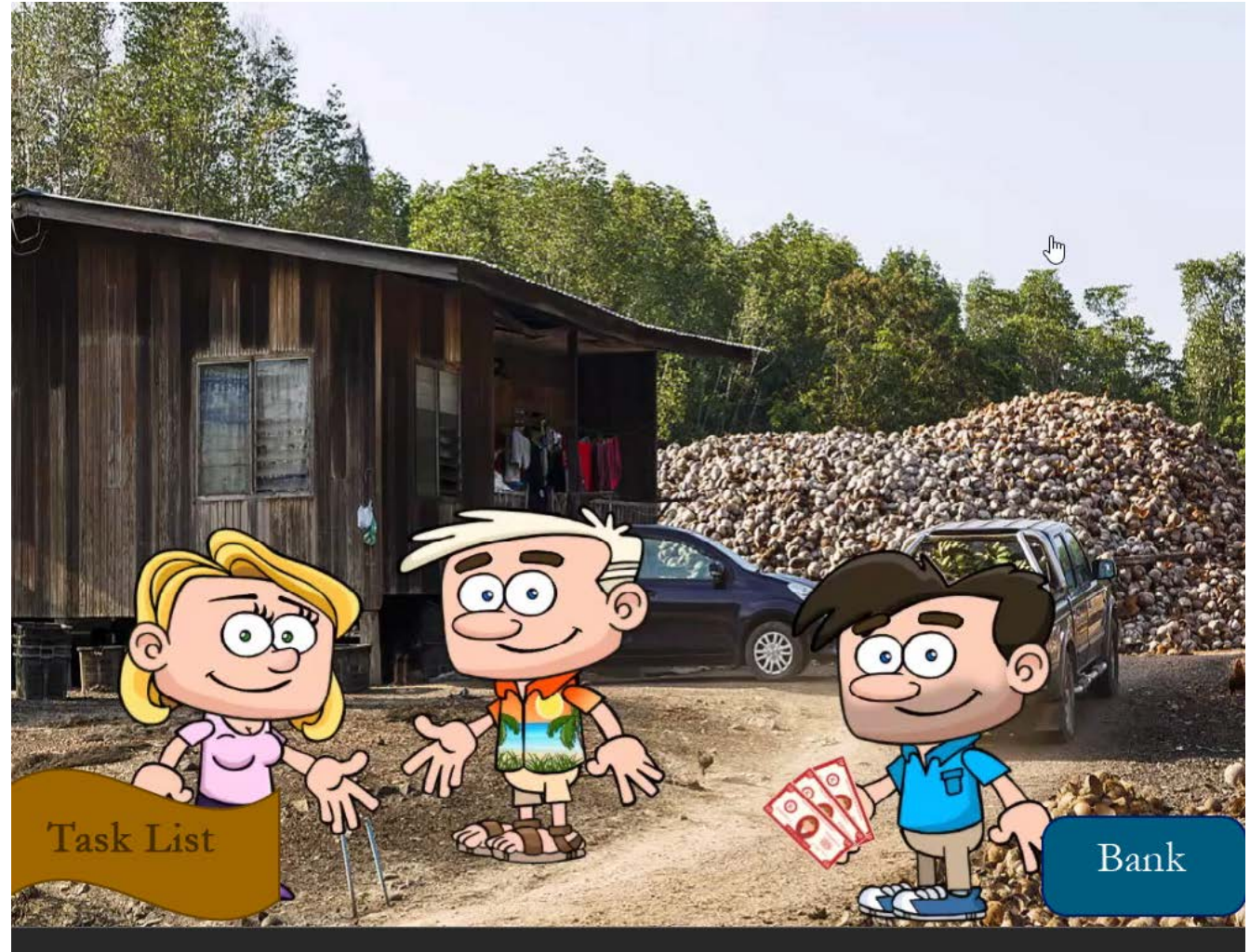
- Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.

Add Screen at end of round for export if local demand has been satisfied.



Game Task Example

- Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center



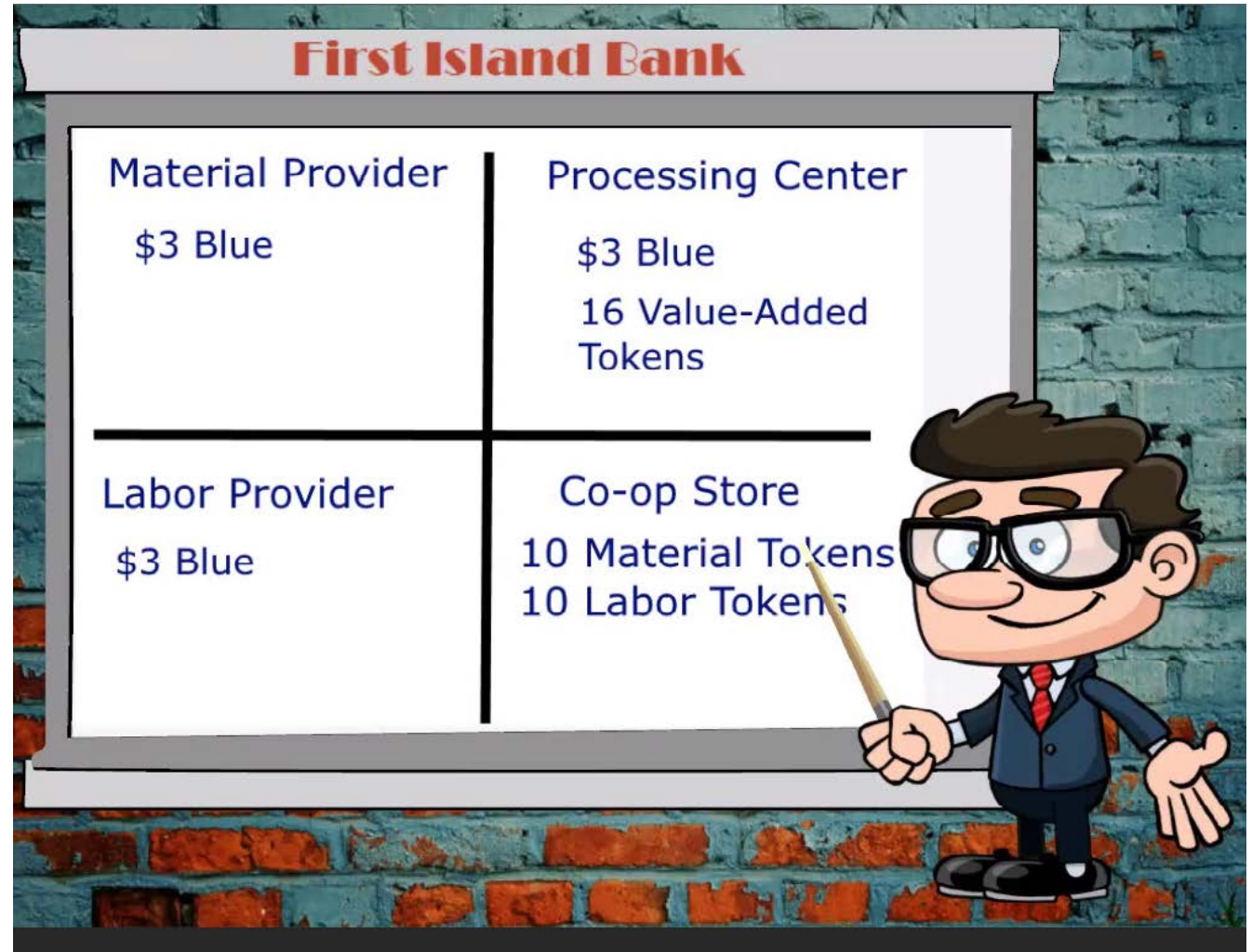
Game Task Example

- Sell the product in the Co-op Store for \$3 a piece.



Fiscal Year End

Go to the Bank and the Bank Manager will allow you to view a tally of all Accounts. What do you notice about the state of the economy?



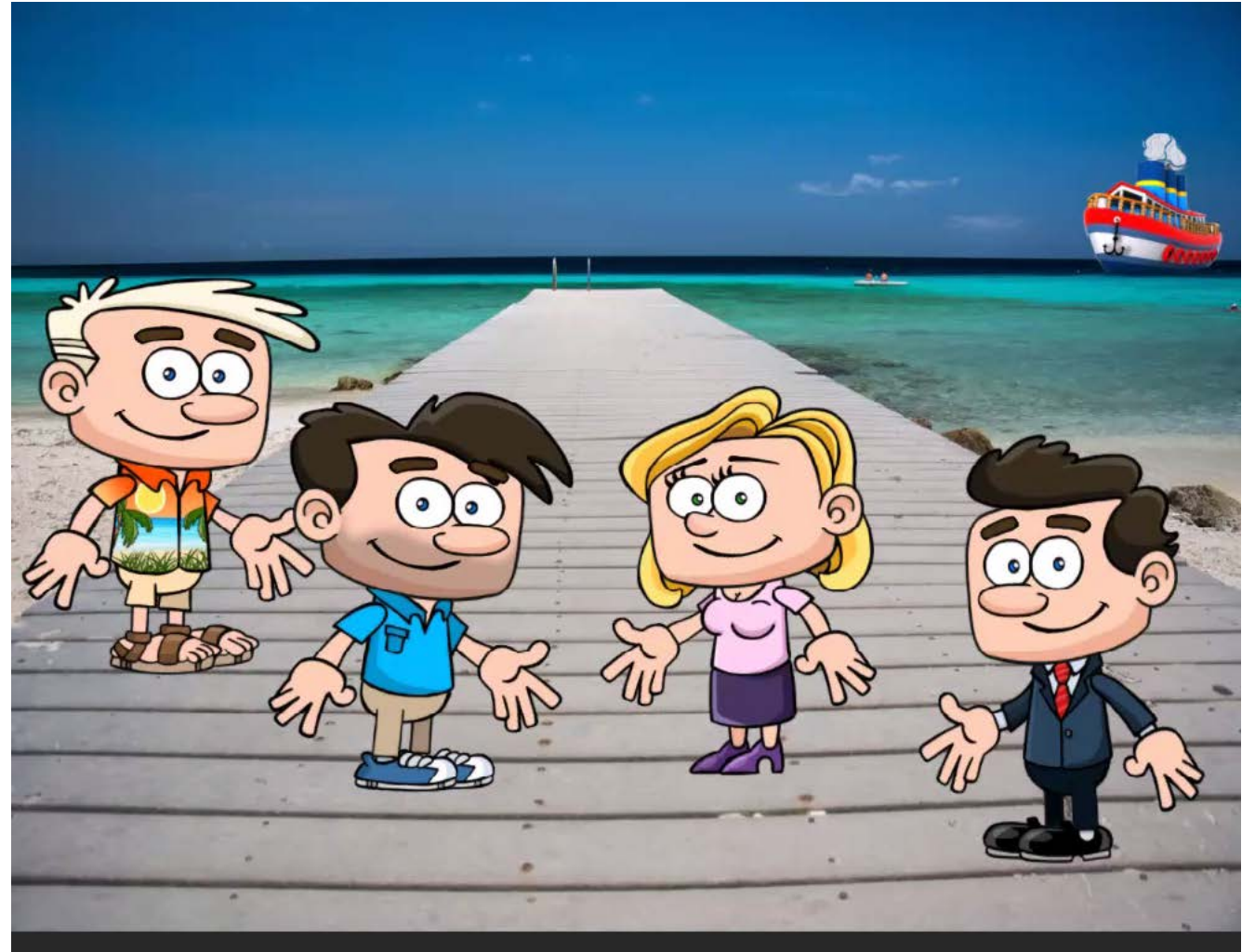
First Island Bank

Material Provider \$3 Blue	Processing Center \$3 Blue 16 Value-Added Tokens
Labor Provider \$3 Blue	Co-op Store 10 Material Tokens 10 Labor Tokens

A cartoon bank manager with glasses and a suit is pointing at the whiteboard with a wooden stick.

Community Viewpoints

How does each provider feel about their profits during the past year? Listen in to their ideas and opinions.

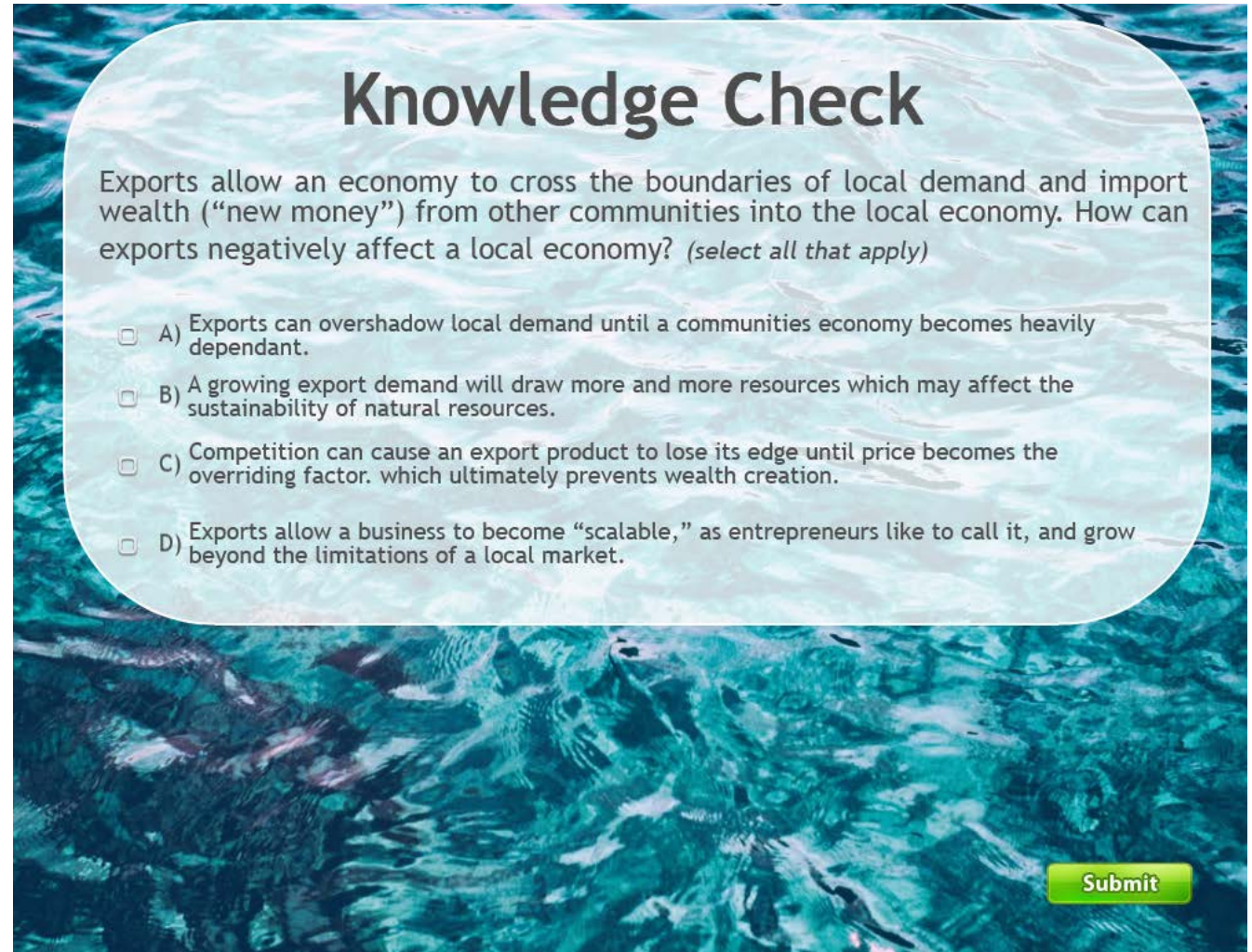


Knowledge Check

Exports allow an economy to cross the boundaries of local demand and import wealth (“new money”) from other communities into the local economy. How can exports negatively affect a local economy? (select all that apply)

Correct Answer Feedback:

Incorrect Answer Feedback:



Knowledge Check

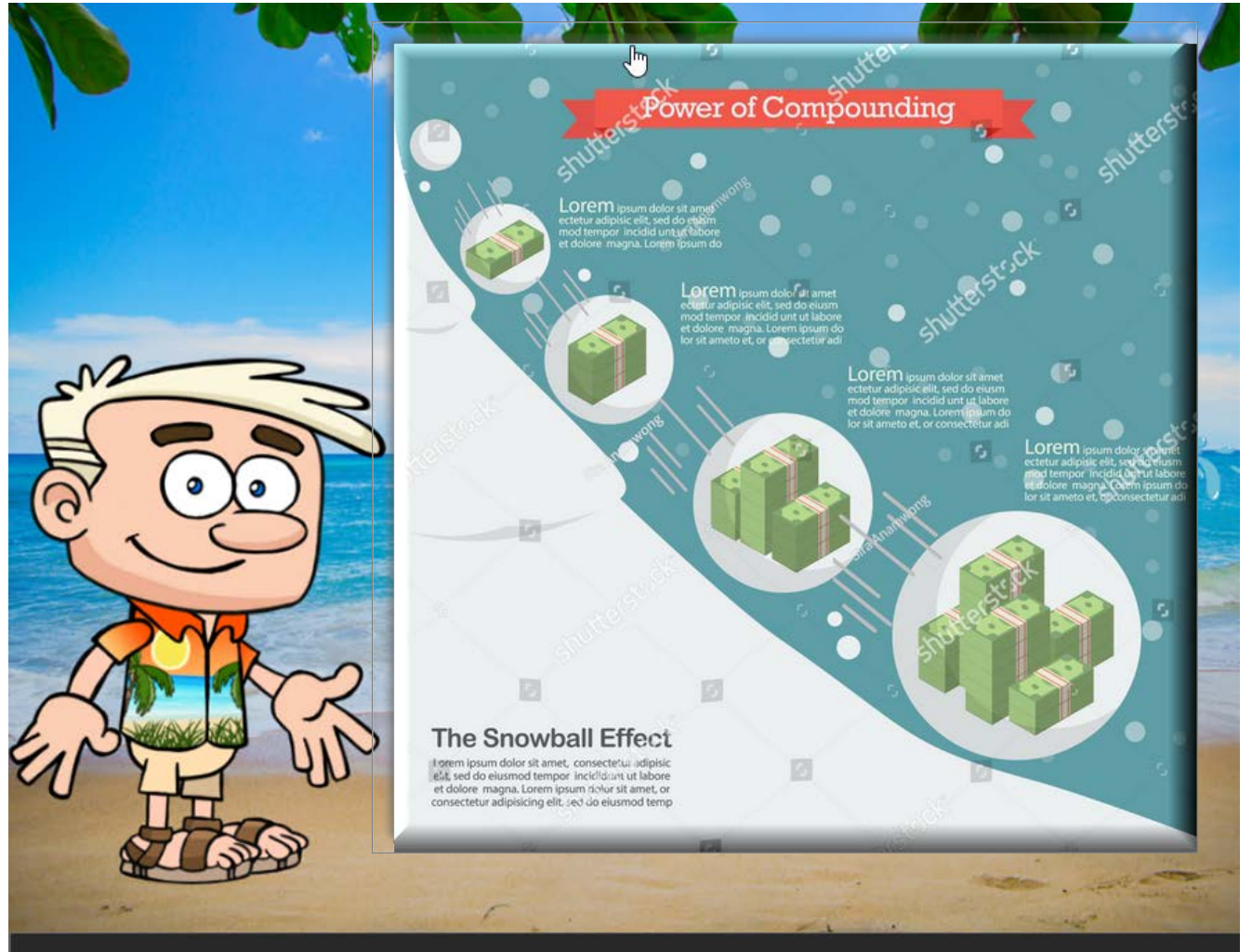
Exports allow an economy to cross the boundaries of local demand and import wealth (“new money”) from other communities into the local economy. How can exports negatively affect a local economy? *(select all that apply)*

- A) Exports can overshadow local demand until a communities economy becomes heavily dependant.
- B) A growing export demand will draw more and more resources which may affect the sustainability of natural resources.
- C) Competition can cause an export product to lose its edge until price becomes the overriding factor. which ultimately prevents wealth creation.
- D) Exports allow a business to become “scalable,” as entrepreneurs like to call it, and grow beyond the limitations of a local market.

[Submit](#)

Round-Up 4

1. Exports allow an economy to cross the boundaries of local demand and import wealth (“new money”) from other communities into the local economy. Exports allow a business to become “scalable,” as entrepreneurs like to call it, and grow beyond the limitations of a local market.
2. If exports overshadow local demand, a community’s economy becomes heavily dependent on that export. If the export product loses its edge, price becomes the overriding factor. The lumber from the community mill becomes indistinguishable from the lumber from any other mill. In that case, price becomes the overriding factor and ultimately prevents wealth creation.
3. An export economy can easily become an insatiable conversion machine. A growing export demand will draw more and more resources. That may be okay when resources are plentiful or renewable, but it may tempt communities and organizations, especially those with natural resources, to overdraw unsustainably. The export simulation round can be used to make communities aware of this issue, especially if their communities experienced the boom-and-bust cycles that are often associated with natural-resource economies.
4. Trade (exports and imports) among communities can be mutually beneficial. Communities can support each other by trading products that favor their respective local (competitive) advantages, for example, an Alaska fishing village importing oranges from California and exporting salmon and halibut to California.
5. When a community exports a product, it also exports the labor and materials content of the product. This is similar to what happens when an organization decides to not make a component in-house but to outsource it; it eliminates the in-house labor and materials flow in favor of a complete component. In the standard version of The Dollar Game we simplify the economic impact by accounting only for the value-added component. In reality, export demand will not only have a direct impact on the exporting industry, but also an indirect effect on labor and materials and an induced effect on retail trade, professional services, and infrastructure. In our Alaskan village example, fishers invest in better boats and netting and hire more crew members. That, in turn, stimulates local ship builders who hire more craftsmen and buy more materials. The new crew members and craftsmen buy houses, support the local retail businesses, and visit local doctors. And so on. In this case, export not only pays for the value added, but for the full product value, including labor and materials.



Happy New Year!

The last two rounds showed that a wealth increase creates a ripple effect through the local economy, with increased demand causing increased production, which in turn increased the demand for the Labor and Materials providers. In a real economy there are secondary ripples as well, such as when the owner of a business uses his or her wealth to renovate the kitchen or celebrate success with lavish dinners. Over the past year our economy has grown rapidly due to wealth gained through exports to Avalon Island. A large co-op on Avalon Island has bought out the local Co-op on Prosperity Island.

As the year begins, the Processing Center shares its new wealth and pays out yearly dividends to both the Labor and Materials Providers on the island. (\$1 minimum and the timing of the bonuses are at the discretion of the parent company)

The Bank will estimate annual local demand by using this calculation:

$$\text{Local Demand} = \frac{\text{Wealth of Labor Provider} + \text{Wealth of Material Provider}}{2}$$

Note: Wealth includes dollars and tokens.



Round 5: Distant Ownership

Task List

1. The Labor Provider and Materials Provider buy tokens from the Trading Center for \$1 each.
2. The Processing Center buys tokens from the Labor and Materials providers, making products the same way as in the previous round:

1 Bag of Shredded Coconut = 1 Labor Tokens + 1 Materials Token + 1 Value-added Token

3. The Processing Center trades the product at the Trading Center for \$3.
4. The Trading Center exchanges the value-added token at the Bank for \$1 (green bill) when the product is sold locally, but for \$1 (yellow bill) if the product is exported. Local demand is filled first; the Bank will need to keep track.



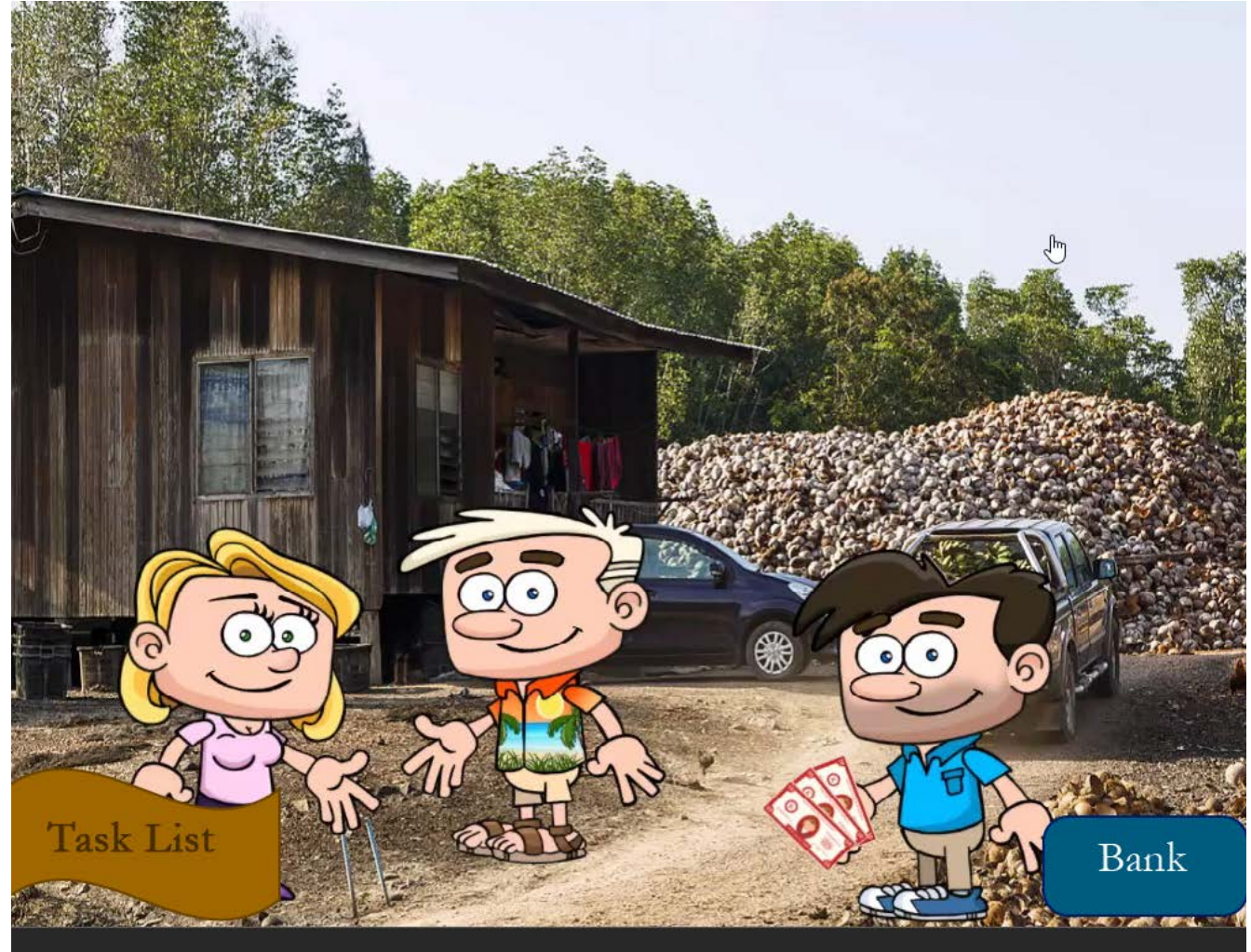
Game Task Example

- Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.



Game Task Example

- Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center



Game Task Example

- Sell the product in the Co-op Store for \$3 a piece.



Fiscal Year End

Go to the Bank and the Bank Manager will allow you to view a tally of all Accounts. What do you notice about the state of the economy?



First Island Bank

Material Provider \$3 Blue	Processing Center \$3 Blue 16 Value-Added Tokens
Labor Provider \$3 Blue	Co-op Store 10 Material Tokens 10 Labor Tokens

The illustration shows a bank manager with dark hair and glasses, wearing a blue suit and red tie, standing behind a wooden podium. He is gesturing towards a large white board with a black border. The board is divided into four quadrants by a black cross. The top-left quadrant is labeled 'Material Provider' and contains '\$3 Blue'. The top-right quadrant is labeled 'Processing Center' and contains '\$3 Blue' and '16 Value-Added Tokens'. The bottom-left quadrant is labeled 'Labor Provider' and contains '\$3 Blue'. The bottom-right quadrant is labeled 'Co-op Store' and contains '10 Material Tokens' and '10 Labor Tokens'. The board is set against a background of a brick wall with blue mortar.

Community Viewpoints

How does each provider feel about their profits during the past year and the state of the local economy? Listen in to their ideas and opinions.

Add Avalon Island Representative

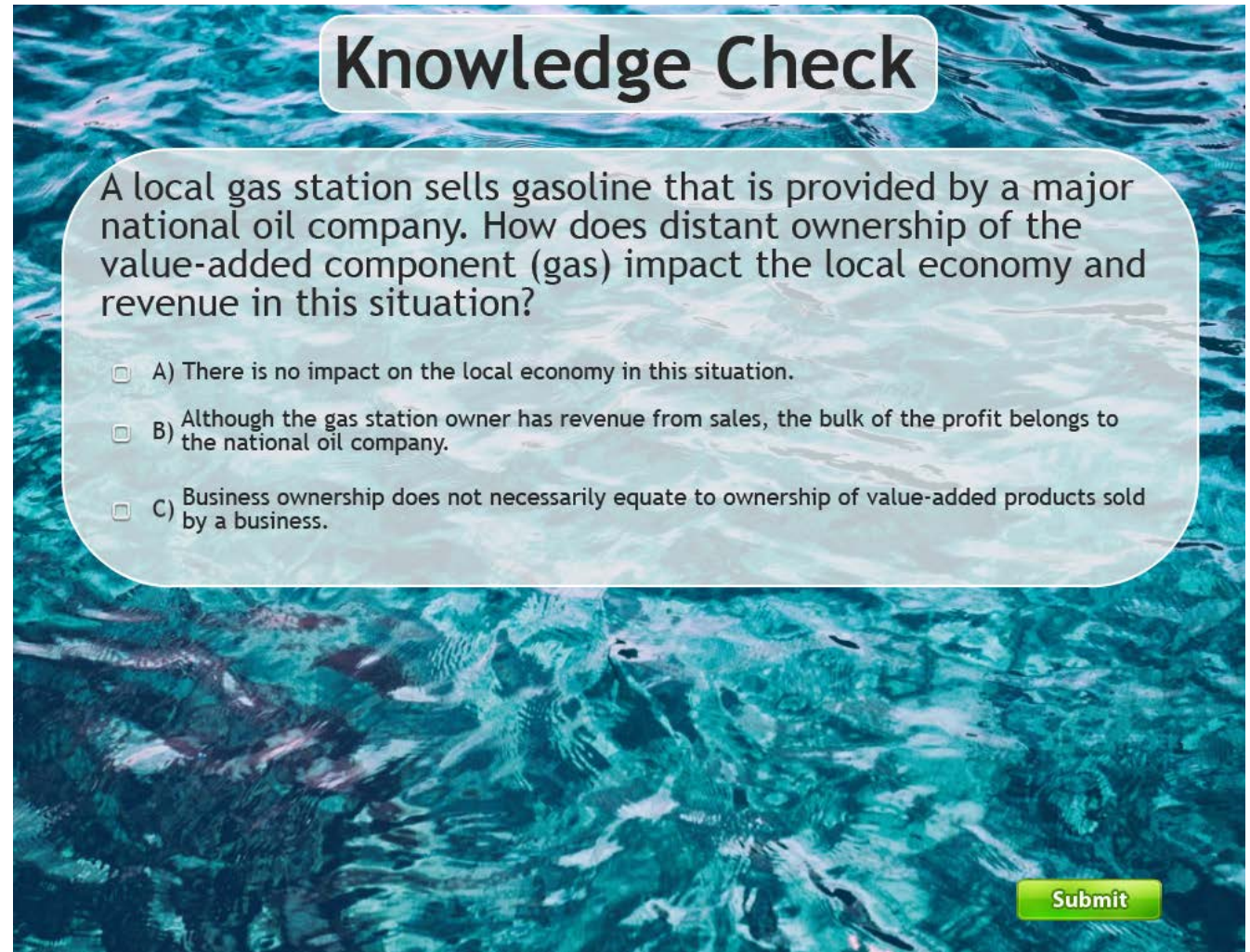


Knowledge Check

A local gas station sells gasoline that is provided by a major national oil company. How does distant ownership of the value-added component (gas) impact the local economy and revenue in this situation?
(select all that apply)

Correct Answer Feedback:

Incorrect Answer Feedback:



Knowledge Check

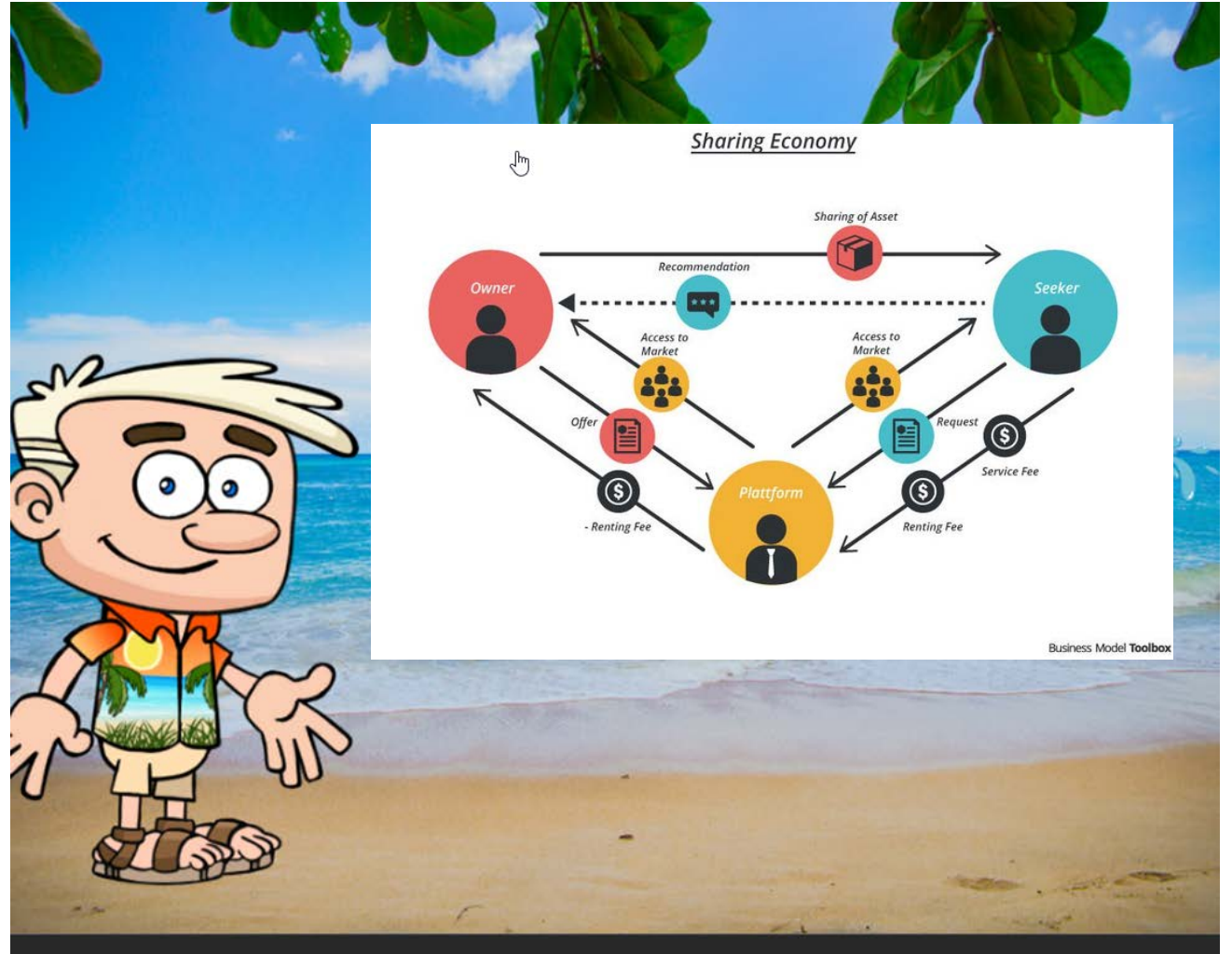
A local gas station sells gasoline that is provided by a major national oil company. How does distant ownership of the value-added component (gas) impact the local economy and revenue in this situation?

- A) There is no impact on the local economy in this situation.
- B) Although the gas station owner has revenue from sales, the bulk of the profit belongs to the national oil company.
- C) Business ownership does not necessarily equate to ownership of value-added products sold by a business.

Submit

Round-Up 5

Business ownership does not necessarily equate to ownership of the added value of the product sold by the business. For example, the added value of gasoline (the long process of refining crude oil into usable gasoline) sold by the local gas station is largely owned by the oil company that produced the gasoline and immediately leaves the local economy. Even though the gas station owner may have revenue of thousands of dollars per day, the value added component of his sale (and thus the wealth contribution to the local economy) amounts to only pennies per gallon. A local artist, on the other hand, may use little material but add considerable value to it with his skills and labor, almost all of it staying in the local economy and contributing to local wealth creation.



Happy New Year!

During the past year, all value generated through exports was passed to the distant parent Co-op. There was some positive economic impact generated by local demand for our product.

The Labor Provider has moved to Avalon Island to be closer to the Co-op's parent company and Avalon Island's more extensive amenities. The new ownership of the co-op and expansion has resulted in workers commuting from Avalon Island to work on Prosperity Island. The Labor Provider buys labor tokens from the Trading Center where it works, but its wealth counts toward the community where it lives.

As the year begins, the Processing Center shares its new wealth and pays out yearly dividends to both the Labor and Materials Providers on the island. (\$1 minimum and the timing of the bonuses are at the discretion of the parent company)

The Bank will estimate annual local demand by using this calculation:

$$\text{Local Demand} = \frac{\text{Wealth of Labor Provider} + \text{Wealth of Material Provider}}{2}$$



Round 6: Imported Labor

Task List

1. The Labor Provider and Materials Provider buy tokens from the Trading Center for \$1 each.
2. The Processing Center buys tokens from the Labor and Material providers, making products:

1 Bag of Shredded Coconut = 1 Labor Tokens + 1 Materials Token + 1 Value-added Token

3. The Processing Center trades the product at the Trading Center for \$3.
4. The Trading Center exchanges the value-added token at the Bank for \$1 (green bill) when the product is sold locally, and for \$1 (yellow bill) if the product is exported. Local demand is filled first; the Bank will need to keep track.



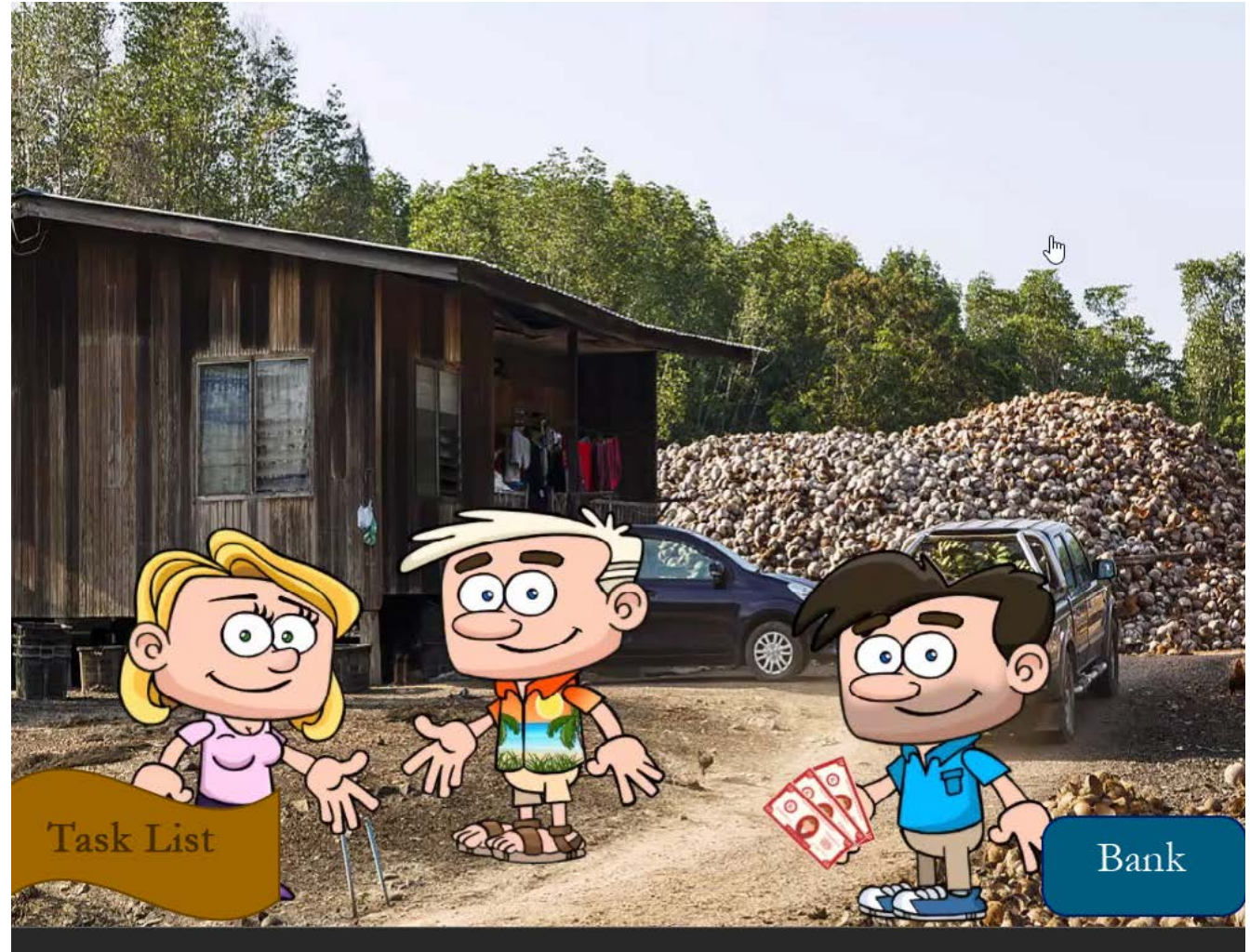
Game Task Example

- Buy labor tokens from the Trading Center for \$1 each so you can provide labor to the Processing Center.



Game Task Example

- Buy material tokens from the Trading Center for \$1 each so you can provide materials to the Processing Center



Game Task Example

- Sell the product in the Co-op Store for \$3 a piece.



Fiscal Year End

Go to the Bank and the Bank Manager will allow you to view a tally of all Accounts. What do you notice about the state of the economy?



Community Viewpoints

How does each provider feel about their profits during the past year and the state of the local economy? Listen in to their ideas and opinions.




Round-Up 6

The take-home message is that, even though companies or employees work in a community, they stop contributing to local wealth generation when they are not part of the local community. This, over time, will gradually erode the local economy, and can create a feedback loop that accelerates the erosion. When the local economy loses its tax base to maintain amenities, the wealthier families may start moving away and make the problem even bigger.

Changes in ownership can negatively impact the local economy when profits and dividends flow through the distant owner. Distant ownership can erode the local economy as workers may not live where they work and do not necessarily contribute to the local wealth.

In this game we have examined how an economy works and how alternative development paths affect trade (imports & exports), innovation, and consequently local wealth generation.



Before you buy, consider...
How much of your \$100 purchase stays in your community when spent at

an independent local store	an in-town chain outlet	a remote online store (if delivery driver resides locally)
50%	25%	10%

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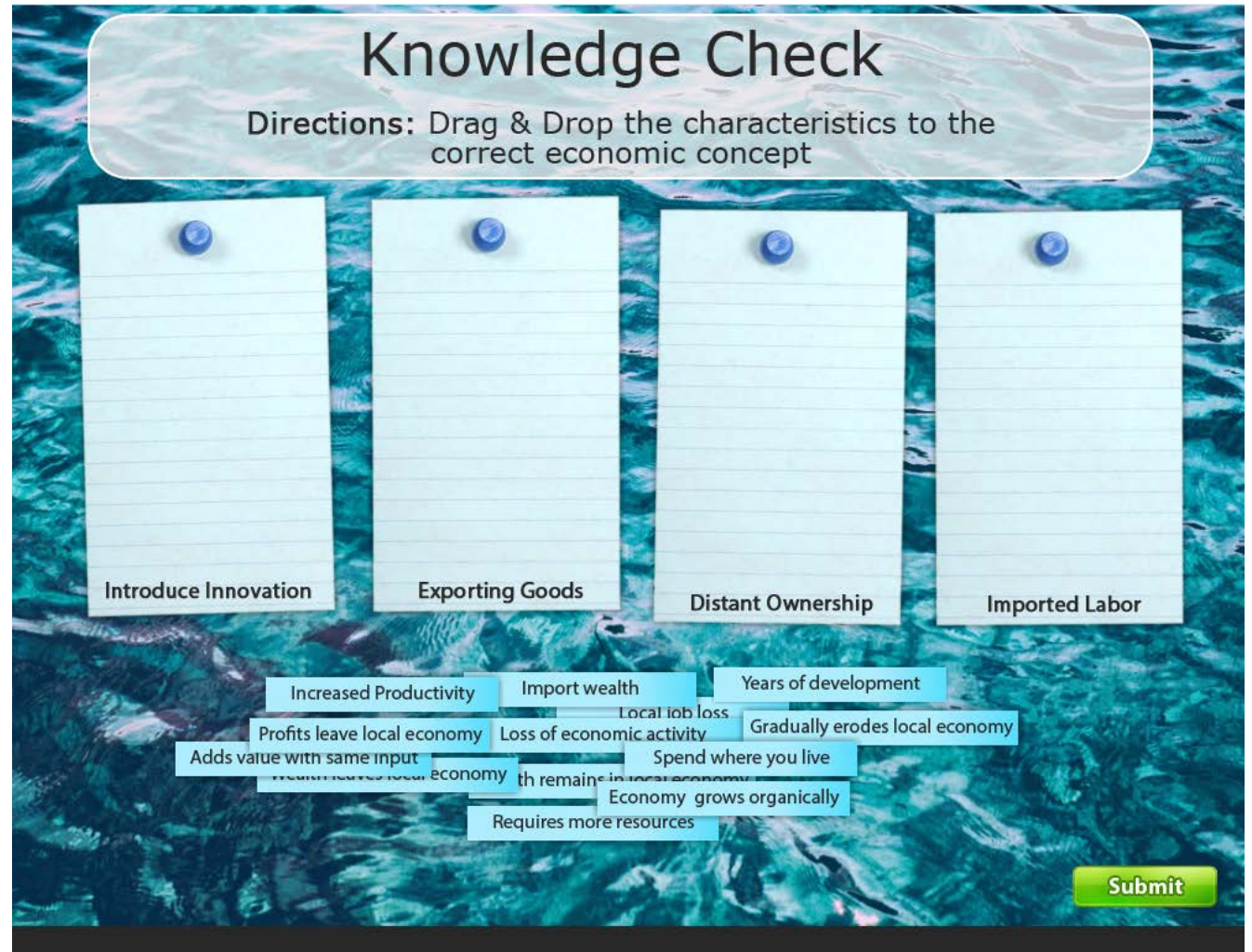
Knowledge Check

Weber (1987) stated, Communities often ask, 'What kind of tax incentive or public investment is most effective in bringing in industry?' They should first ask, 'is bringing in industry the most effective way to increase and stabilize incomes in this community in the long run?' Or, indeed, 'What alternatives exist for improving the income status of the poor and unemployed in our community?'

Drag & Drop the characteristics to the correct economic concept

Correct Answer Feedback:

Incorrect Answer Feedback:



The image shows an interactive 'Knowledge Check' interface. At the top, a title 'Knowledge Check' is displayed in a white rounded rectangle. Below the title, a set of instructions reads: 'Directions: Drag & Drop the characteristics to the correct economic concept'. The interface features four vertical, lined notepad cards, each with a blue pushpin at the top and a label at the bottom. The labels are: 'Introduce Innovation', 'Exporting Goods', 'Distant Ownership', and 'Imported Labor'. Below the cards, there is a collection of text boxes representing characteristics to be dragged. These include: 'Increased Productivity', 'Import wealth', 'Years of development', 'Local job loss', 'Profits leave local economy', 'Loss of economic activity', 'Gradually erodes local economy', 'Adds value with same input', 'Spend where you live', 'Economy grows organically', and 'Requires more resources'. A green 'Submit' button is located in the bottom right corner of the interface.

Concept Review

Core Concept 1: Demand Drives Demand in the Circulation of Money

Core Concept 2: The Power of Compounding

Core Concept 3: Innovation and Export

Advanced Topics????



Reflection Question

Add Questions for reflection and provide a space for the learner to answer.



Award Badge and Training Certificate

- *Completion Certificate*
- *Dollar Game Badge*

