

OLD AS DIRT

Teacher Guide



Setting Up Welcome

Terminology

Session

A **session** is a round of playing through one or more of the Old as Dirt games. A session is typically as many games as you want to play using a single game code.

Game Code

A **game code** is the code used to connect the 6, 7, or 8 Student Views that are playing the game to one Classroom View, with one Teacher View connected. One game code is used by everyone who is connected to a single session of the game.

Teacher View

The **Teacher View** is the *website* used by the teacher to control a session, and the games within a session. The Teacher View is accessible as a website, via any web browser with an internet connection. A link is provided shortly.

Student View

The **Student View** is the *website* used by the 6, 7, or 8 students or teams of students to play the game. Each Student View controls one player in the game. Each Student View can be controlled by a single student, or a team of 2 to 4 students using a single device between them. A link is provided shortly.

Classroom View

The **Classroom View** is where the majority of the action takes place. It is provided by the Windows or macOS *app* that is displayed to the whole class of students playing a session. The app is downloadable from the Secret Lab website. A link is provided shortly.

Player

A **player** is a *single student or team* of 1 to 4 students using a single Student View. A player is any one or group using a single Student View. One Student View equals one player.

OaD

OaD is short for Old as Dirt.

Typical Setup



1x Classroom View

macOS/Windows app

1x Teacher View

Website



6x 7x or 8x Student Views

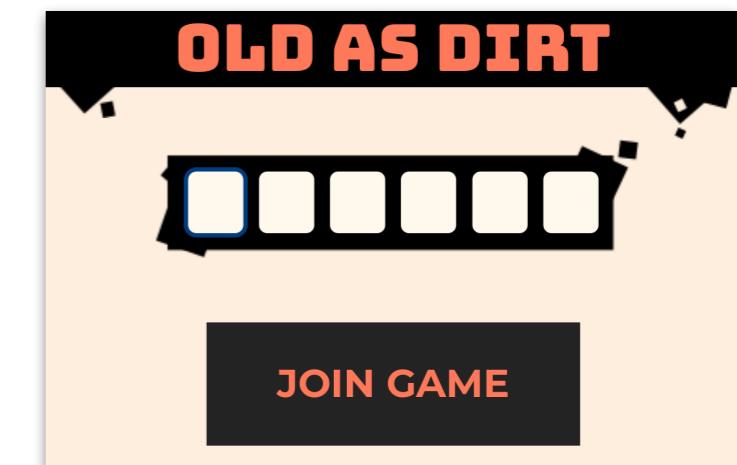
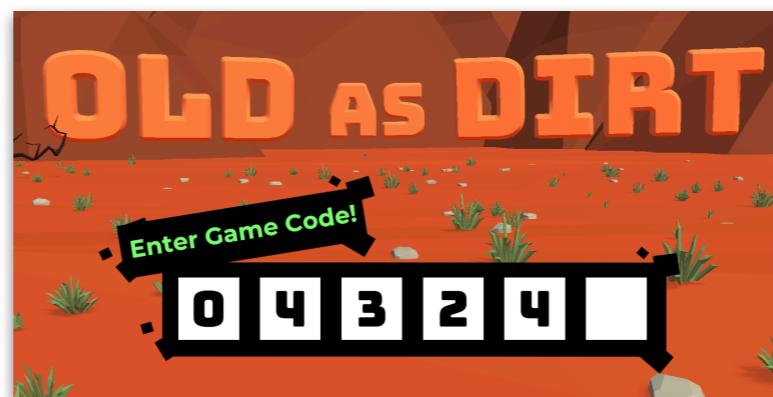
Website

Overall Flow

Teacher creates a new session using the Teacher View.

Using the game code for the new session, the teacher connects a Classroom View.

Each player connects to the session using the same game code, via the Student View.



Once-off First Setup

Step 1

Download the Old as Dirt app for macOS and/or Windows.

Reach out to the CoRE Lead for download links.



Step 2

Install the Old as Dirt app on a macOS or Windows computer that can be displayed to the whole classroom and has an internet connection.

Step 3

Ensure you have a phone, tablet, or different computer, with an internet connection, that can privately access the Teacher View website, for game control and management.

Creating a Session

Creating a new session

To create a new session of Old as Dirt:

- 📌 Use your private device to navigate to the following URL in a web browser. This will be your private Teacher View, for controlling the game:

oldasdirt.corefoundation.com.au/teacher/

- 📌 Once the URL has loaded, to create a new session tap or click the Create New Game button. (Figure 1)

- 📌 A new session will be created, and the game code will be displayed. (Figure 2)

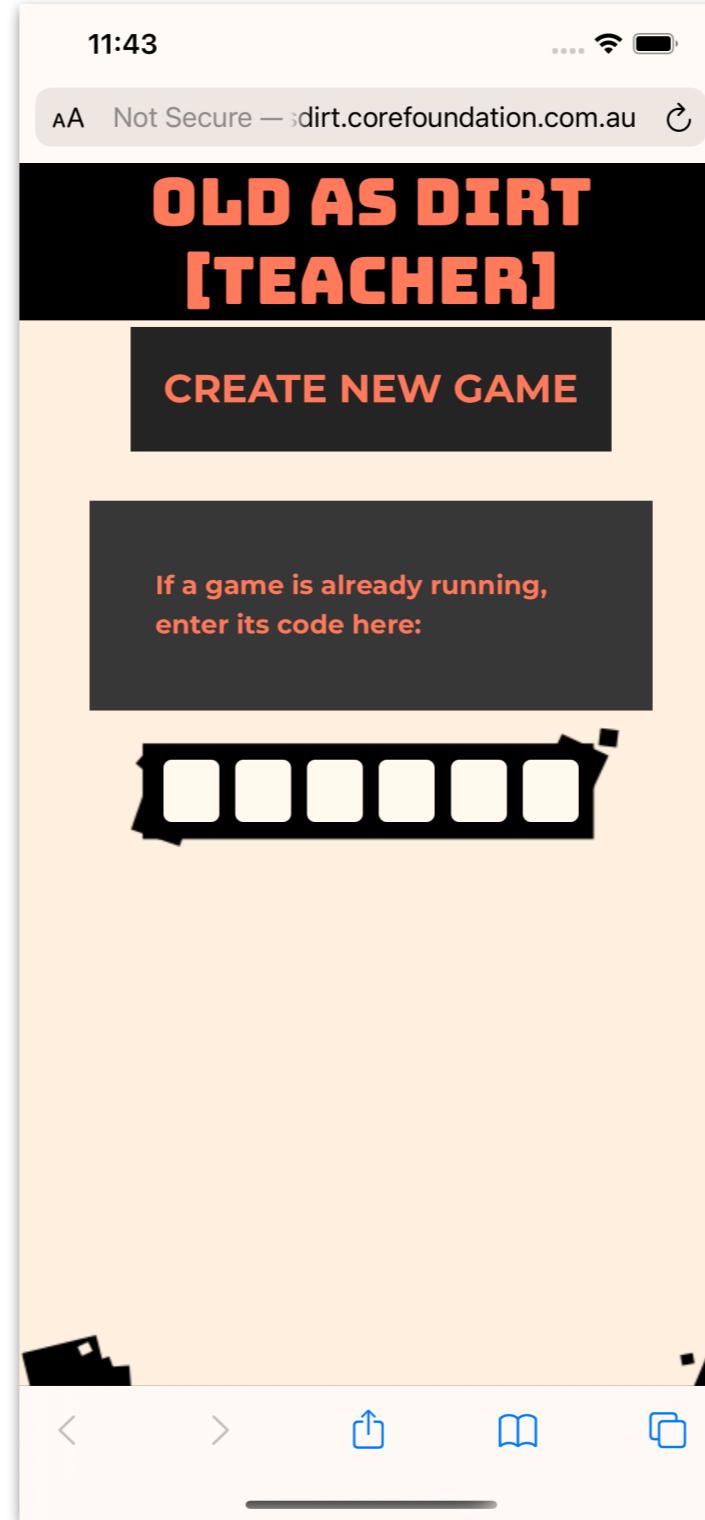


Figure 1

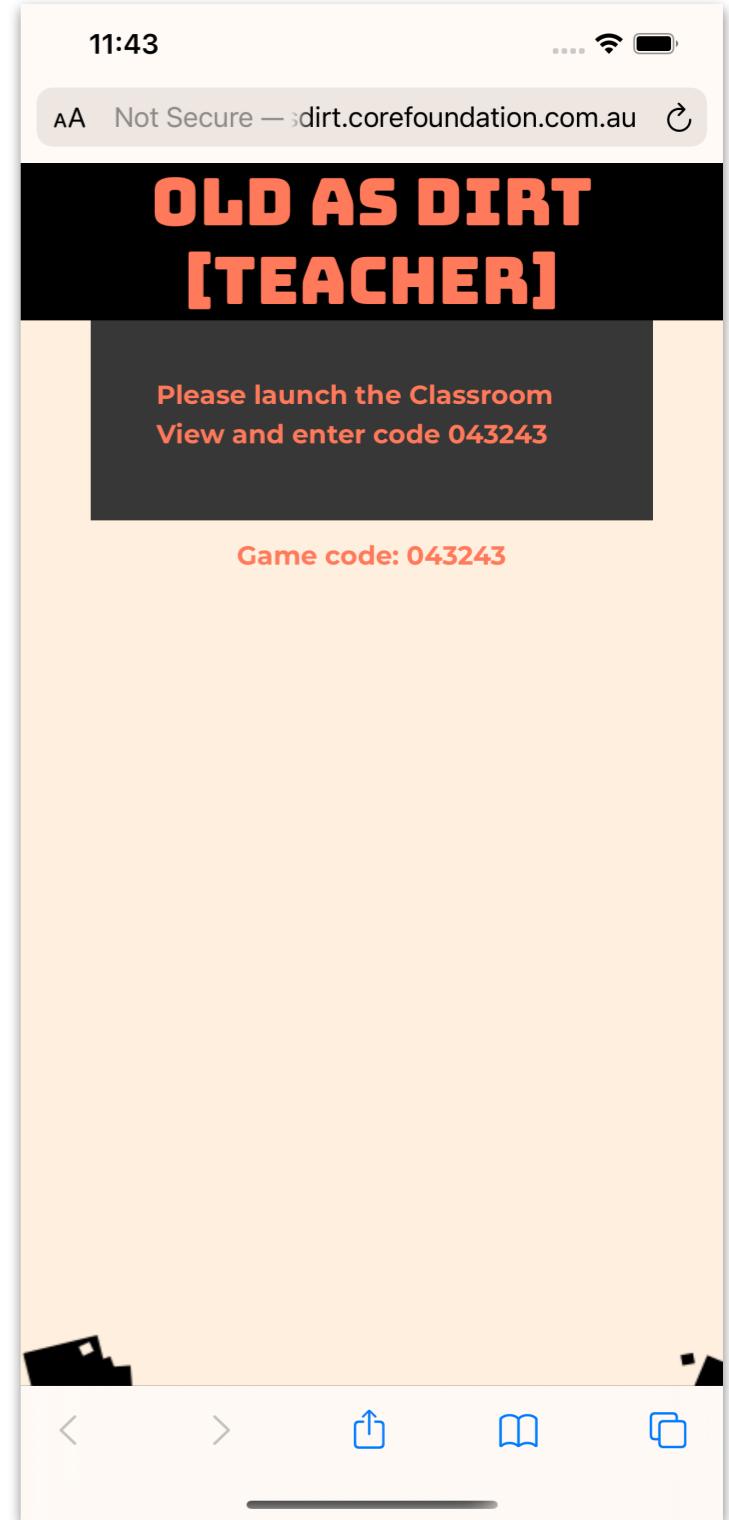


Figure 2

Creating a Session

Attaching a Classroom View

To connect a Classroom View:

- 📌 Download the Old as Dirt app for macOS or Windows, as per the instructions on the Once-off First Setup page, earlier.
- 📌 Launch the Classroom View app on a macOS or Windows computer.
- 📌 Enter the same game code displayed from the previous page in the field on the Classroom View. (Figure 1)
- 📌 The Classroom View will connect to the Teacher View. (Figure 2)
- 📌 You can back out and enter a new code by pressing Escape on the computer running the Classroom View.

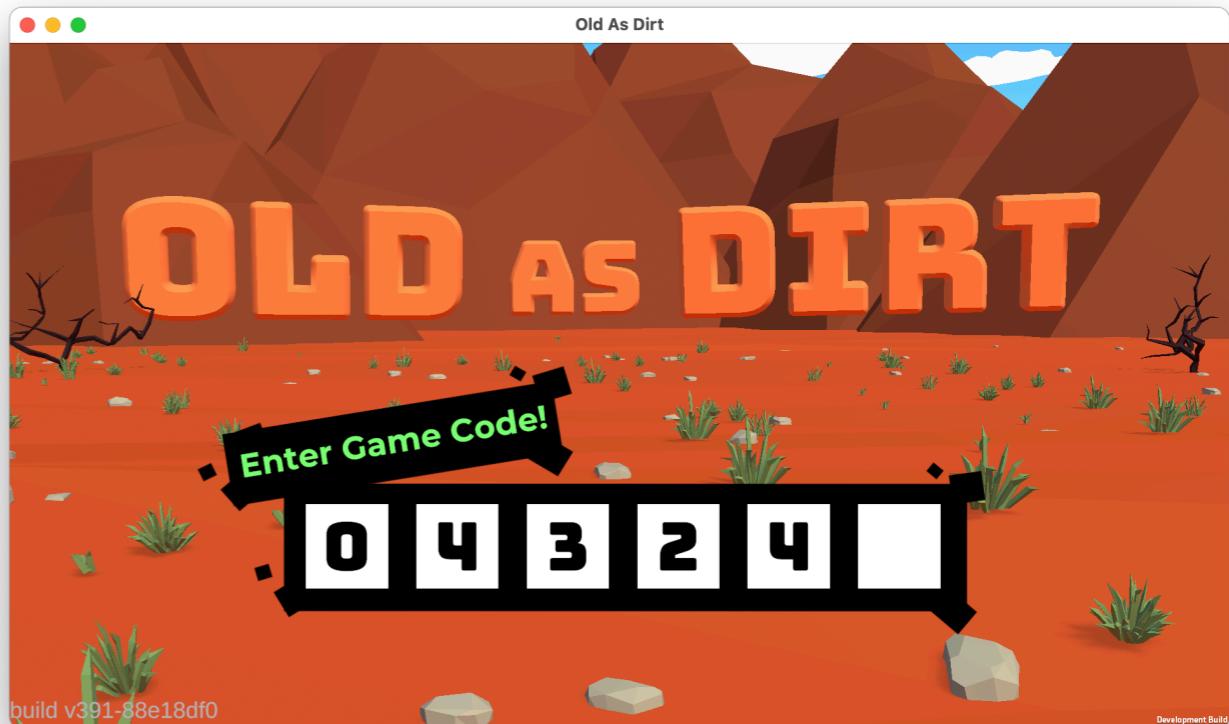


Figure 1

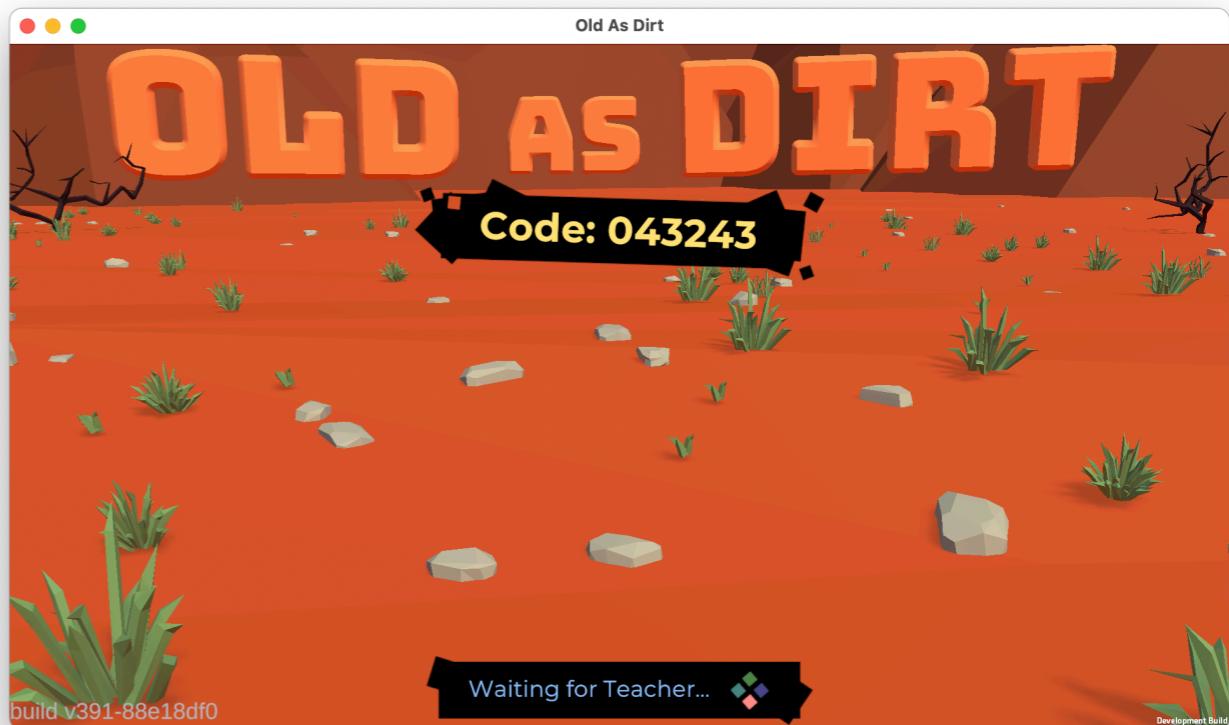


Figure 2

Creating a Session

Connecting Students

To connect Student Views:

- 📌 Ask each student or student team that will be playing to navigate to the following URL in a web browser:
oldasdirt.corefoundation.com.au/
- 📌 The games support 6, 7, or 8 players. A player can be a team or a single student.
- 📌 Once the URL has loaded, students should enter the game code that is displayed on the Classroom View. (Figure 1)
- 📌 With the code entered, each Student View should be connected with the session. (Figure 2)
- 📌 The connected Classroom View should update as each Student View connects, showing their teams. (Figure 3)

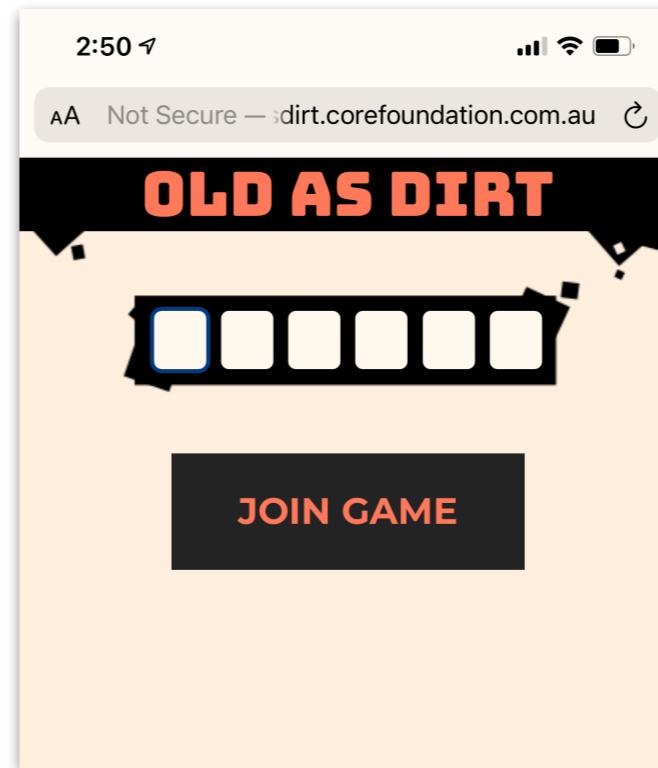


Figure 1

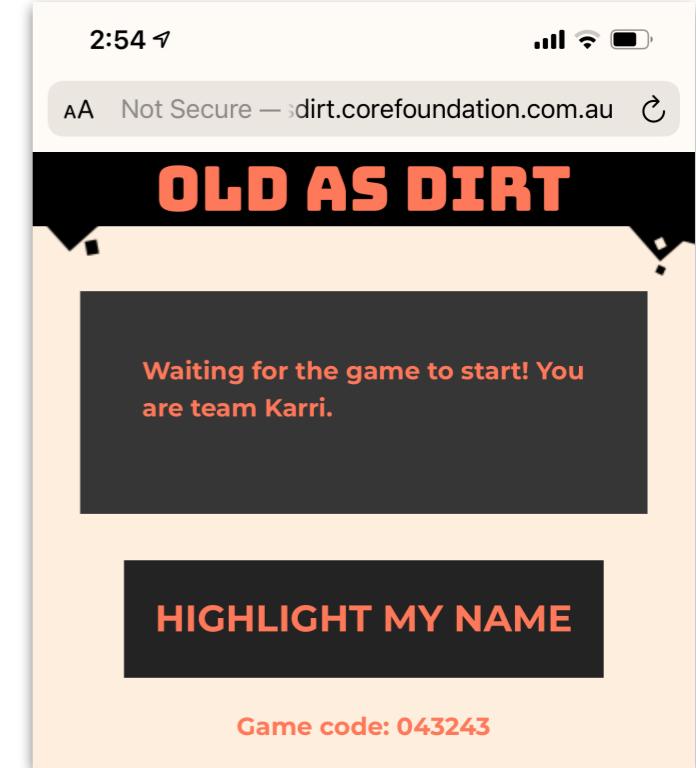


Figure 2

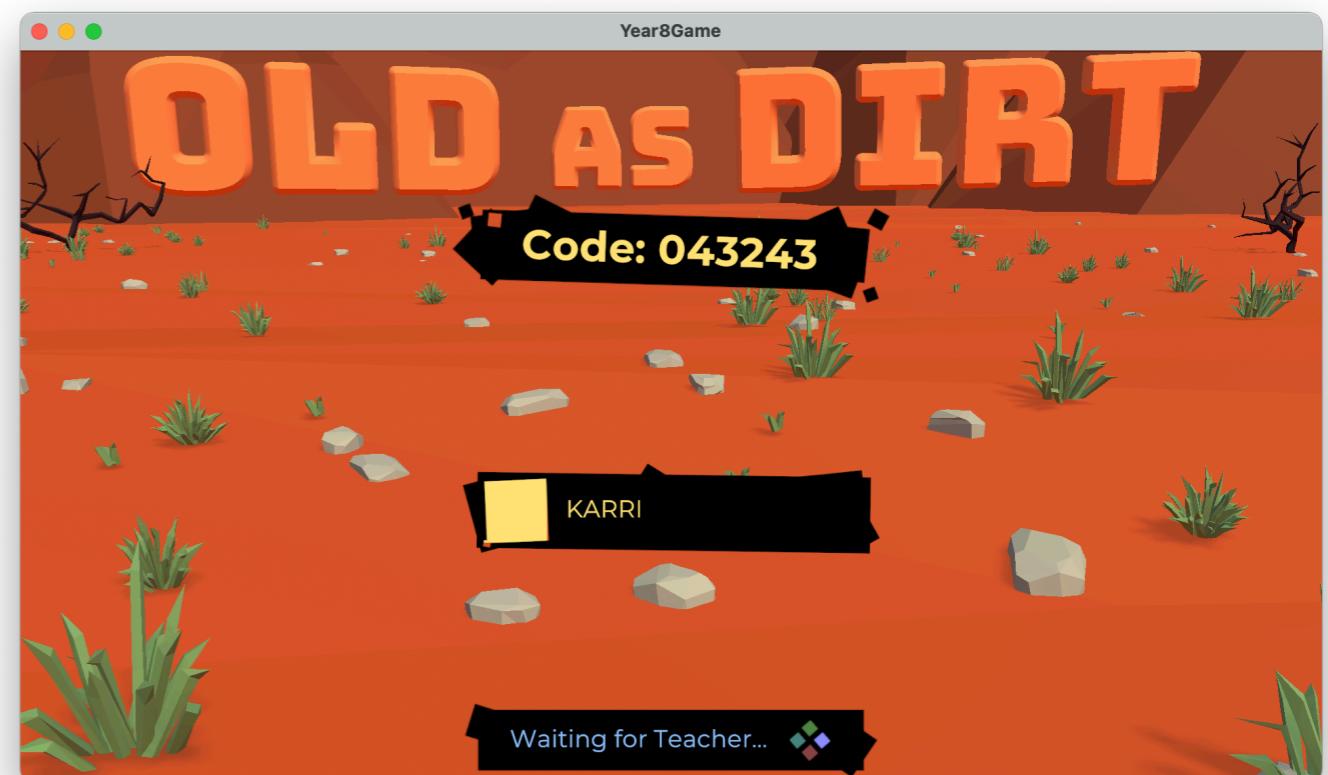


Figure 3

Creating a Session

Starting

📌 Once your session is up and running, and the desired amount of Student Views have connected (the game supports 6, 7, or 8 Student Views being connected) you can use the Teacher View to start a specific game.

📌 A specific team can be removed from the game, using the Kick buttons available in the Teacher View. (Figure 1)

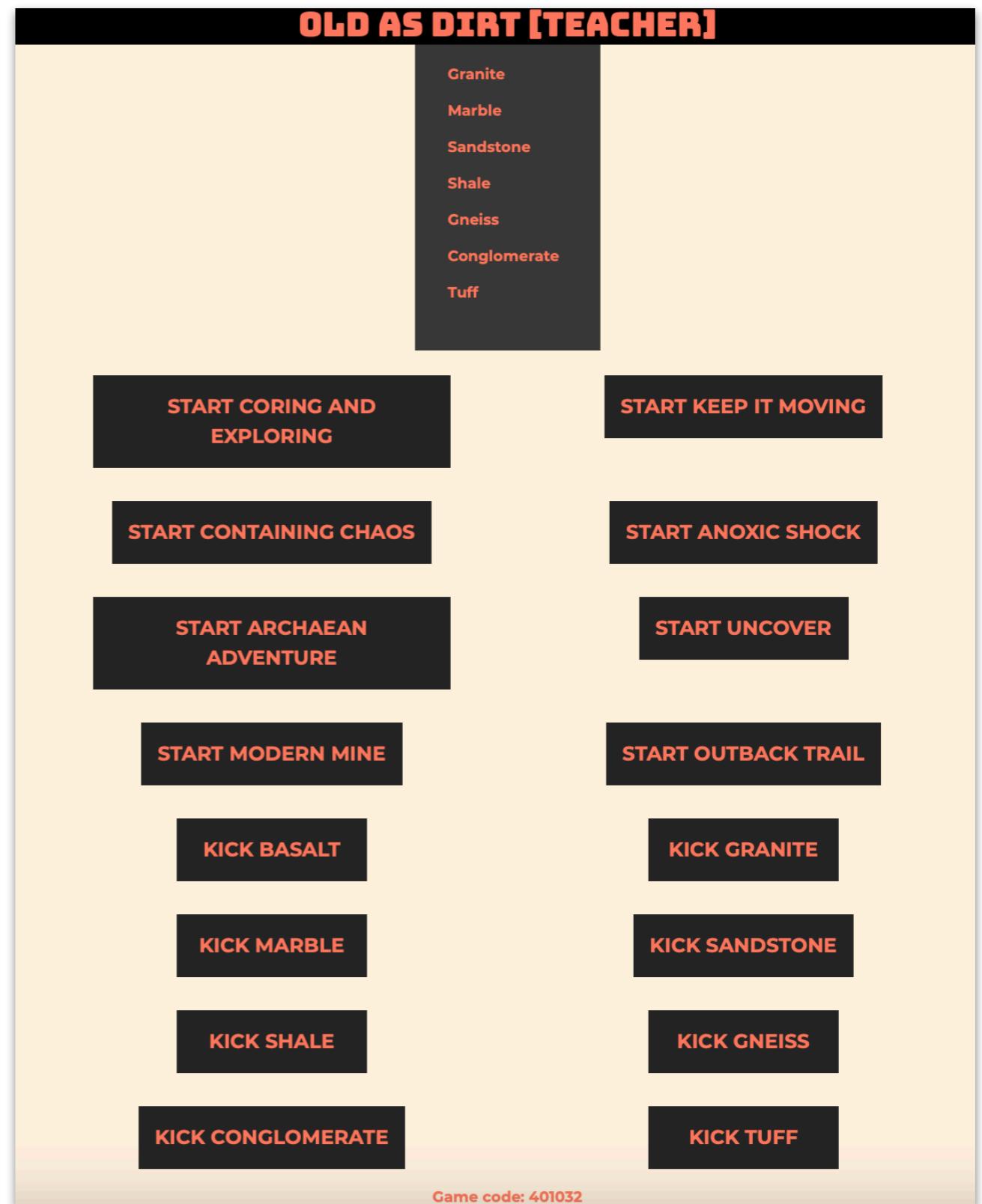


Figure 1

Running via Zoom

- 📌 Old as Dirt can be run remotely via Zoom, or similar screen sharing collaboration software.
- 📌 To run Old as Dirt remotely, simply launch the Classroom View app on a macOS or Windows computer that can share its screen via Zoom.
- 📌 Share the screen, or Old as Dirt Classroom View Window, via Zoom to the class.
- 📌 Students can connect as normal.
- 📌 The Teacher View can connect as normal.

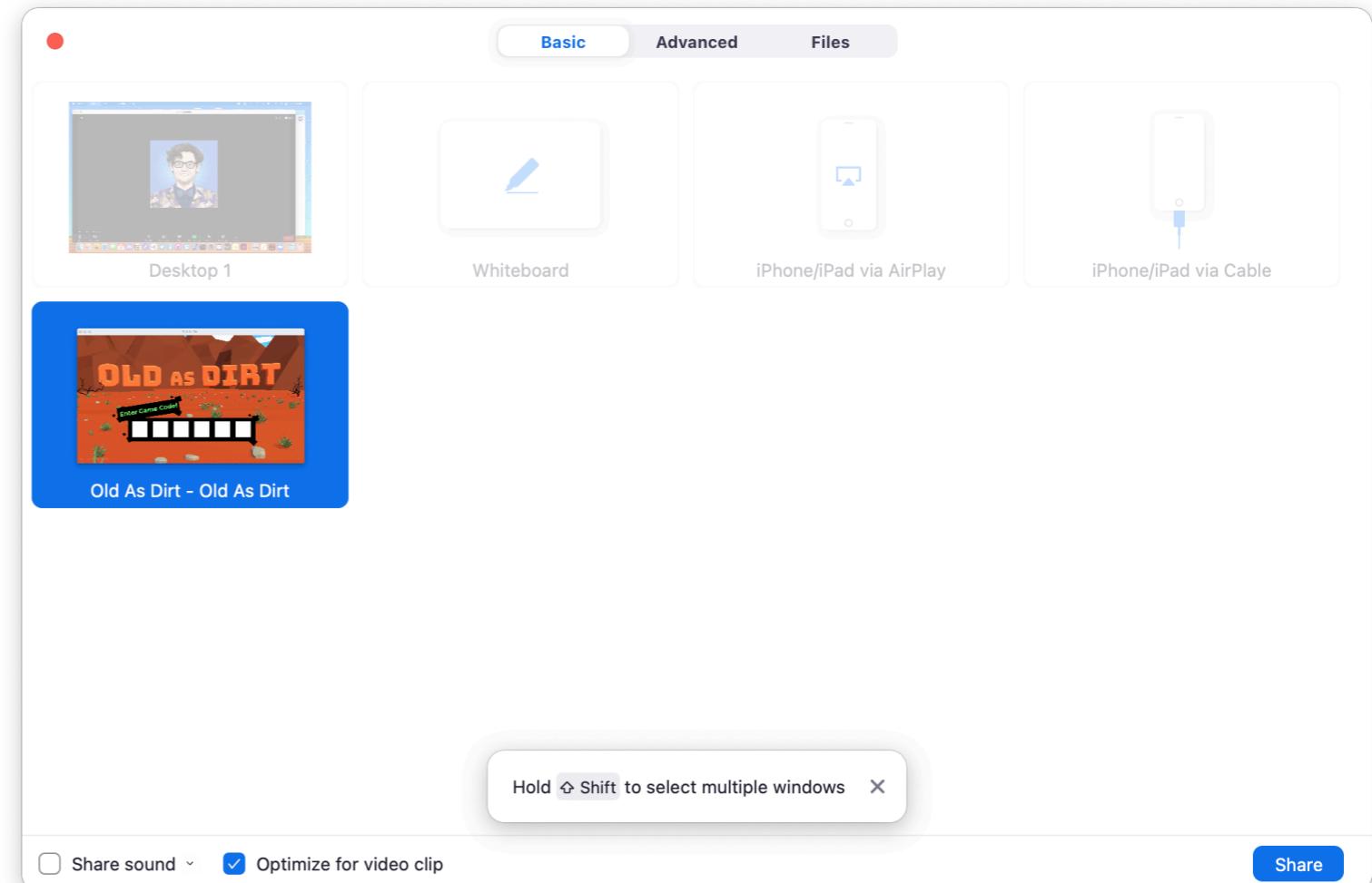


Figure 1 — Choosing to share the Old as Dirt Window in Zoom



Figure 2 — Old as Dirt Classroom View is shared

Safety and Privacy

Data Collection

Data Collection

By design, Old as Dirt collects as little information as possible.

Beyond any information that might be collected by third-party technology used by the games, we collect/transmit no additional information beyond gameplay data.

The games neither directly solicit nor collect any personal information, such as names, emails, or similar.

Our hosting providers, including Microsoft and Azure, may have access to information including your IP address and your browser version.

Please review CoRE Learning Foundation's Privacy Policy at:

<https://www.corefoundation.com.au/gamification>

The Games
Old as Dirt Games

The Games

	Game	Complexity	Session Duration	Science and STEM themes
1	Anoxic Shock		1 to 5 minutes	Science, oxygenation, creation of iron
2	Archaean Adventure		10 to 15 minutes	Underwater exploration, black and white smokers, sensors, pH levels, ROVs.
3	Outback Trail		5 minutes	Ancient rocks, gnamma holes, banded iron formations, First Nations ingenuity.
4	Uncover		3 to 5 minutes	Resources industry, processes, complexities, procedures.
5	Coring and Exploring		5 to 10 minutes	Core sample identification, testing, experimentation.
6	Modern Mine		3 to 5 minutes	Resources industry, processes, complexities, procedures.
7	Keep it Moving		5 to 15 minutes	Logistics and transport, remote operation, supply chain and control.
8	Containing Chaos		10 to 15 minutes	Logistics, complexity in transport, supply chain and infrastructure.

Game 1

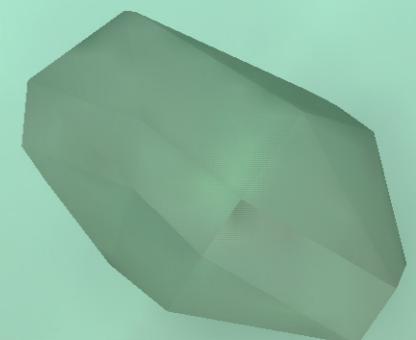
Anoxic Shock



Anoxic Shock is a fast-paced, competitive game about stromatolites.

Each stromatolite can emit oxygen to push away hostile anoxic microbes.

Anoxic Shock teaches students about the importance of photosynthesis in the formation of iron ore, and the oxygenation of the Earth's atmosphere in ancient times.



The Goal

The players must work together to push away as many hostile anoxic microbes as they can. Everyone is collaborating towards this goal. The end result is a team effort.

Starting

- 📌 The Classroom View will display a holding screen, including some simple instructions, until the [Start Game button](#) is pressed on the Teacher View. (Figure 1)
- 📌 The Teacher View will display a [Start Game button](#), a [Pause button](#), and a [Return to Lobby button](#), as well as the game code. (Figure 2)
- 📌 The Student View will be waiting for the game to start, and will display the team name and the game code.



Figure 1 — instructions are displayed until the Teacher presses Start Game.

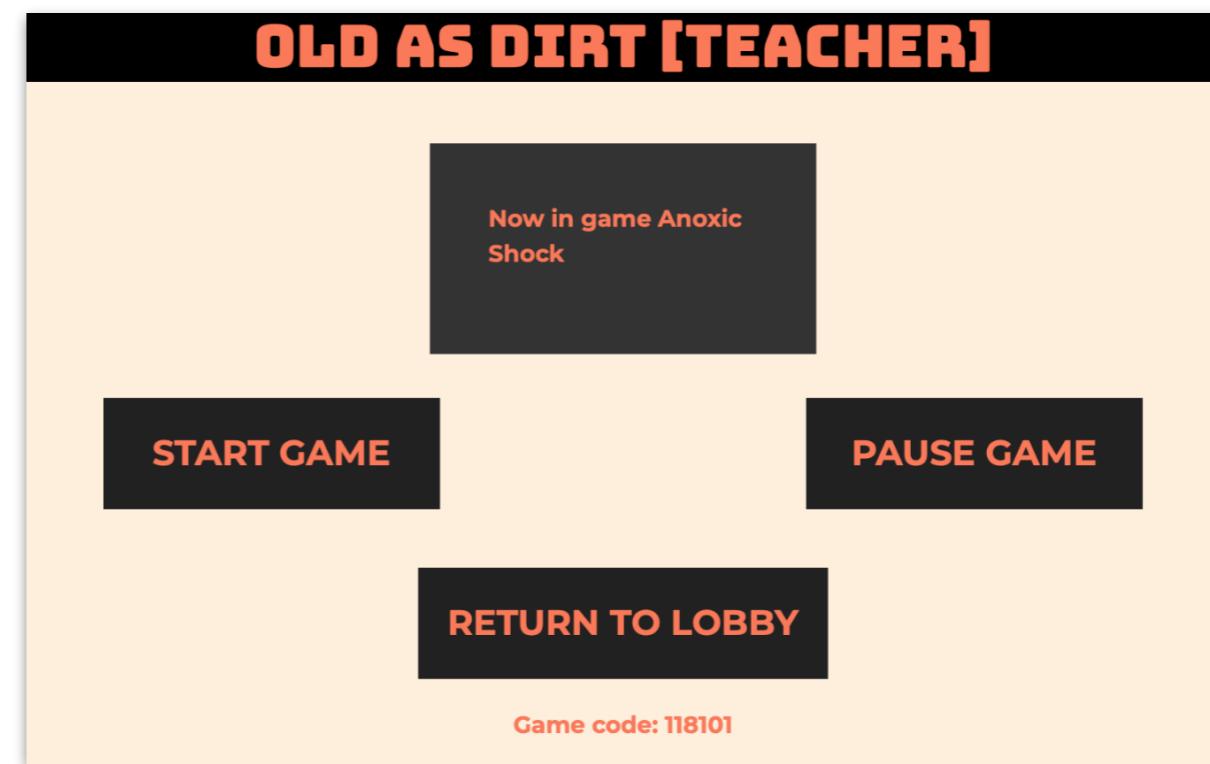


Figure 2

Gameplay

- On the Classroom View, anoxic microbes will move towards the stromatolite at the middle from a variety of directions (corresponding to the player count: 6, 7, or 8).
- Each Student View will have the ability to emit oxygen from the stromatolite that it controls.
- The student players must coordinate to emit oxygen at the appropriate times, from the appropriate angles, to disrupt the anoxic microbes as much as possible.

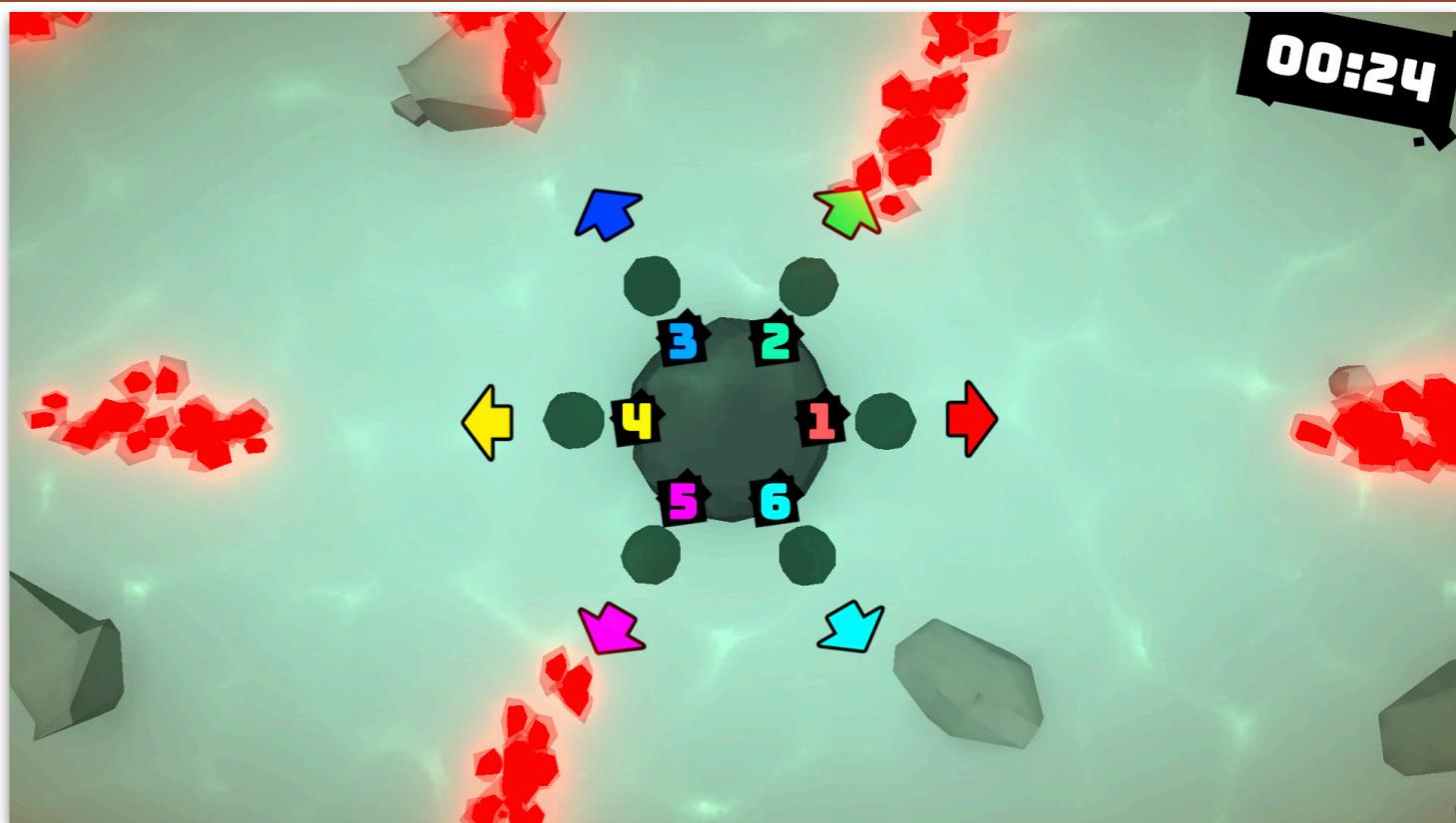


Figure 1 — anoxic microbes (red) on the way towards 1, 2, 3, 4, and 5.

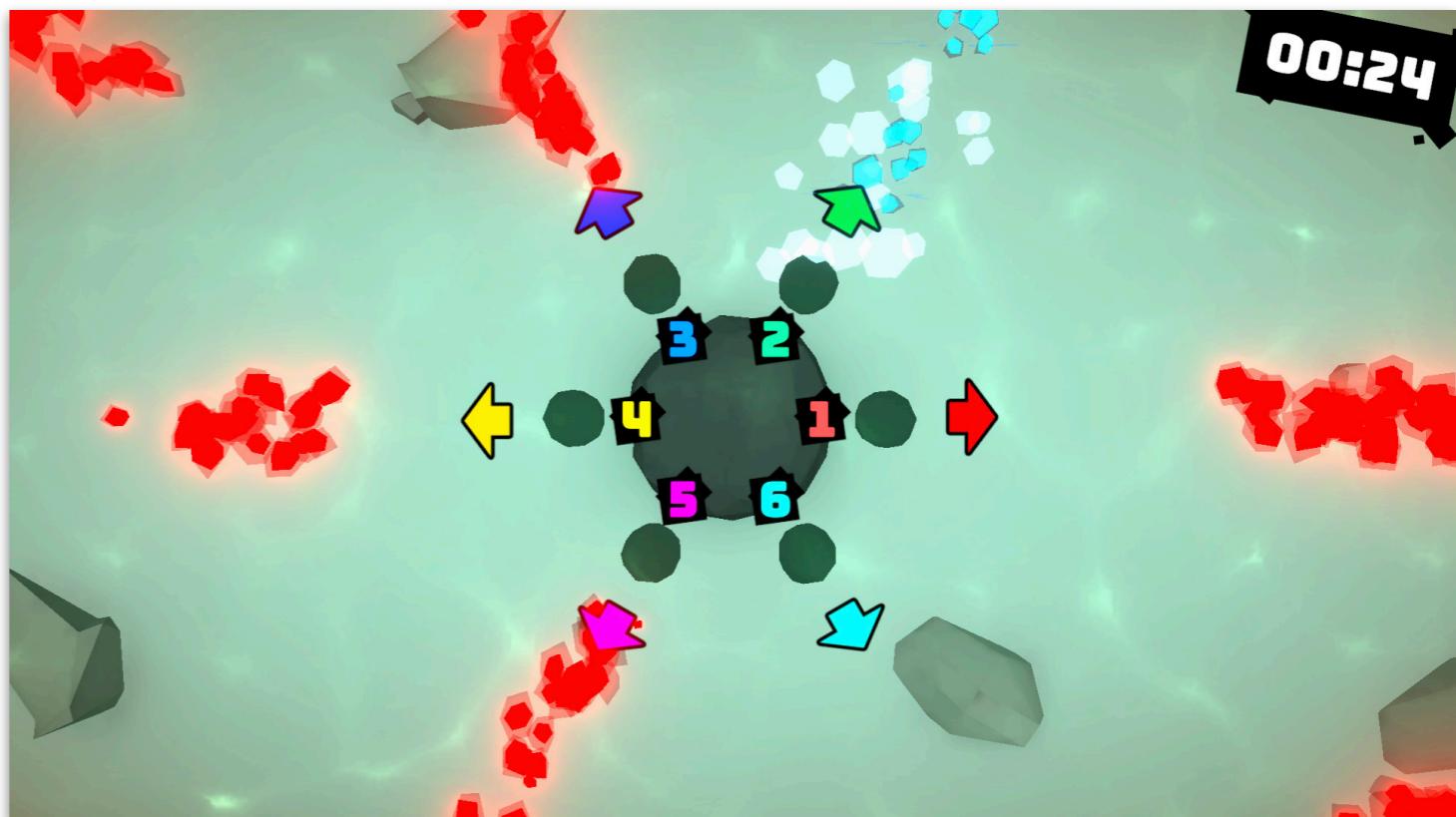


Figure 2 — 2 emits oxygen from its centre, pushing away anoxic microbes.

Gameplay

- 📌 The Student View can emit oxygen from the centre of the stromatolite they control, or from its left, or its right.
- 📌 Each Student View has a Puff O₂ Left button, a Puff O₂ Right button, and a Puff O₂ Centre button.
- 📌 The direction O₂ is puffed is relative to each stromatolite. (Figure 3)
- 📌 Each stromatolite (and therefore each Student View) has its own unique centre, and then a left (which overlaps its neighbour's right) and a right (which overlaps its neighbour's left). (Figure 3)



Figure 1 — anoxic microbes (red) on the way towards the centre of 4 and 1

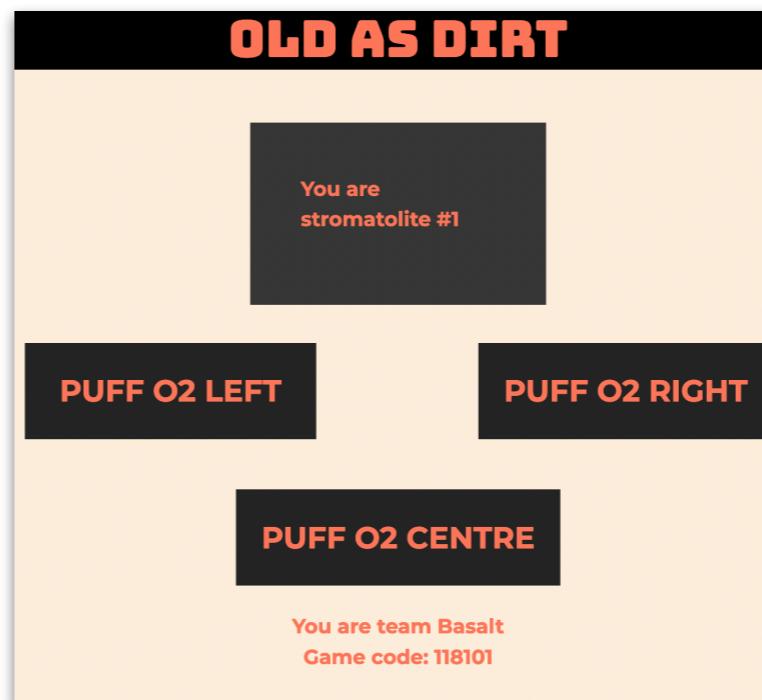


Figure 2 — a Student View

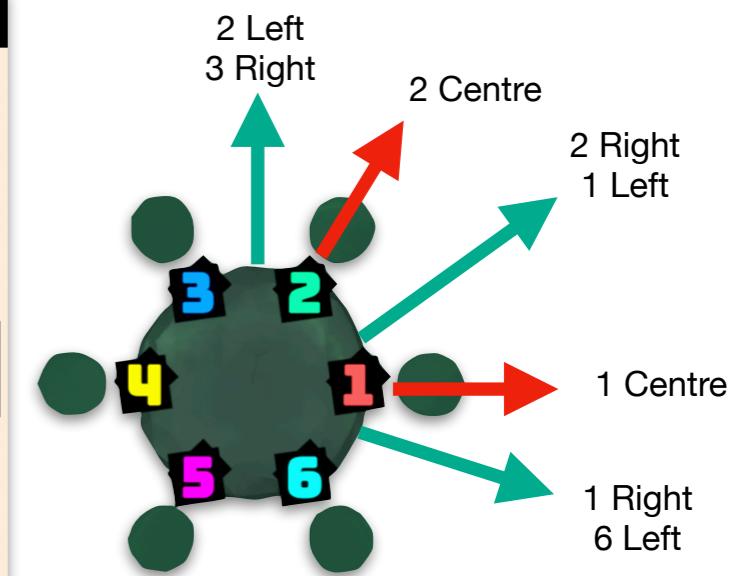


Figure 3 — example directions

Gameplay Notes

- Once a game concludes, a summary is shown, showing how well the group did at repelling the anoxic microbes. (Figure 1)
- During the game, any stromatolite can emit oxygen at any time (left, centre, or right), even if no anoxic microbes are approaching.



Figure 1 — at the end of a game a summary is shown.



Figure 2 — 2 is emitting from its centre, and 6 from its left.

Game 2

Archaean Adventure



In Archaean Adventure, students are controlling stations on a submarine. The submarine is trying to find underwater black smokers and white smokers.

The whole group must collaborate to drop probes near smokers to get points. The game is won if all the smokers are marked by probes.

The game highlights the science around black and white smokers, including acidity, alkalinity, temperature, various chemicals, and life form readings.



The Goal

The goal of the game is to collectively mark all of the smokers (black and white) in the level using probes. Each marked smoker gains the whole class a point.

Gameplay

- 📌 Each Student View controls a station on a submarine.
- 📌 The stations on the submarine are: Helm, Science, Engineering, Ops, Remote-Operated Vehicle (ROV) A, ROV B, ROV C, and ROV D.
- 📌 The number of Student Views connected to the game affects which stations are present. (Figure 1).
- 📌 Each station provides a different set of actions in the Student View. These are listed, per-Station, on the following pages.

6 Players: Helm, Engineering, Ops, ROV A, ROV B, ROV C

7 Players: Helm, Engineering, Ops, ROV A, ROV B, ROV C, ROV D

8 Players: Helm, Engineering, Ops, Science, ROV A, ROV B, ROV C, ROV D

Figure 1 — the stations available, depending on player count.

Engineering Station

- 📌 The Engineering Station Student View is in charge of allocating power to the various submarine systems.
- 📌 The Engineering Station can choose to Increase or Decrease Power to Helm, Ops, or Science.
- 📌 Each of the things that the Engineering Station can increase or decrease power to maps to one of the Stations that a Student View controls.
- 📌 Increasing or decreasing power to a specific Station will impact what that Station has available to do.
- 📌 With more power the the submarine moves faster (Helm), the sonar has increased range (Ops), and can have more sensors turned on at once (Science).

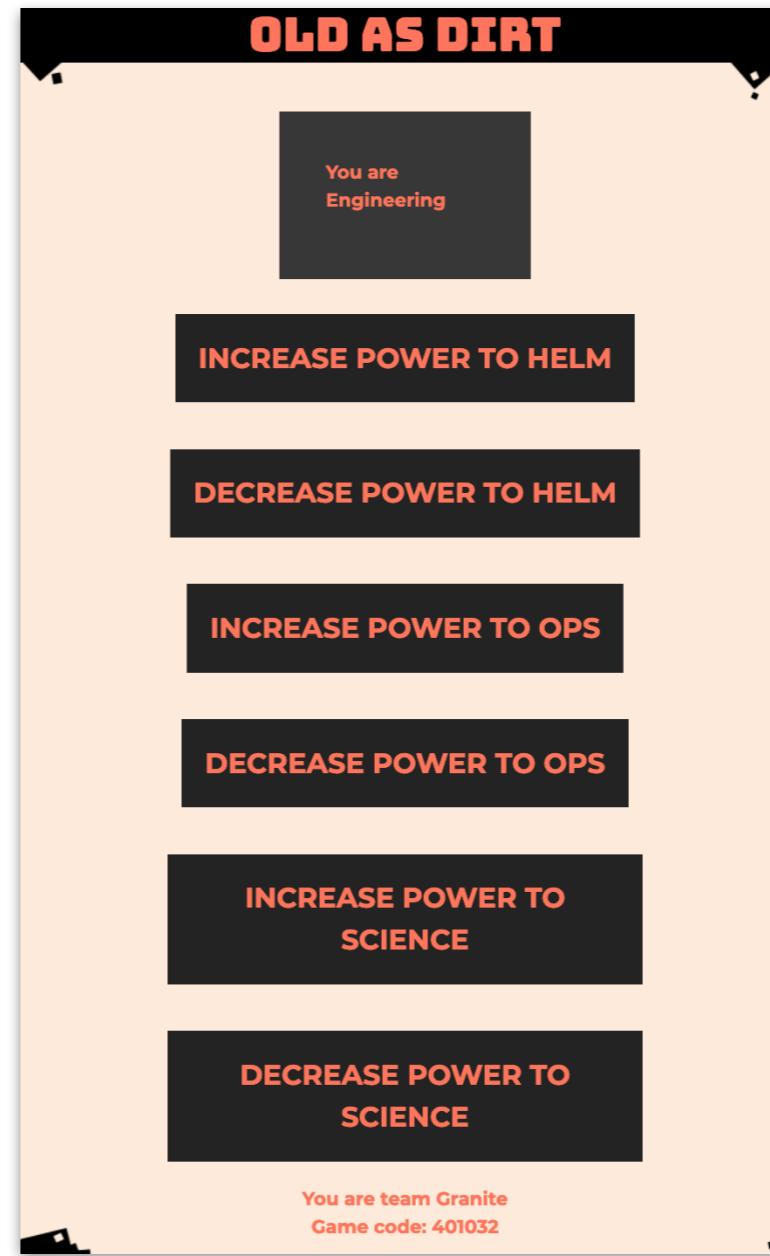


Figure 1 — Engineering Student View.



Figure 2 — power level on Classroom View. From left to right: Helm, Ops, and Science.

Helm Station

- 📌 The Helm Station Student View is in charge of moving the submarine.
- 📌 The Helm Station can choose to Turn Left, Turn Right, or Accelerate.
- 📌 Turn Left will turn the submarine 90 degrees to the left from its current position
- 📌 Turn Right will turn the submarine 90 degrees to the right from its current position.
- 📌 Accelerate will move the submarine forward, relative to its current facing.
- 📌 The Helm Station requires power to operate. The more power assigned to the Helm, the further it can move in one go.

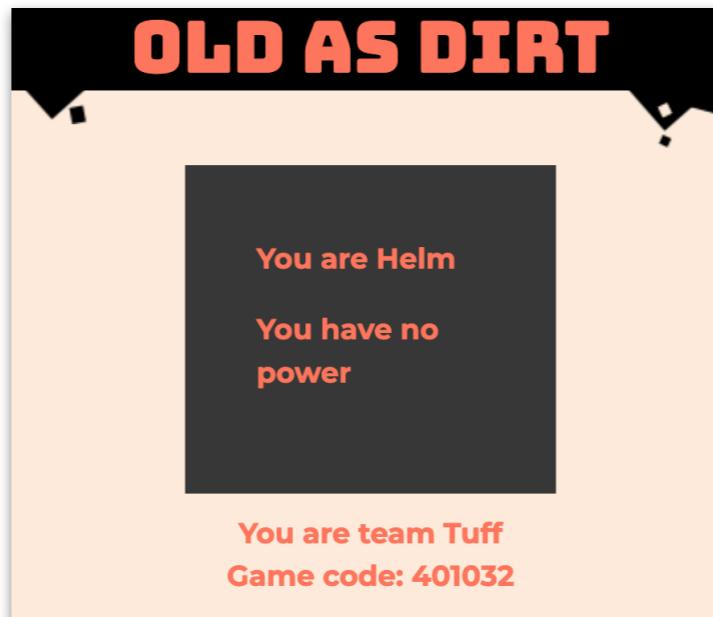


Figure 1 — the Helm with no power.

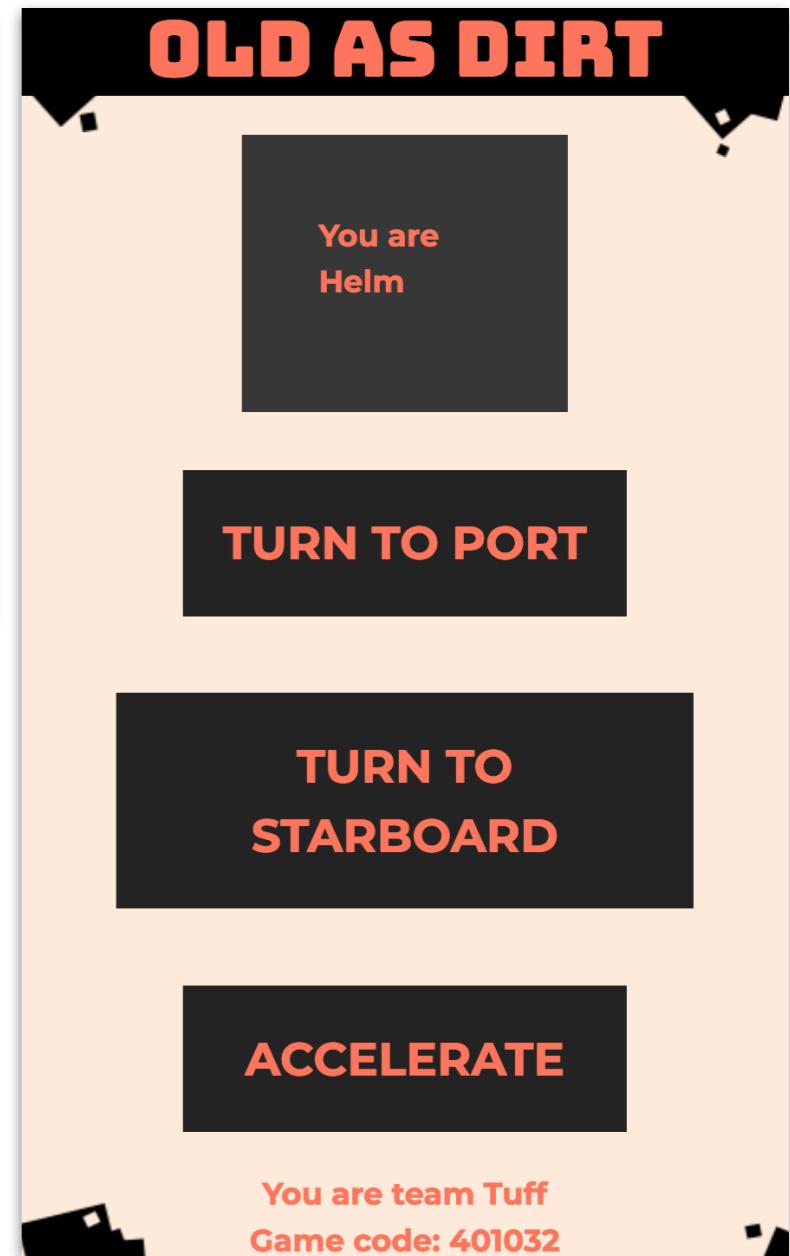


Figure 3 —the helm has power.



Figure 2 — 1 unit of power allocated to helm.

Ops Station

- 📌 The Ops Station Student View is in charge of the submarine's sonar, probe release, and ROV docking and undocking.
- 📌 The Ops Station can choose to Ping, Deploy a Probe, Dock/Undock ROVs.
- 📌 Ping will use the submarine's built-in sonar to release a sonar pulse, temporarily revealing the position of nearby rocks in the Classroom View. (Figure 1)
- 📌 Deploy Probe will release a probe. If the submarine is near a smoker when it deploys a probe, the team will gain a point.
- 📌 Dock/Undock ROVs will release any ROVs attached to the submarine, or dock any ROVs nearby that are not docked.

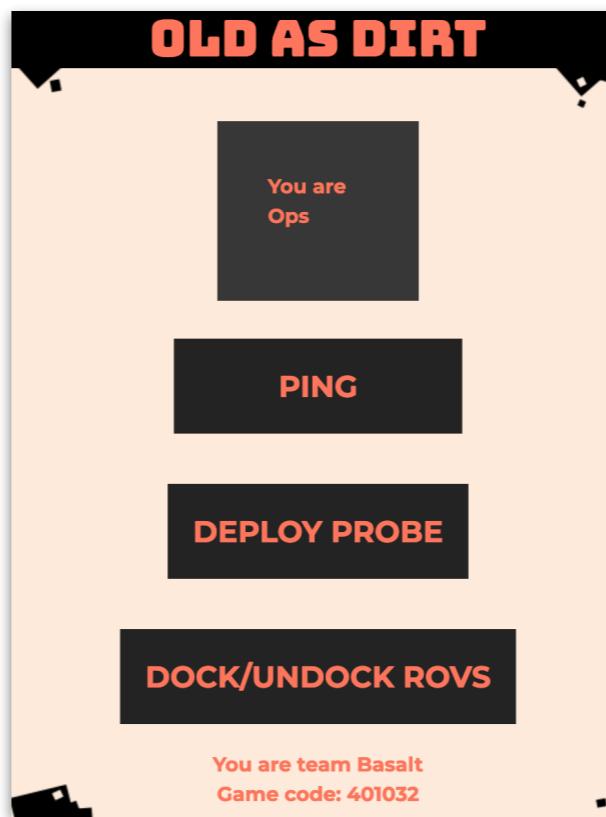


Figure 1 — Ops Student View.

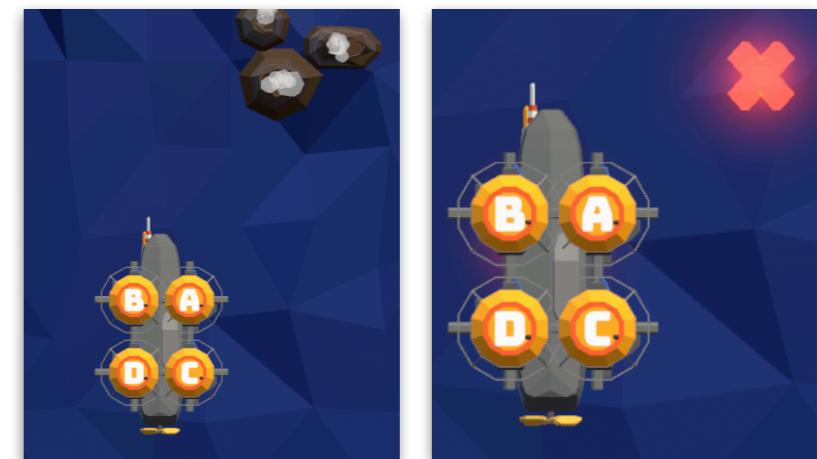


Figure 2 — probe reveals smoker (left), and doesn't (right).

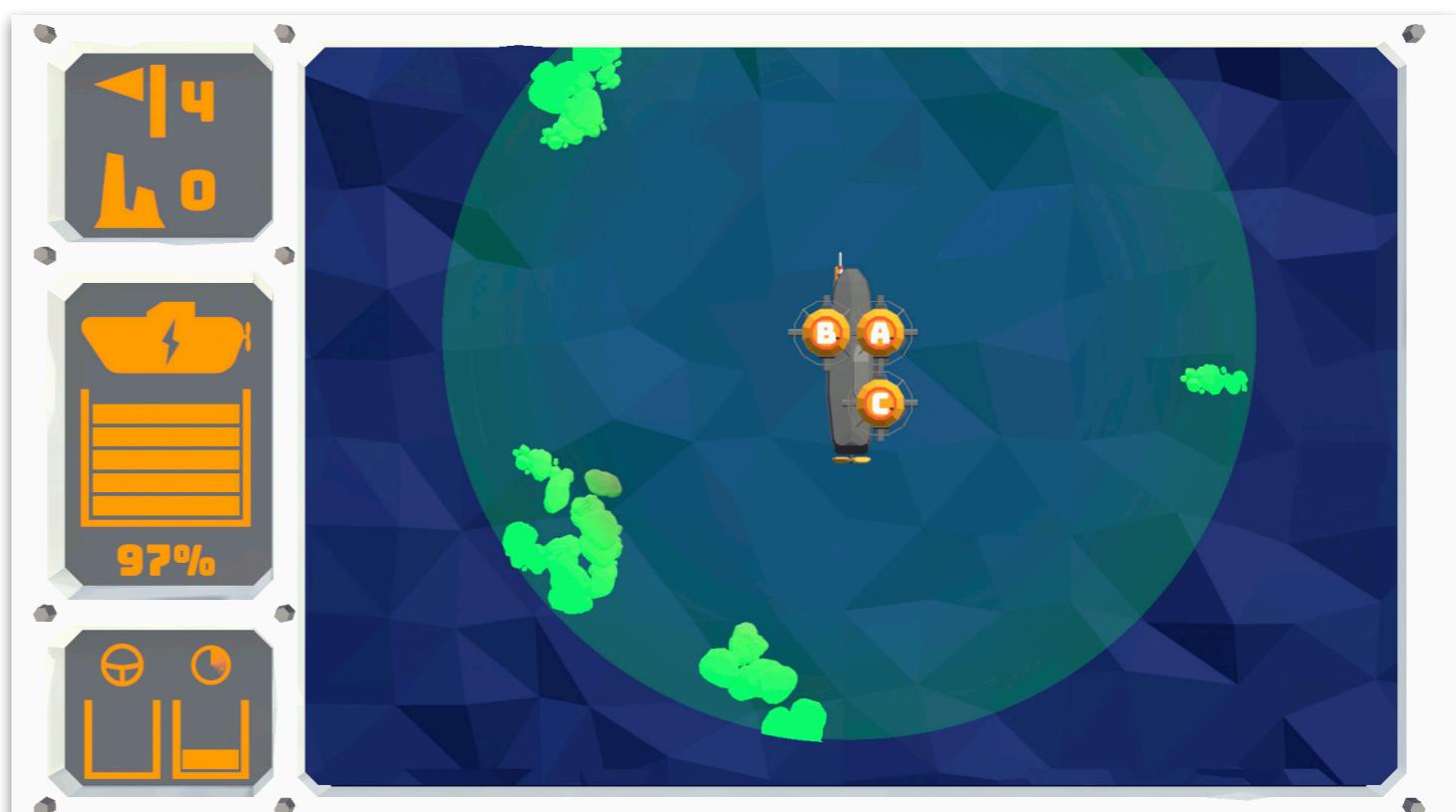


Figure 3 — The submarine pings, and nearby rocks are revealed.

Science Station

- 📌 The Science Station Student View is in charge of the submarine's sensors: pH, temperature, chemical, and life.
- 📌 The Science Station can choose to Toggle pH Sensor, Temperature Sensor, Chemical Sensor, or Life Sensor.
- 📌 Toggle pH Sensor indicates the acidity/alkalinity of the water surrounding the submarine.
- 📌 Toggle Temperature Sensor indicates the temperature of the surrounding water.
- 📌 Toggle Mineral Sensor indicates the presence of nearby relevant chemicals.
- 📌 Toggle Life Sensor indicates the presence of nearby relevant life-forms.

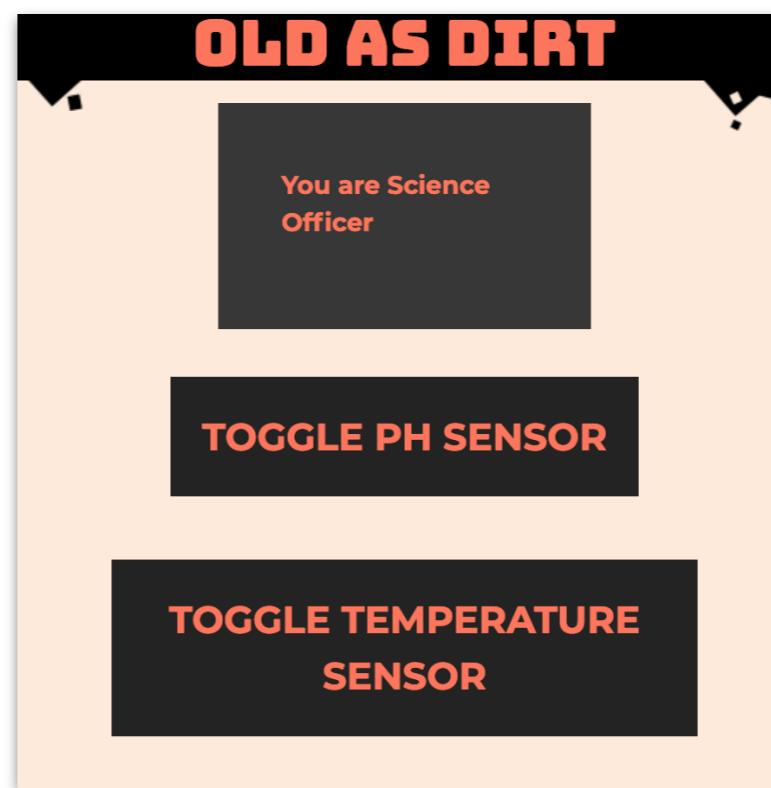


Figure 1 — Science Student View.

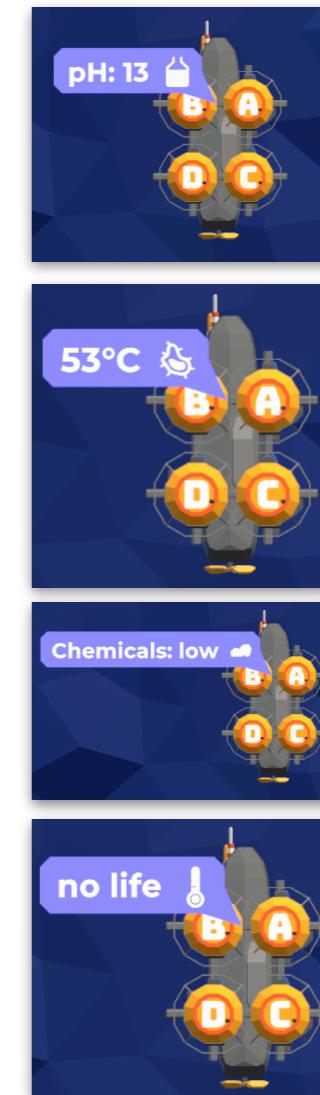


Figure 2 — the sensors.

ROV Operator Station

- 📌 The ROV Operator Station Student View is in charge of operating one of the ROVs.
- 📌 There may be 3 ROVs (A, B, C) or 4 ROVs (A, B, C, D), depending on the amount of Student Views connected.
- 📌 The ROV Operator Station can move the ROV left, right, up, and down, or toggle the ROVs sensor.
- 📌 Each ROV has a different single sensor, drawn from the sensor types present on the submarine.
- 📌 A ROV cannot perform any of its actions while its sensor is on, or if it is docked to the submarine. It must be undocked.
- 📌 When a ROV moves, if it hits a rock, it will bounce off and returned to where the move started.

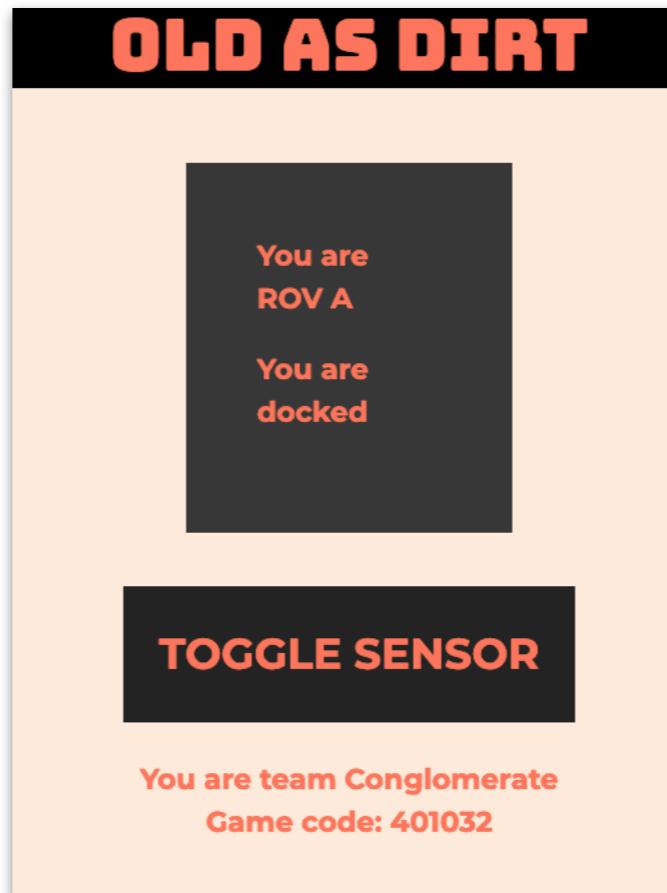


Figure 1 — ROV Student View (docked)

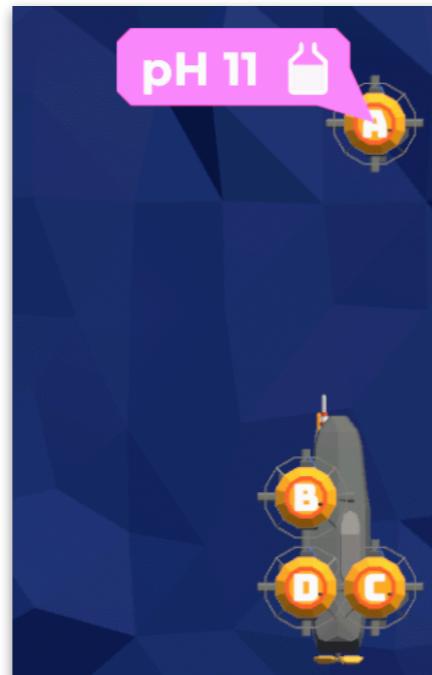


Figure 3 — ROV has moved up, then turned on its sensor.

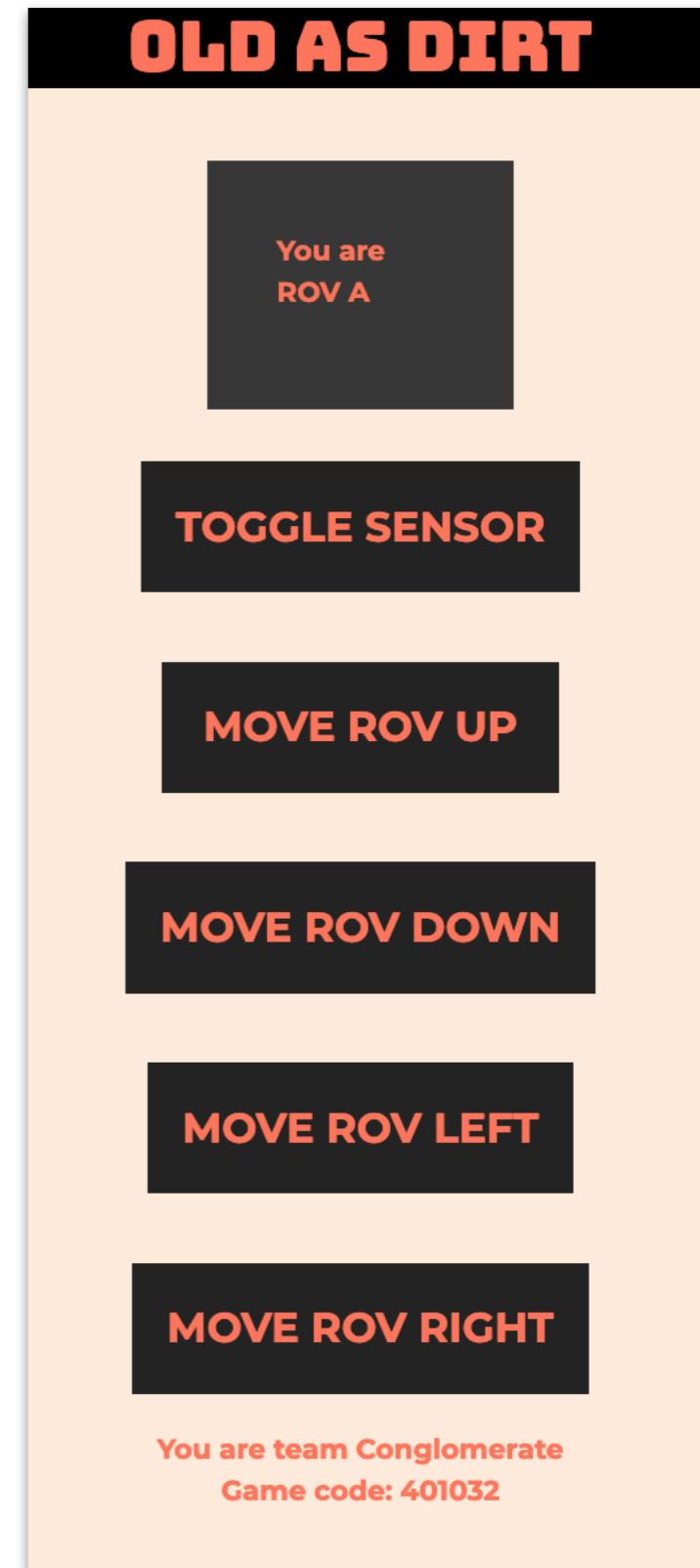


Figure 2 — ROV Student View (undocked)

Gameplay

- 📌 Archaean Adventure requires significant collaboration between the players.
- 📌 The goal is to find 4 smokers present in a level, using the probes you have.
- 📌 If you run out of probes, the game ends in a loss.
- 📌 If you run out of power the game ends in a loss. Power is used for each ping, move forward, turn, probe launch, and sensor toggle.
- 📌 Undocking/docking ROVs, and any actions of the ROVs themselves, does not use power.
- 📌 The Teacher View will let the teacher know if dropping a probe at the submarine's current location will reveal a smoker.
- 📌 The Teacher View will also indicate direction to the nearest smoker.



Figure 1 — a ROV has a pH sensor.

Gameplay

- 📌 The water contains rocks. The submarine can collide with rocks when moving.
- 📌 To avoid rocks, the Ops Station can Ping, temporarily revealing the location of rocks using sonar.



Figure 1 — when any Student View sends a guess, the game ends.



Figure 2 — after a guess, whether it was correct or not is displayed.

Gameplay

- 📌 To locate smokers, the ROVs and the Science Station need to use their sensors to scan the environment.
- 📌 The information provided by sensors will help determine whether the a ROV or the submarine is close to a smoker.
- 📌 When near a smoker, the water will be very acidic ($\text{pH} < 5$) or alkaline ($\text{pH} > 9$), there will be simpler lifeforms, there will be rich minerals, and the water is likely to be hot.
- 📌 When not near a smoker, the water will be pH neutral (around 7), there will be more complex life, less minerals, and the water will be less hot.
- 📌 The Teacher View will provide clear hints to the teacher on the location of smokers.



Figure 1 — ROV sensors active, at various locations.



Figure 2 — a smoker is located, a smoker is not located, and sensors are on.

Gameplay

- 📌 The game will end when the submarine runs out of probes without finding all 4 smokers.
- 📌 The game will end if the submarine runs out of battery power (many actions consume one unit of power).
- 📌 The game will end in success if the group locates 4 smokers.



Figure 1 — running out of probes.

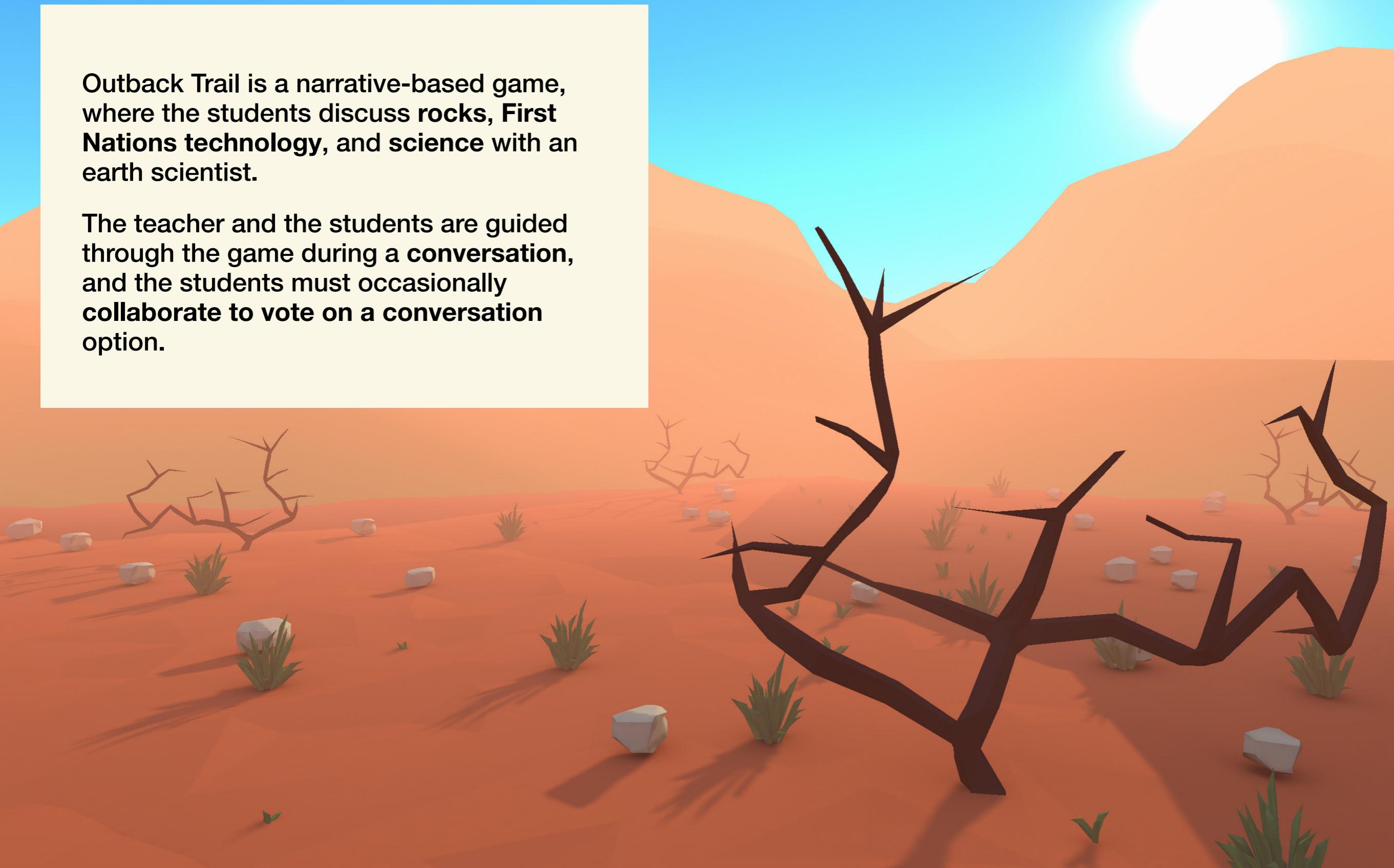
Game 3

Outback Trail



Outback Trail is a narrative-based game, where the students discuss rocks, First Nations technology, and science with an earth scientist.

The teacher and the students are guided through the game during a **conversation**, and the students must occasionally **collaborate to vote on a conversation option**.



The Goal

The students must work with the teacher, and with each other, to vote on options and engage with the conversation. This game is non-competitive, narrative-based, and has no score. The goal is simply to get to the end together.

Gameplay

- 📌 The game is a conversation with an Earth Science, on location somewhere in the outback.
- 📌 Lines are delivered on the Classroom View. (Figure 1)
- 📌 The Teacher View is used to progress to the Next Line, using the Next Line button, if there is no choice of line.

NEXT LINE

- 📌 Some parts of the conversation will display extra imagery. (Figure 2)



Figure 1 — the Earth Scientist speaking, on the Classroom View.



Figure 2 — a conversation with an image included.

Gameplay

- 📌 If there is a choice of line, the students can vote using the Student View, or the Teacher View can override and make a choice for the class.
- 📌 The line with the most votes will be chosen if the teacher does not override.
- 📌 Students can vote as to which item's conversation they have. (Figure 2)
- 📌 The Teacher View can override, and choose an option for the class. (Figure 3)

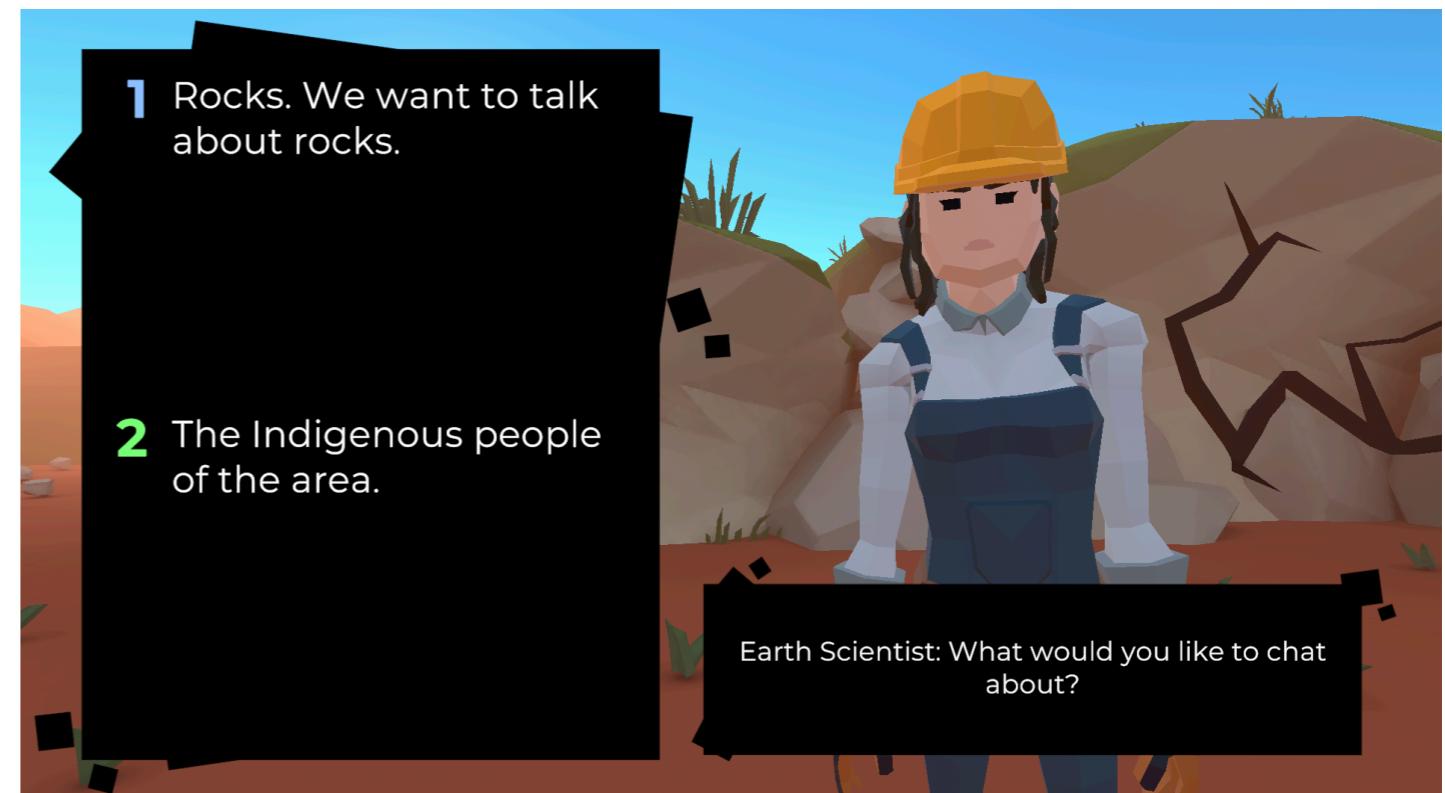


Figure 1 — a choice displayed in the Classroom View.

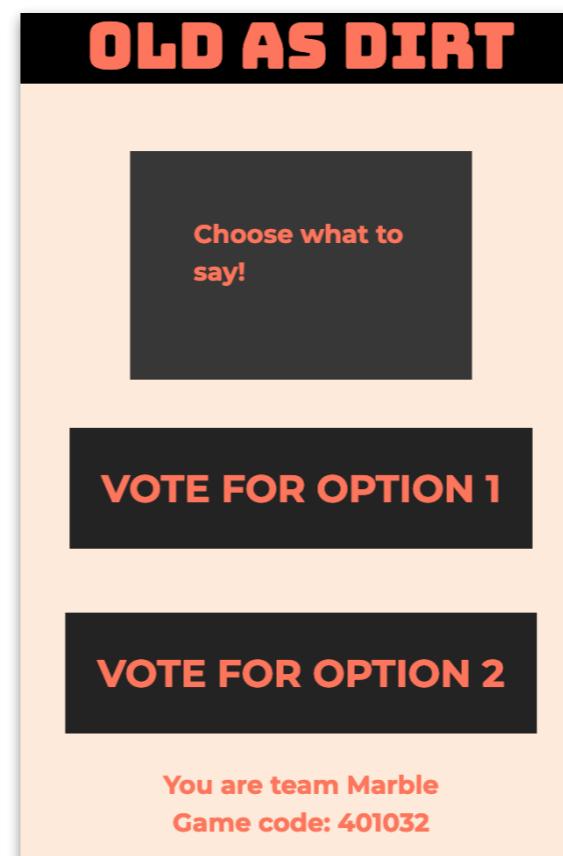


Figure 2 — student choice

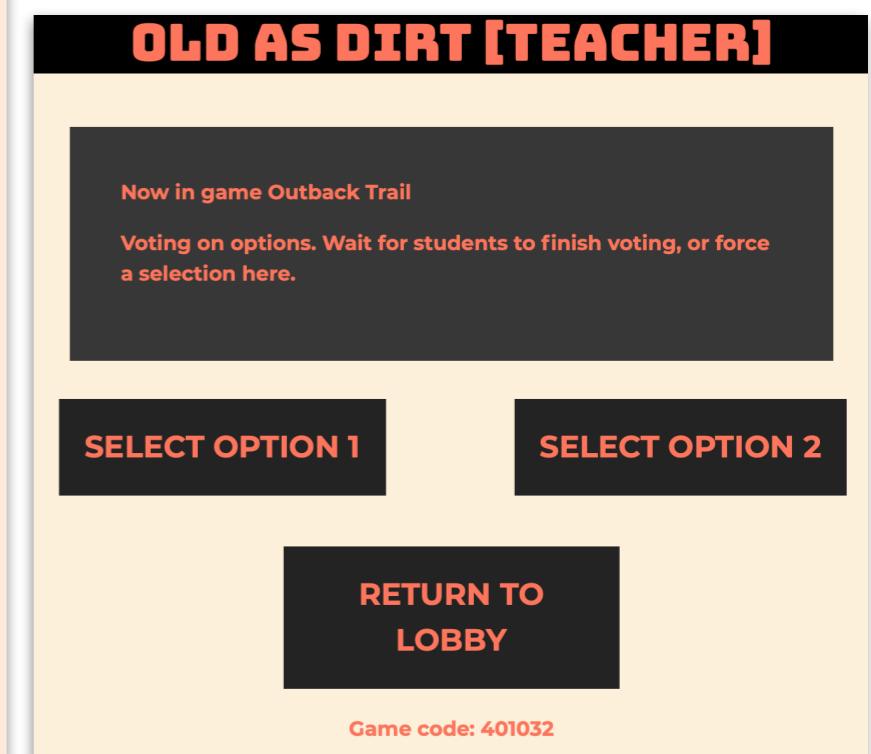


Figure 3 — Teacher View choice override.

Game 4

Uncover



Uncover is a narrative-driven game, where students must collaborate to complete a checklist of conversations with people essential for the starting of a new mine.

The teacher and the students work together to complete the 4 randomly chosen items on the checklist, by positively completing a conversation per-item.

-
- 1 Talk to Chief Geologist
- 2 Talk to Tenement Officer
- 3 Talk to Community Liason Officer
- 4 Talk to Environment Scientist

The Goal

Students collectively choose the path through a short conversation for each of the 4 items on a checklist. Each conversation is relevant to the starting of a new mine. The end state is the completion of 4 conversations. There is no failure state.

Gameplay

- 📌 The game involves completing a 4 item checklist. (Figure 1)
- 📌 The checklist items are randomly selected from a pool of 12 items for each game.
- 📌 To finish the game, students must have 4 short conversations (one for each item).
- 📌 Having the relevant conversation checks the item off the list.
- 📌 Students can vote as to which item's conversation they have. (Figure 2)
- 📌 The Teacher View can override, and choose an option for the class. (Figure 3)

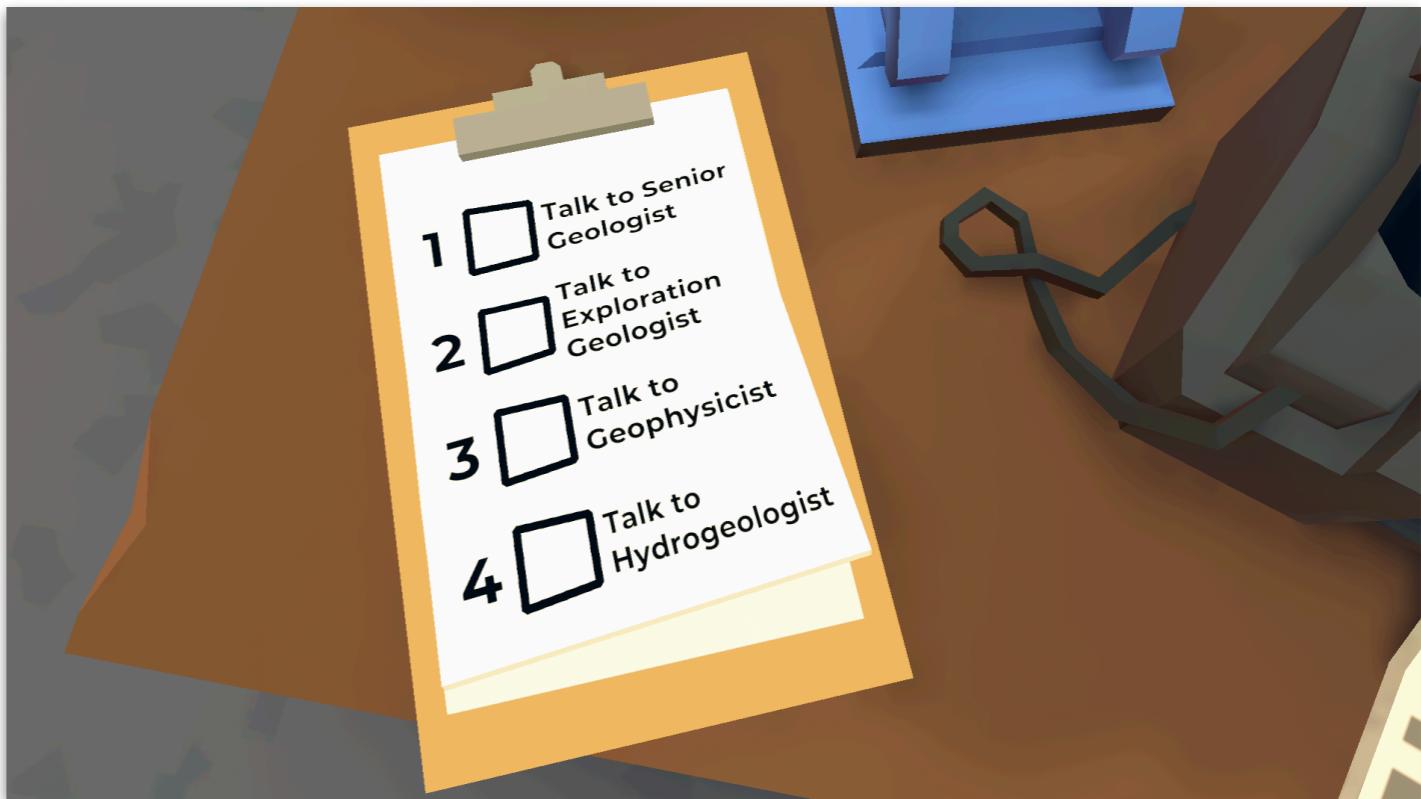


Figure 1 — the checklist on the Classroom View

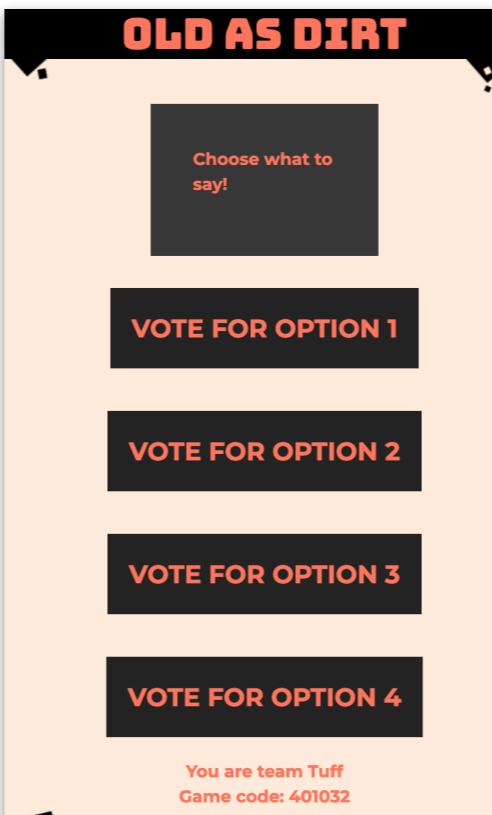


Figure 2 — Student View

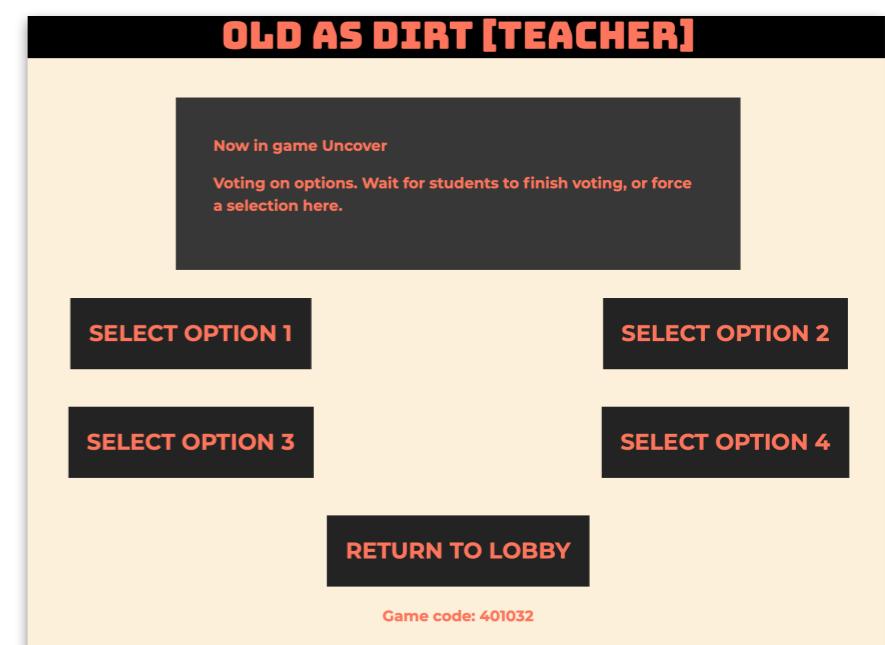


Figure 3 — Teacher View

Gameplay

- For each conversation, a character will appear on the Classroom View, and talk via text to the class.
- The Teacher View is used to progress to the Next Line, using the Next Line button, if there is no choice of line. (Figure 1)

NEXT LINE

- If there is a choice of line, the students can vote using the Student View, or the Teacher View can override and make a choice for the class.
- The line with the most votes will be chosen if the teacher does not override.



Figure 1 — an active conversation in the Classroom View



Figure 2 — choices during a conversation in the Classroom View

Gameplay

- 📌 When a conversation is completed, a check mark will appear next to its entry on the checklist. (Figure 1)
- 📌 When all conversations are completed, the Classroom View will display checkmarks next to all four. (Figure 2)
- 📌 When all conversations are completed, the Teacher View can be used to Return to Lobby via the button there. That marks the end of the game.
- 📌 The teacher may wish to linger on the completed checklist to discuss things with the class.
- 📌 After a checkmark is added to an entry, Student Views can no longer vote for that entry, but the Teacher View can always override and cause them to re-enter a conversation they'd previously completed.

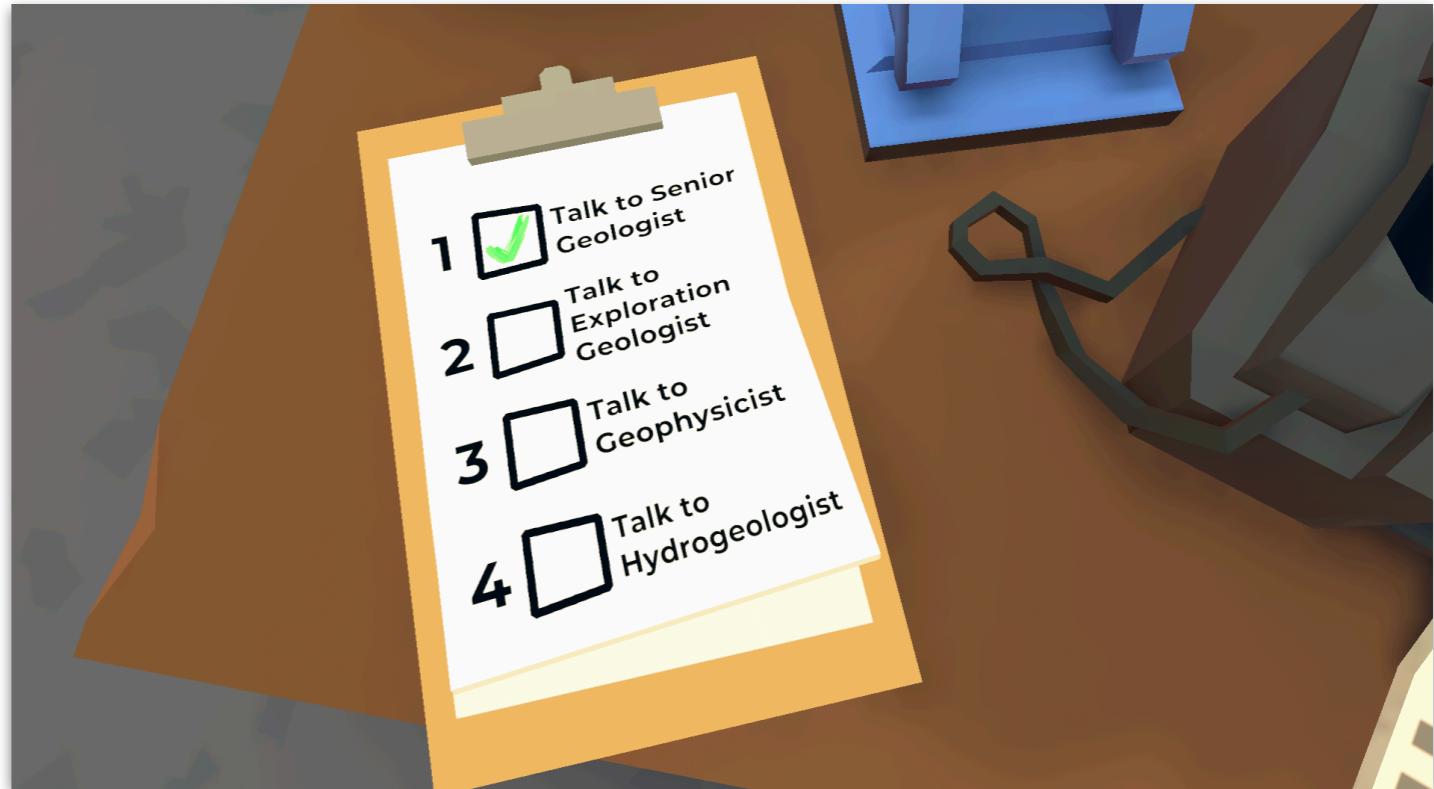


Figure 1 — one of the items is completed

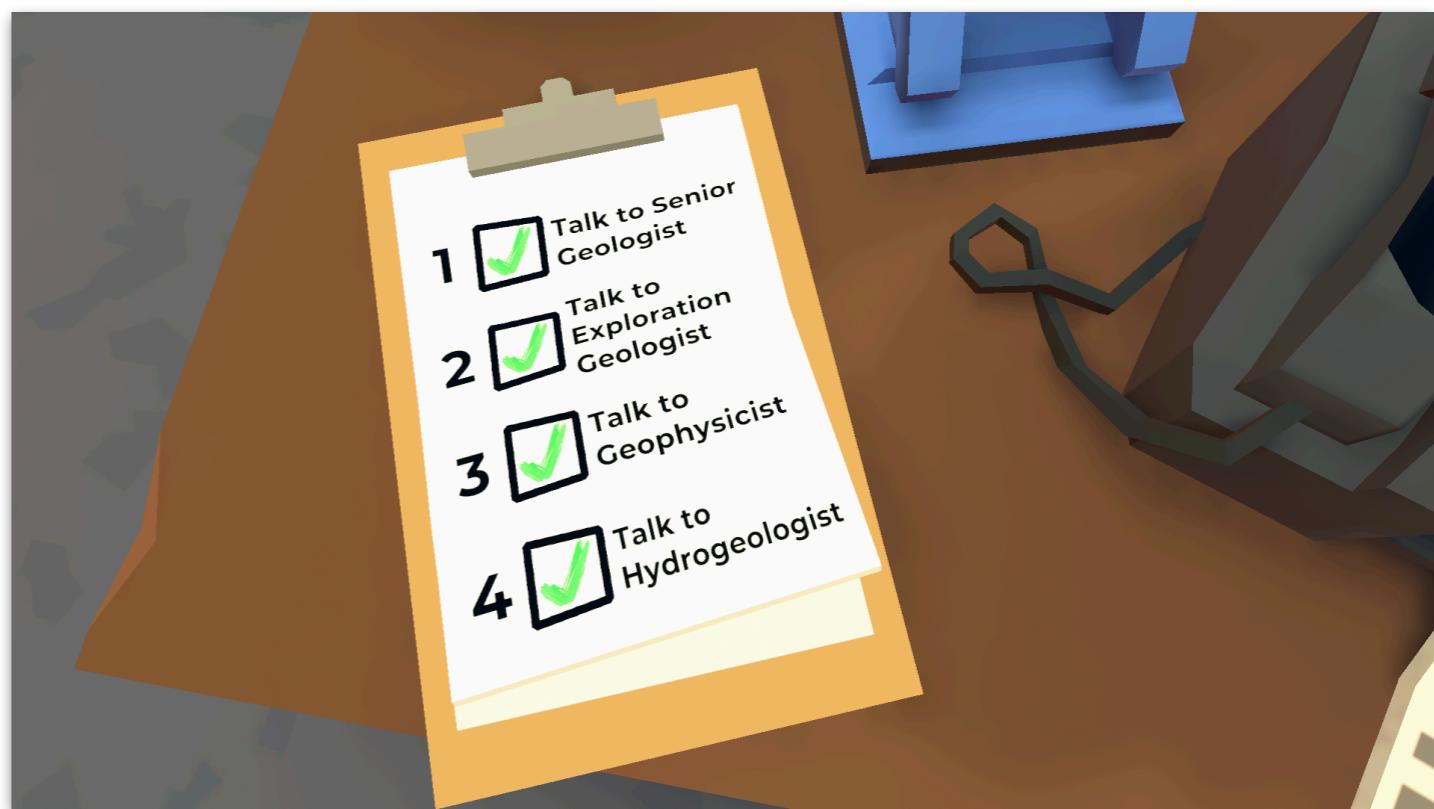


Figure 2 — a fully completed checklist

Gameplay

- 📌 If a conversation is completed and the team is returned to the checklist via on the Classroom View, but no checkmark appears, that means the conversation was not successful, and the students should consider their choices and try it again.
- 📌 The possible conversations for Uncover, arising from the checklist are listed in Table 1.

Conversation

Finding prospective ground for exploration

Lodging exploration licences

Involving Aboriginal Traditional Owners

Relationships with other entities

Chatting to an Environmental Scientist

Discussing things with a Senior Geologist

Conversing with an Exploration geologist

Chatting with a Geophysicist

Contracts with a Contracts Manager

Hydrogeology matters

Discussing Metallurgy

Impact on the community

Game 5

Coring and Exploring



5

Coring and Exploring

Coring and Exploring is a game about **core samples**.

Players are presented with different core samples—slices of subsurface material, for testing—and each player can conduct a different test on the core, with a different fact about the potential cores, and can guess which specific mineral or rock the core is.

Students must work together to deploy their tests, facts, and guess to find the identity of each core.



The Goal

Students must collectively identify the core sample being presented to the class by strategically using their guesses, tests, and facts together.

Starting

- 📌 The Classroom View will display a holding screen, including some simple instructions, until the Start Game button is pressed on the Teacher View. (Figure 1)
- 📌 The Teacher View will display a Start Game and a Return to Lobby button, as well as the game code. (Figure 2)
- 📌 The Student View will be waiting for the game to start, and will display the team name and the game code. (Figure 3)
- 📌 Pressing Start Game in the Teacher View will proceed into gameplay.



Figure 1 — instructions are displayed until the Teacher presses Start Game.

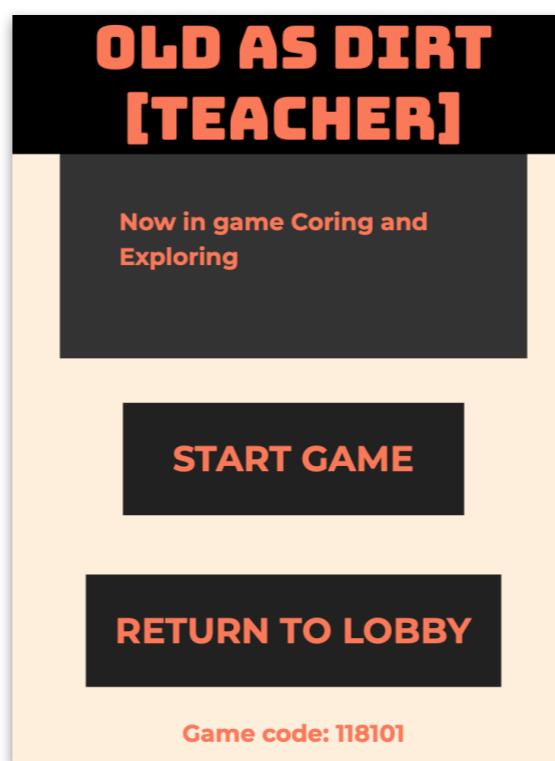


Figure 2

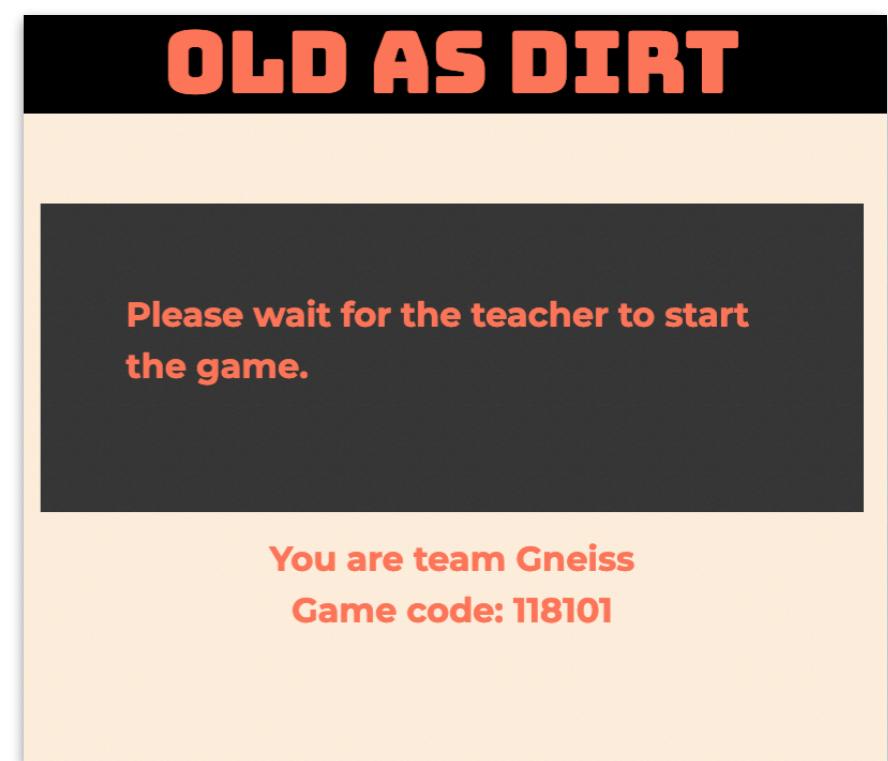


Figure 3

Gameplay

- 📌 On the Classroom View, a core is pulled onto the table, and a space for Test Results is displayed.
- 📌 As each player chooses the test shown on their Student View, the results are shown. (Figure 1)
- 📌 The players must communicate clearly and concisely with each other, using the Fact they have available, as well as the results of the Tests that have been run, to decide who should push their Guess button.
- 📌 Each Student View will display one Fact, one Test button, and one Guess button. (Figure 2)
- 📌 When a team has run their test, the Test button in their Student View will grey. (Figure 3)

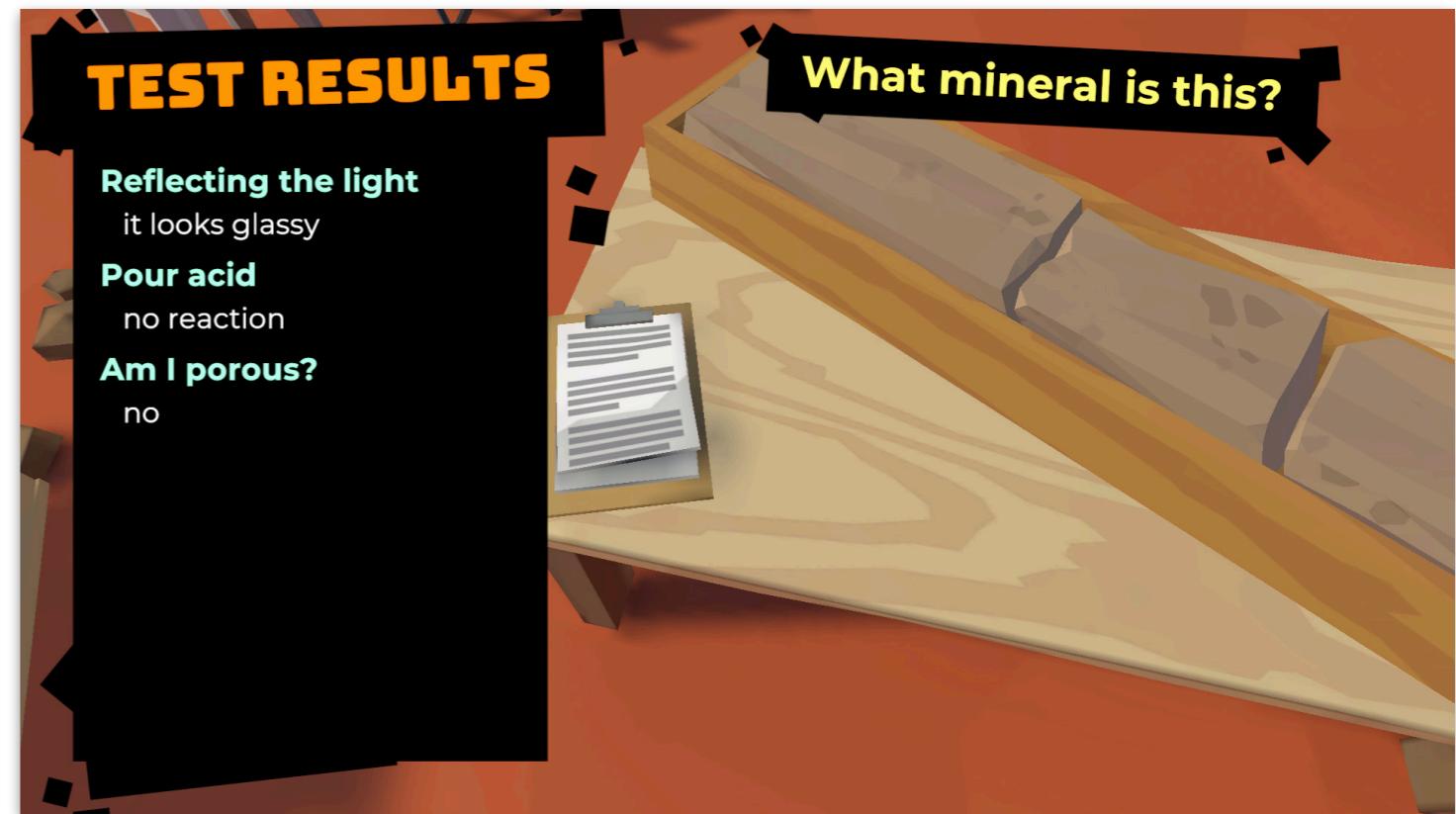


Figure 1 — the tests that have been run, and their results, appear.

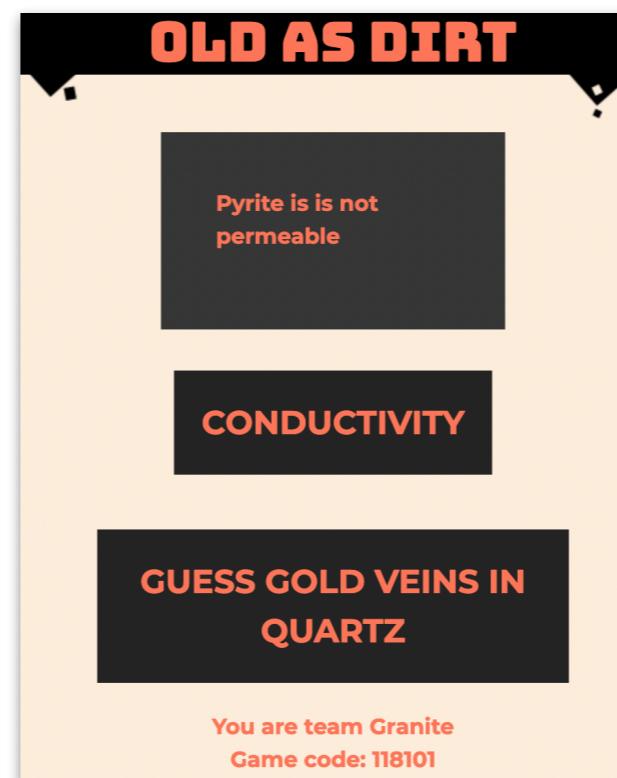


Figure 2

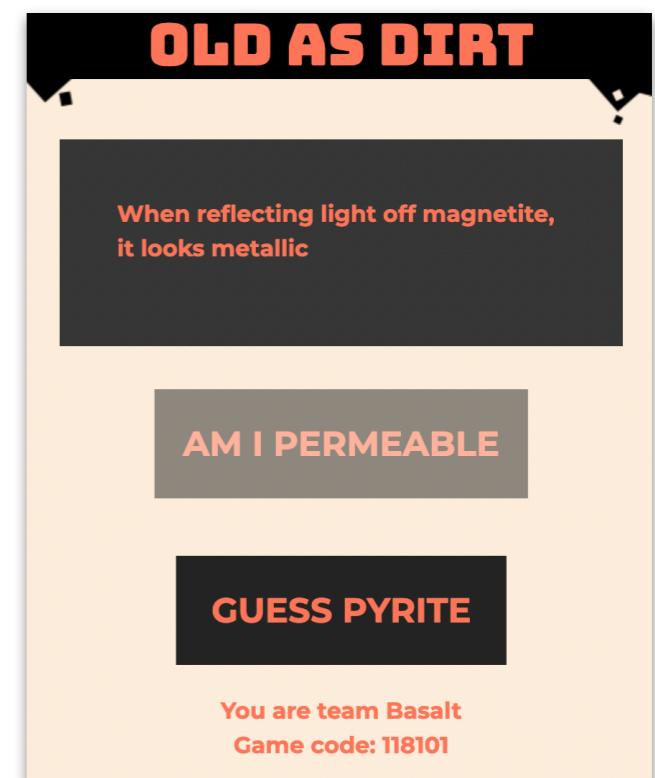


Figure 3

Gameplay

- When any player submits a guess, the round ends. (Figure 1)
- The result of the guess will be displayed. (Figure 2)



Figure 1 — when any Student View sends a guess, the game ends.



Figure 2 — after a guess, whether it was correct or not is displayed.

End of Game

- 📌 At the end of a round, the Classroom View will return to holding, waiting for the Teacher View's Next Round button to be pressed. (Figure 1)
- 📌 When the Next Round button on the Teacher View is pressed, another round will begin.
- 📌 After 3 rounds of the game, when Next Round button is pressed on the Teacher View, a game summary will be displayed. (Figure 2)
- 📌 From the game summary screen, pressing the Next Round button on the Teacher View will bring the game back to the holding instructions screen.



Figure 1

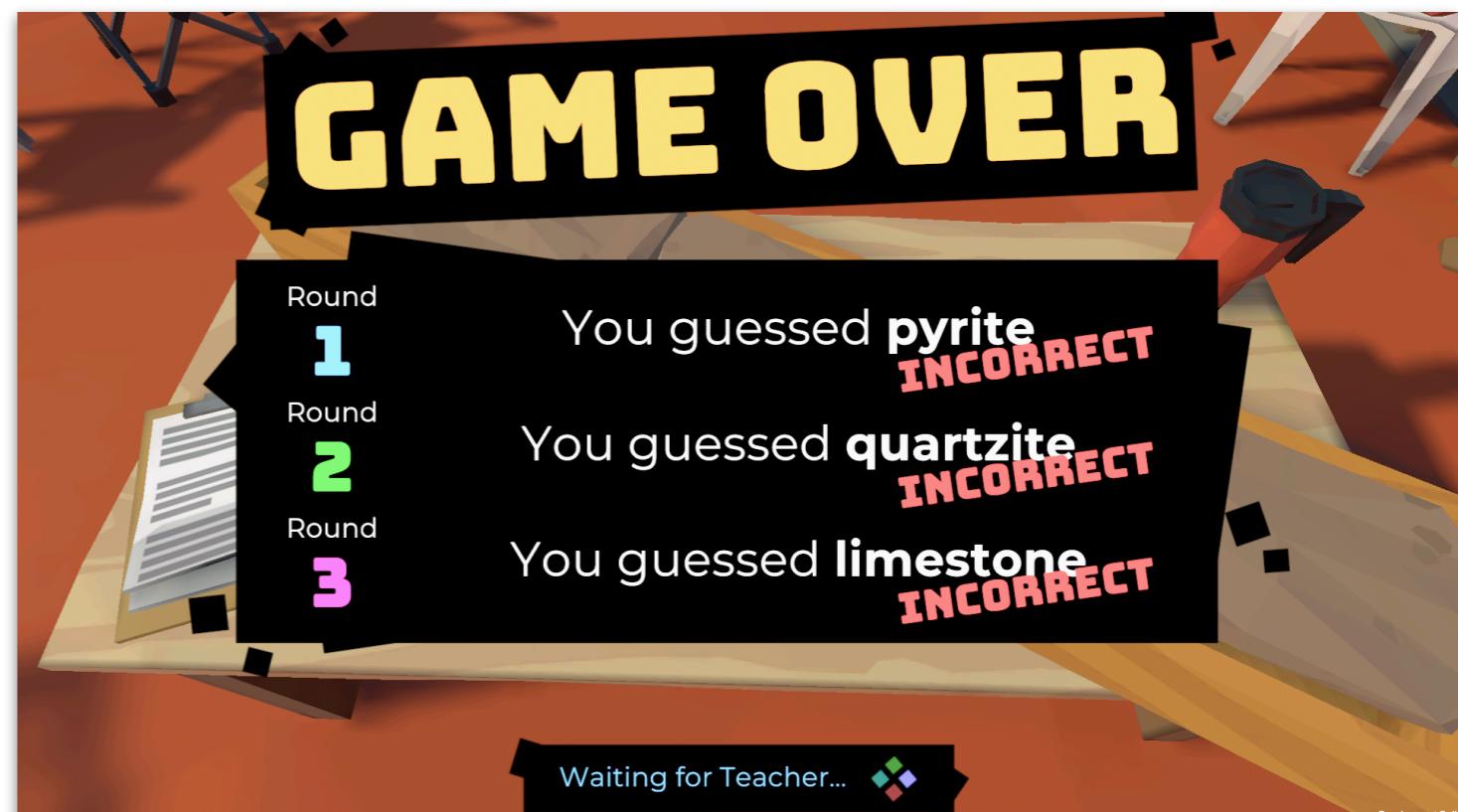


Figure 2

Game 6

Modern Mine

Modern Mine is a **conversation-driven game about talking to one specific person involved in the modern mining industry.**

Students work together to vote on conversation options as they have a **short conversation** with someone, making **choices together** about which way the conversation goes.

It's a **collaborative, consultative game**, with no winning state other than **finishing the conversation together**.



The Goal

Students collectively choose the path through a short conversation with a representative of the modern mining industry. The game is collaborative, and the only end state of to complete the conversation together.

Gameplay

- 📌 Students must proceed through a short conversation with a randomly chosen NPC representative of the modern mining industry.
- 📌 A different single NPC will be chosen from a pool of 10 for each game.
- 📌 The Teacher View is used to progress to the Next Line, using the Next Line button, if there is no choice of line. (Figure 1)

NEXT LINE

- 📌 If there is a choice, the students can vote using the Student View, or the Teacher View can override and make a choice for the class. (Figure 2 and 3).
- 📌 The line with the most votes will be chosen if the teacher does not override.



Figure 1 — starting a Modern Mine conversation on the Classroom View

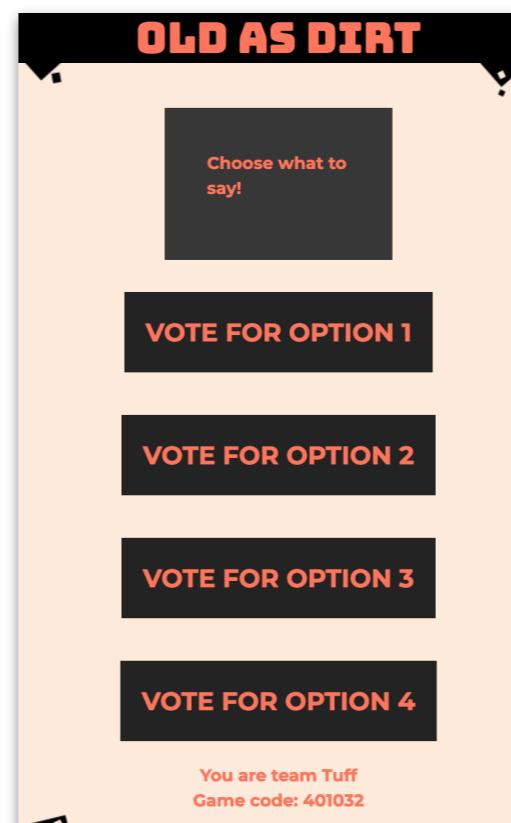


Figure 2 — Student View

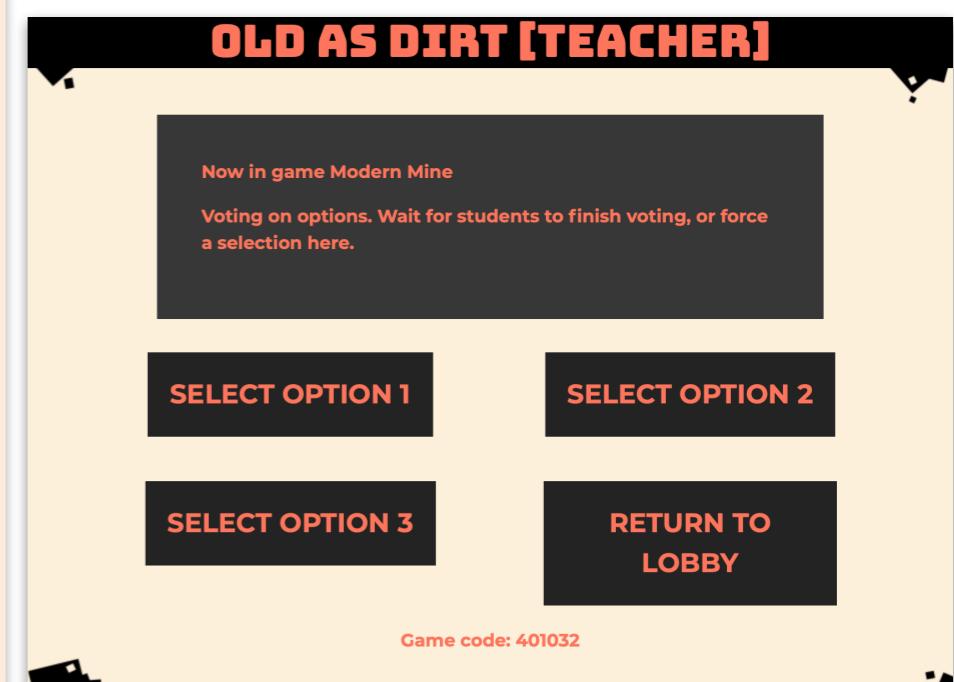


Figure 3 — Teacher View

Gameplay

- 📌 At the end of the conversation, the game will return to the title screen for that game.
- 📌 The possible conversations for Modern Mine are listed in Table 1.

Conversation
Sustaining 2040
Moving Forward and Gaining Momentum
Mine Concept 2040
Transformers 2040
Mine Design 2040
Water: The Earth's Universal Solvent
A Waterless Mine
Energy: The ability to do work!
Shining through and moving air!
Energising Mine 2040

Game 7

Keep it Moving



Keep it Moving

Keep it Moving is a game about the complexities of ground transport in the resources industry.

Students each control a train, moving between pits, spurs, and ports. Each train can only move on its appropriate line.

Students must collaborate to load as much ore as possible into the ships at the ports during a round.



The Goal

Students must strategise on the best course of action to get as much ore from the pits to the ports as possible, within the limitations of the transit system.

Starting

- 📌 The Classroom View will display a holding screen, including some simple instructions, until the [Start Game](#) button is pressed on the Teacher View. (Figure 1)
- 📌 The Teacher View will display a [Start Game](#) and a [Return to Lobby](#) button, as well as the game code. (Figure 2)
- 📌 The Student View will be waiting for the game to start, and will display the team name and the game code. (Figure 3)
- 📌 Pressing [Start Game](#) in the Teacher View will proceed into gameplay.



Figure 1 — instructions are displayed until the Teacher presses Start Game.

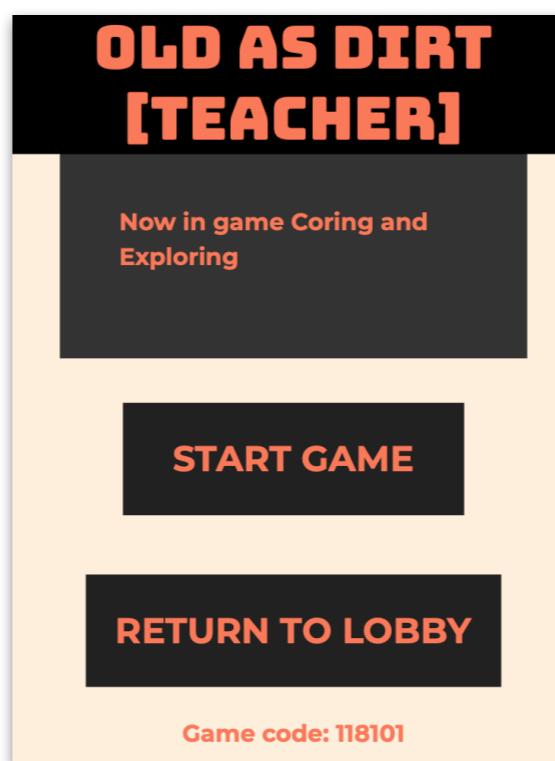


Figure 2

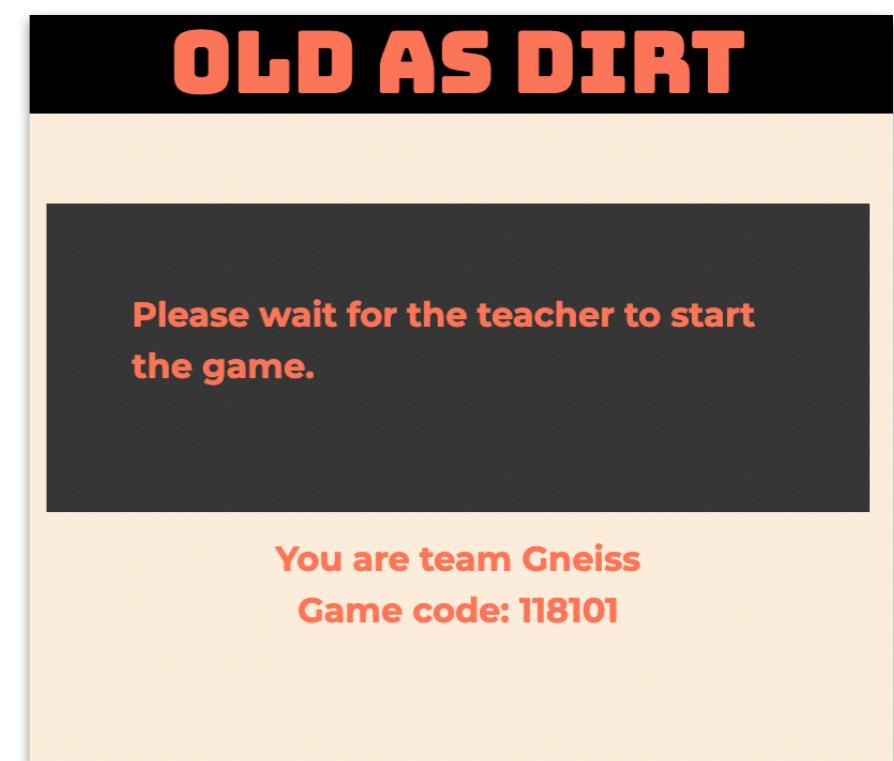


Figure 3

Gameplay

- 📌 The Classroom View will display a map of trains, spurs, pits, and ports. (Figure 1)
- 📌 Each spur, pit, or port has an assigned letter.
- 📌 Each player controls a train from their Student View. (Figure 2)
- 📌 Each player can use the [Load Iron Ore button](#) or the [Unload Iron Ore button](#) to load or unload from/to the pit, spur, or port where their train is currently.
- 📌 Iron ore on a train is represented by cubes on top of the train.

- 📌 Iron ore waiting for transport at pit or spur is represented by a collection of pie segments.

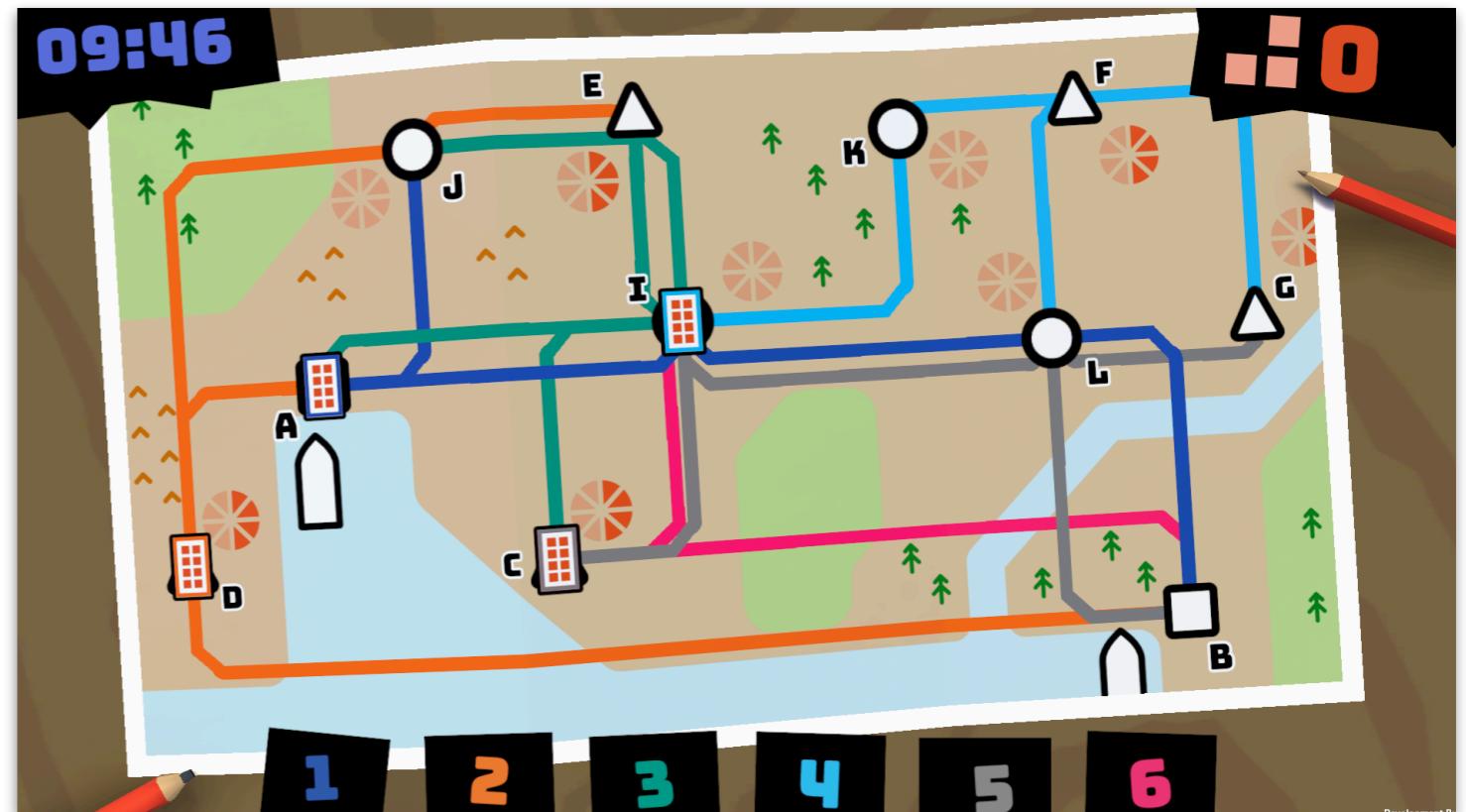



Figure 1

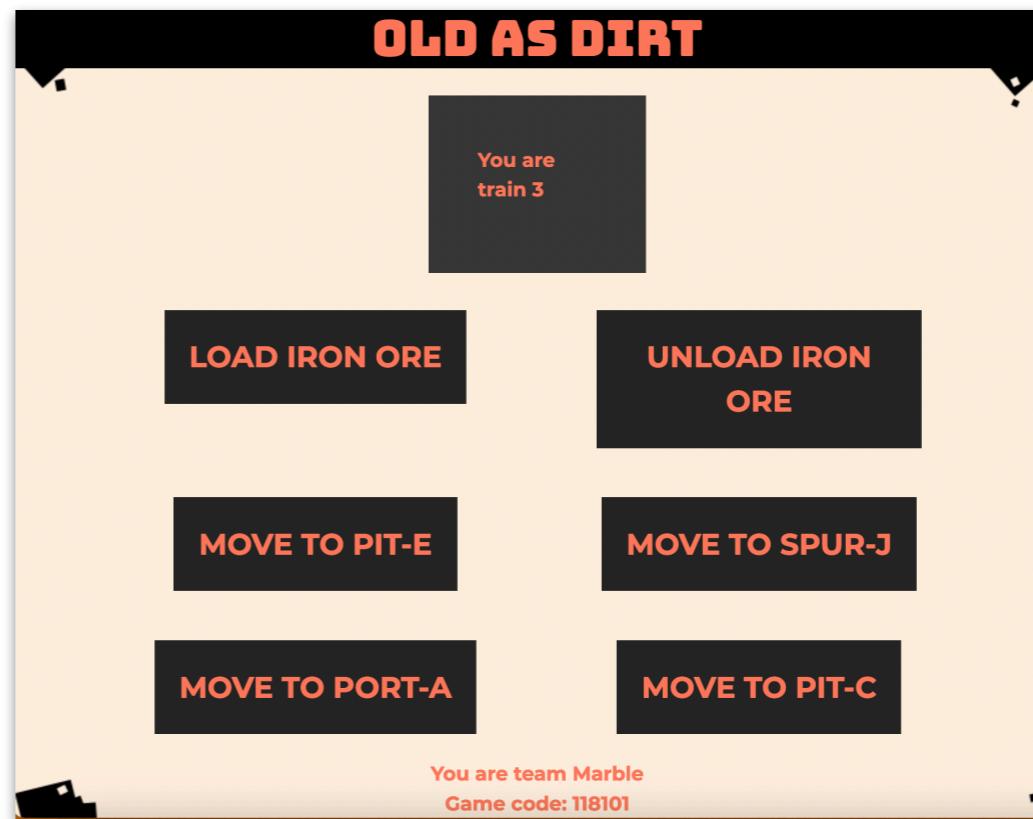


Figure 2

Gameplay

- Players must coordinate and collaborate to transport as much Iron ore as possible to the ports.
- Each train can only operate on the line it belongs to, designated by the train and line having a matching colour.
- Some pits, ports, and spurs exist on the intersection of multiple lines.
- Some trains will not have access to a port, and must coordinate with their colleagues to bring the iron ore from the pits to which they have access to spurs accessible by others, in order to get the iron ore to a port.
- Multiple trains can exist at the same location (if the lines allow it) without conflicting. Only the most recent train to arrive will be visible.

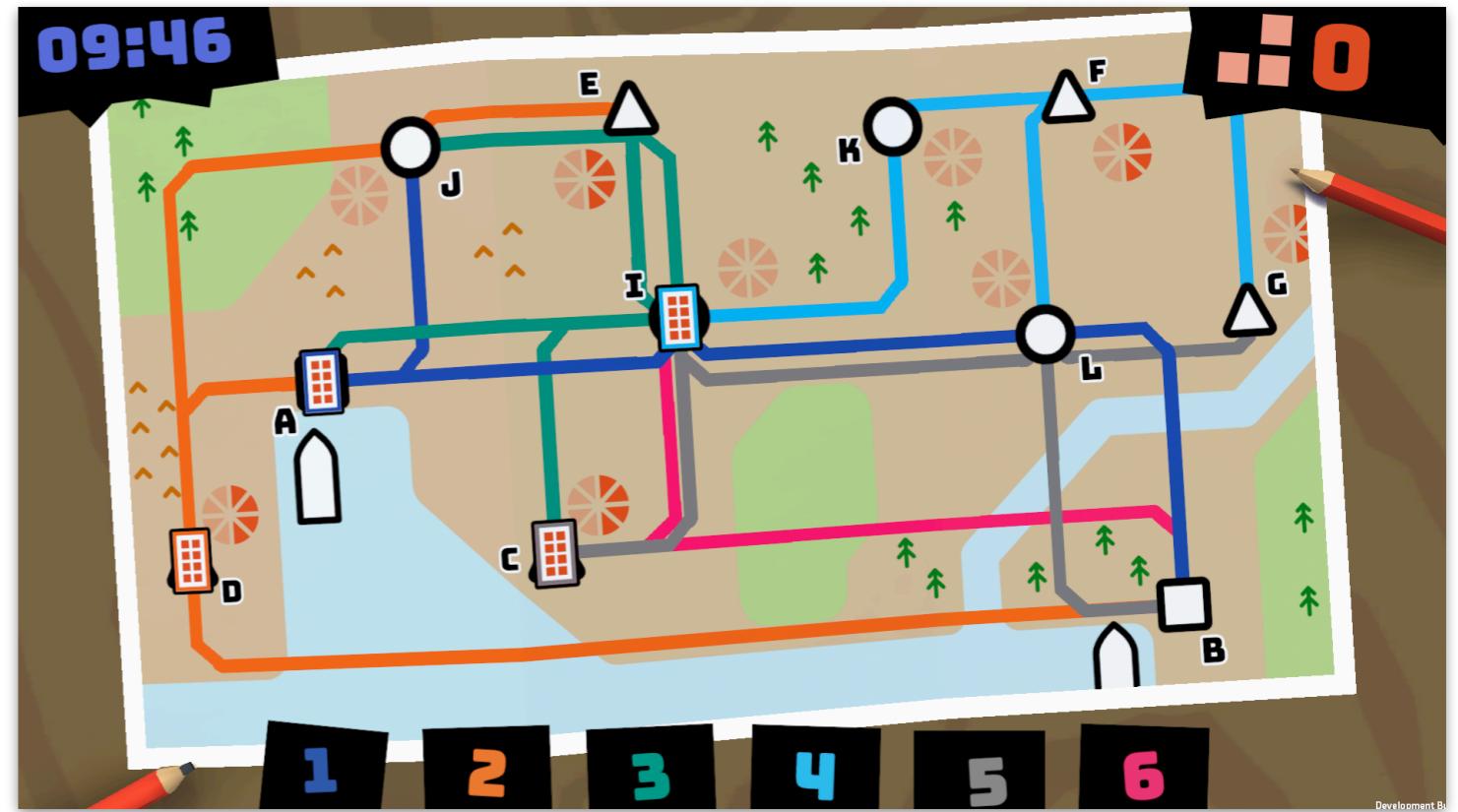


Figure 1

Gameplay

- 📌 The game will end when the timer runs out.
- 📌 A summary of how much ore was shipped will be displayed.

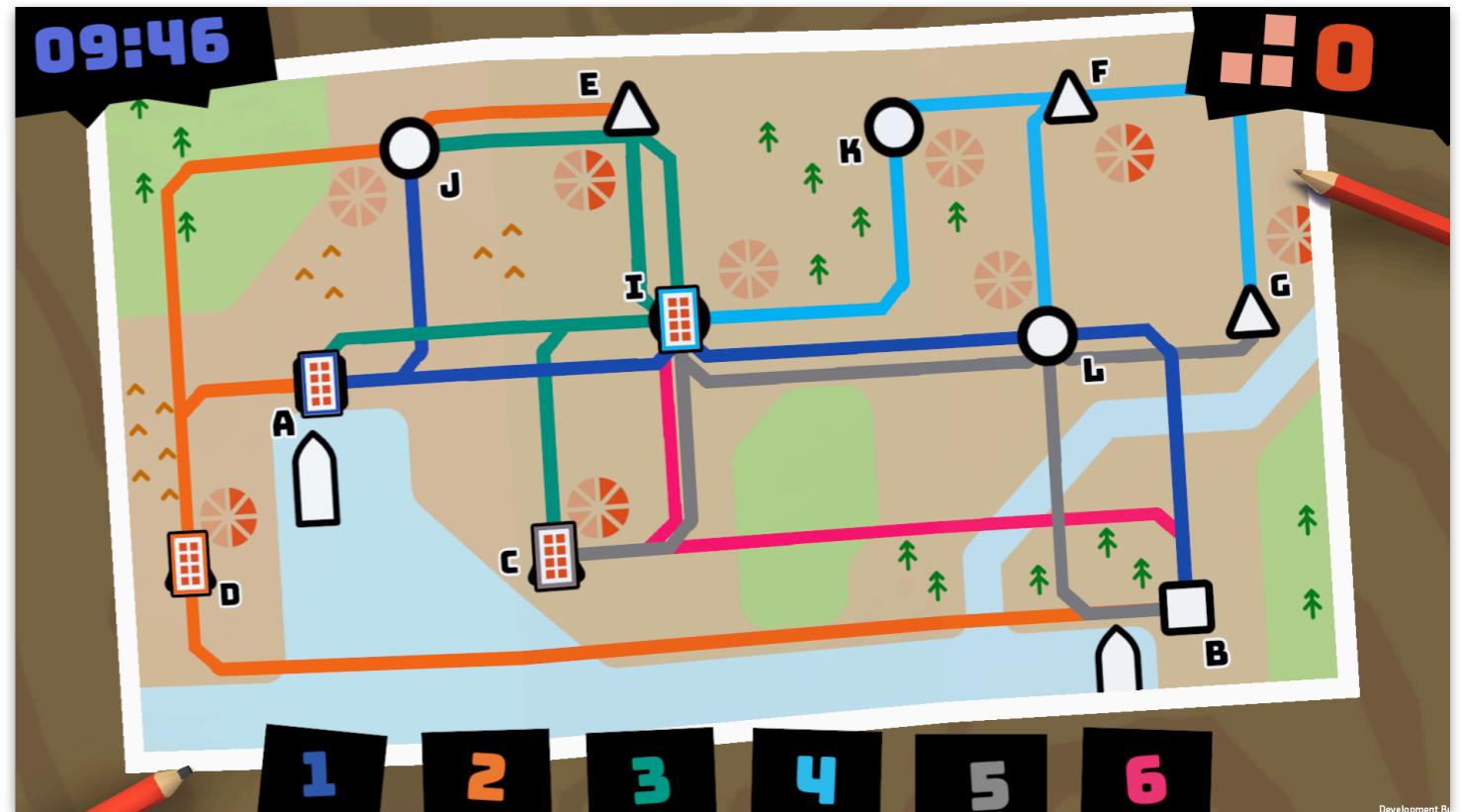


Figure 1

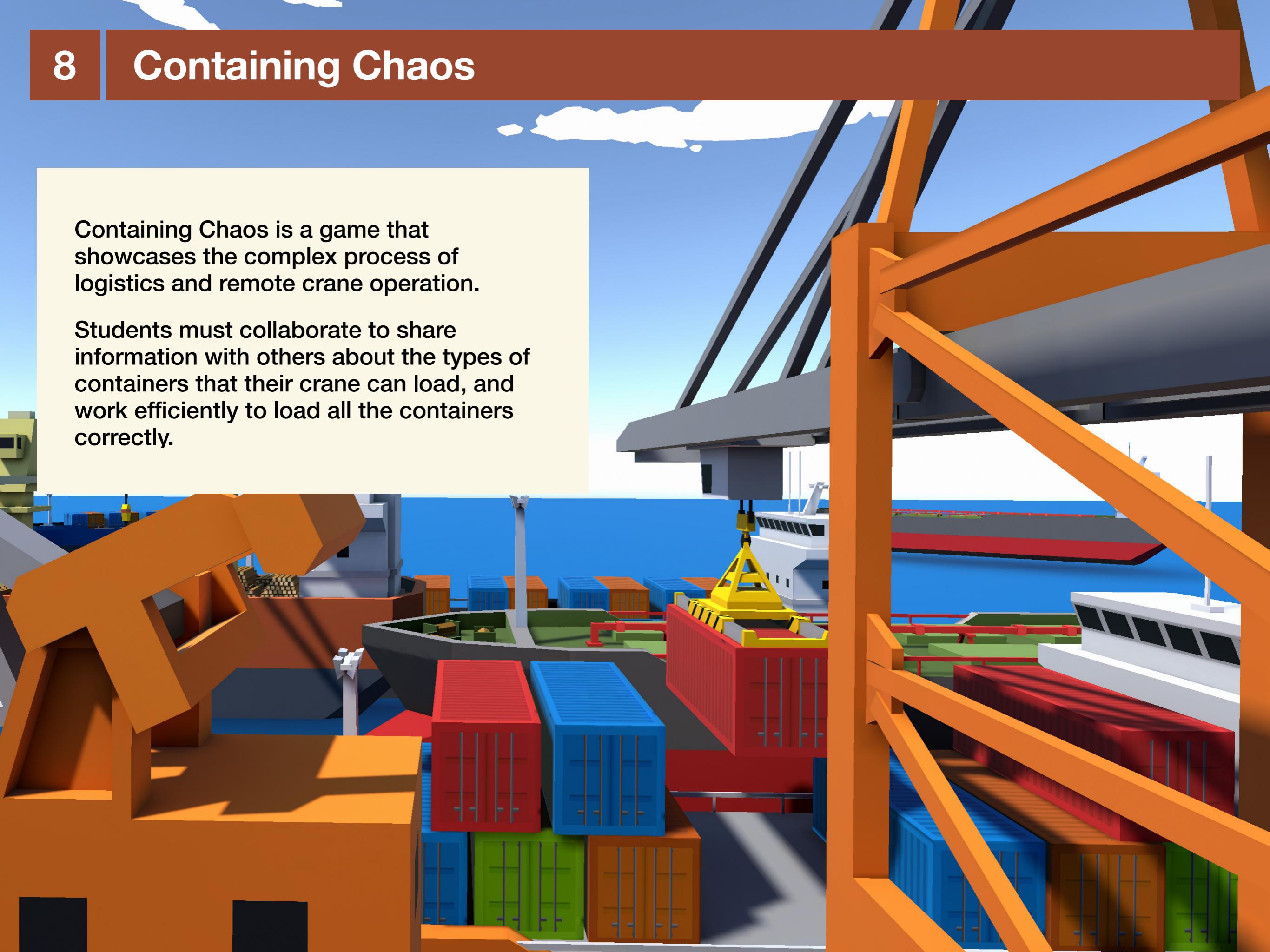
Game 8

Containing Chaos



Containing Chaos is a game that showcases the complex process of logistics and remote crane operation.

Students must collaborate to share information with others about the types of containers that their crane can load, and work efficiently to load all the containers correctly.



The Goal

Students should collaborate to correctly load as many containers as possible, and help their colleagues load as many containers as possible.

Starting

- 📌 The Classroom View will display a holding screen, including some simple instructions, until the Start Game button is pressed on the Teacher View. (Figure 1)
- 📌 The Teacher View will display a Start Game and a Return to Lobby button, as well as the game code. (Figure 2)
- 📌 The Student View will be waiting for the game to start, and will display the team name and the game code. (Figure 3)
- 📌 Pressing Start Game in the Teacher View will proceed into gameplay.



Figure 1 — instructions are displayed until the Teacher presses Start Game.

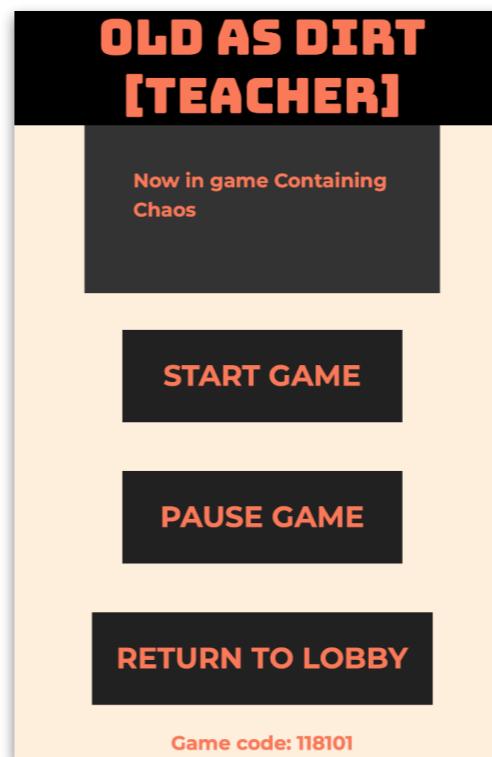


Figure 2

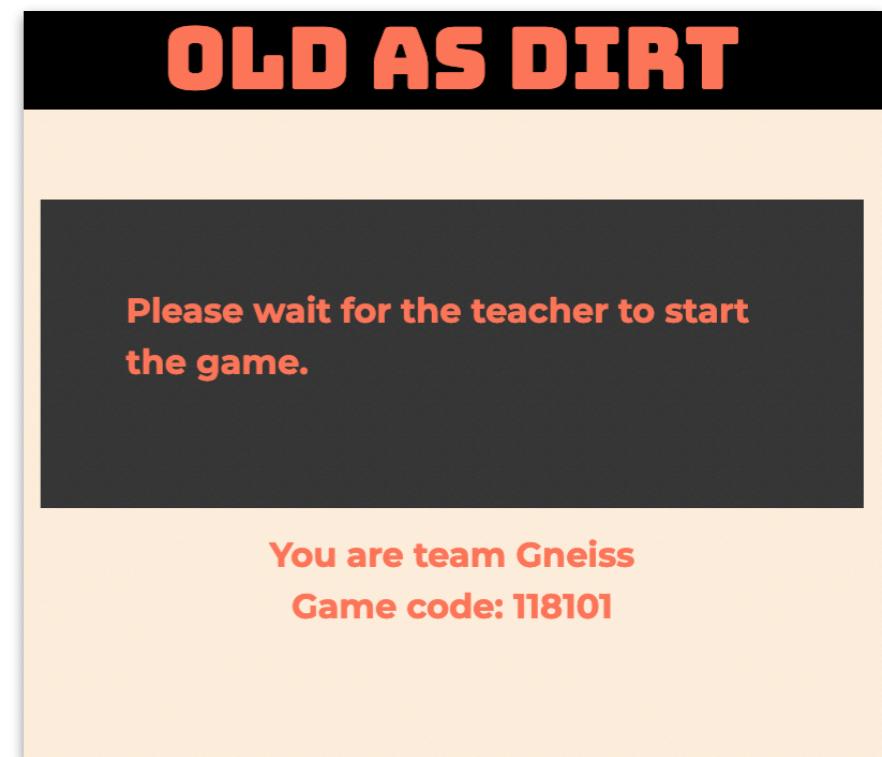


Figure 3

Gameplay

- 📌 On the Classroom View 6, 7, or 8 numbered cranes are displayed (corresponding to the player count), each initially with three containers below it. Each belongs to a single player.
- 📌 Each player, via their Student View, can either choose the Load button, or the Send Left button, or the Send Right button. (Figure 2 and Figure 3).
- 📌 Each crane has a Station Order, which represents the type of containers that it should be loading. This is displayed on the Student View for the cranes. (Figure 2).
- 📌 Once a player has chosen their action, it is displayed on the Student View. (Figure 3)

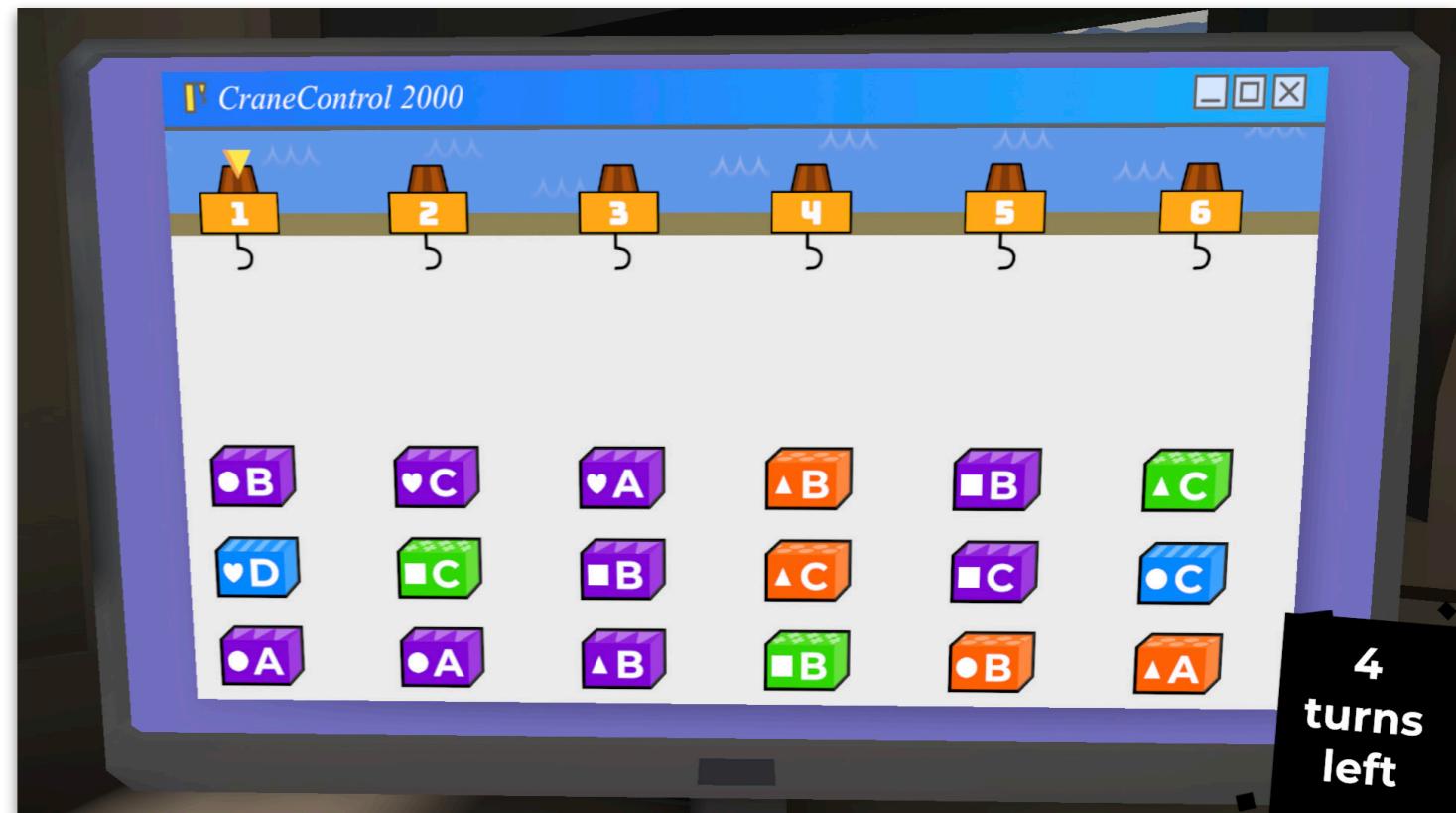


Figure 1 — the start of a round, where Crane 1 is the first crane.

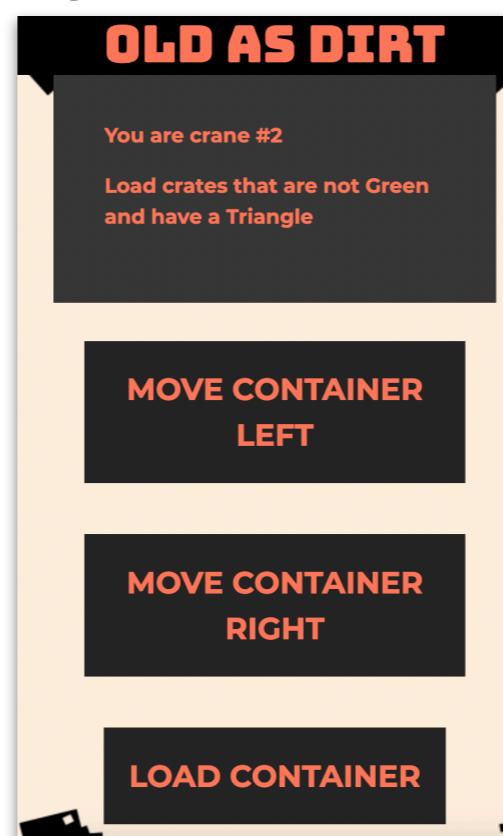


Figure 2

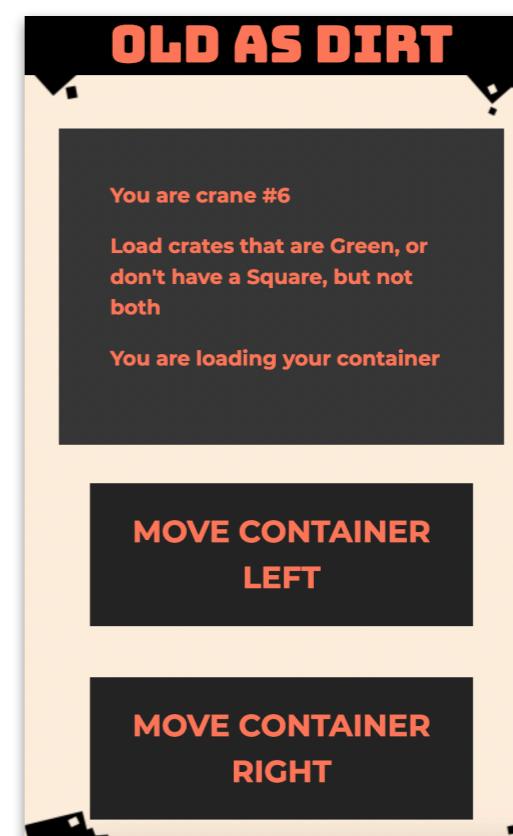


Figure 3

Gameplay

- When an action is chosen, the action is displayed in icon form on the crane. (Figure 1).



- Actions execute from left to right, starting with the marked crane



- Actions are executed when all cranes have a chosen action. Then the round ends and the marked crane changes.

- When a container is loaded to Station Order, a large green tick is displayed on the crane. (Figure 2)

- When a container is loaded against its Station Order, a large red X is displayed on the crane. (Figure 3)

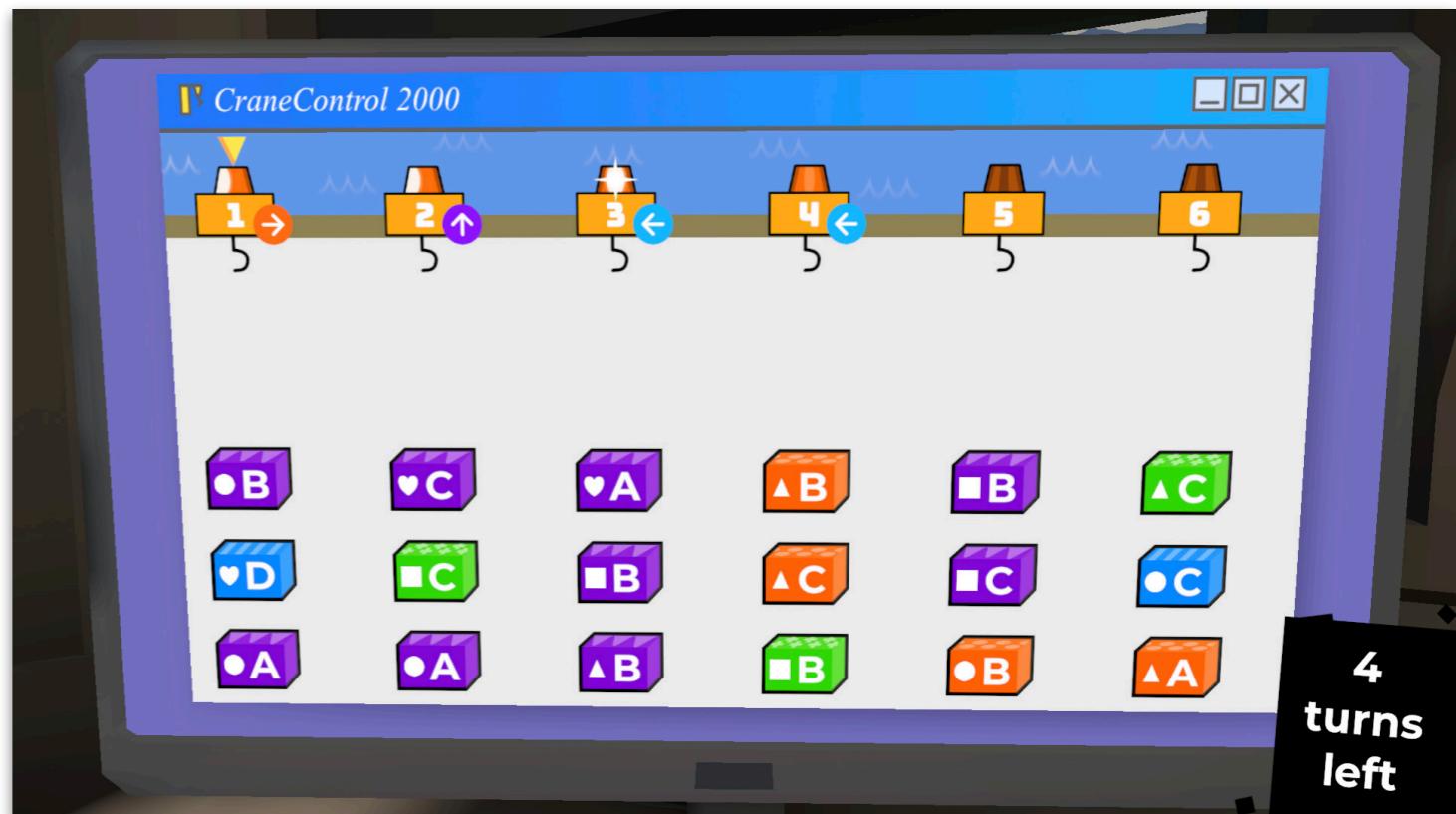


Figure 1 — Crane 1, 2, 3, & 4 have chosen an action. Crane 5 and 6 have not.

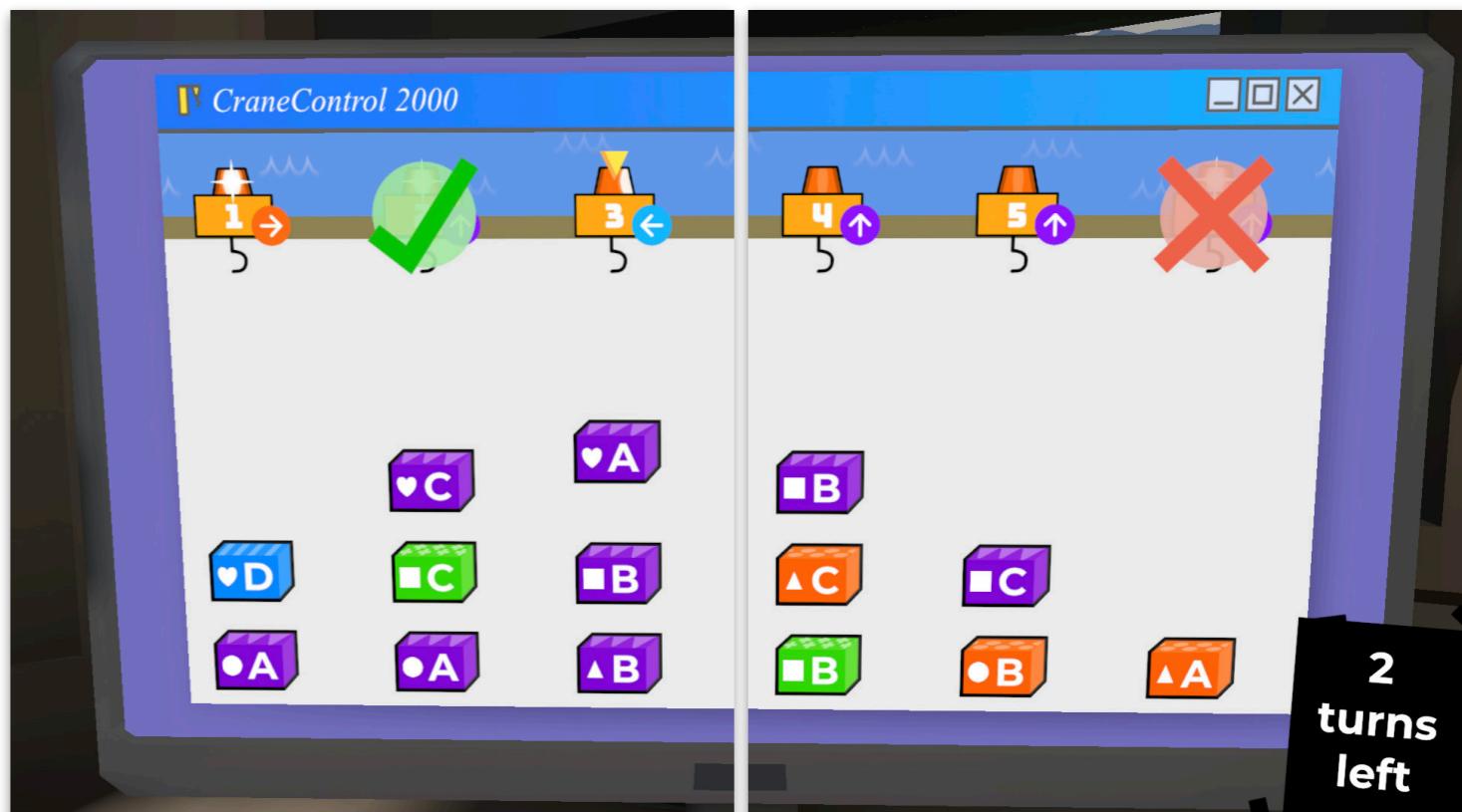


Figure 2 — 2 loaded correctly.

Figure 3 — 6 loaded incorrectly.

Gameplay

- 📌 All cranes can load all container types, but should load as many correctly as possible.
- 📌 The round ends when all the containers are loaded, or the amount of turns runs out.
- 📌 The turn count is shown in the bottom right corner. (Figure 1)
- 📌 At the end of the round, a summary is displayed. (Figure 2)



Figure 1

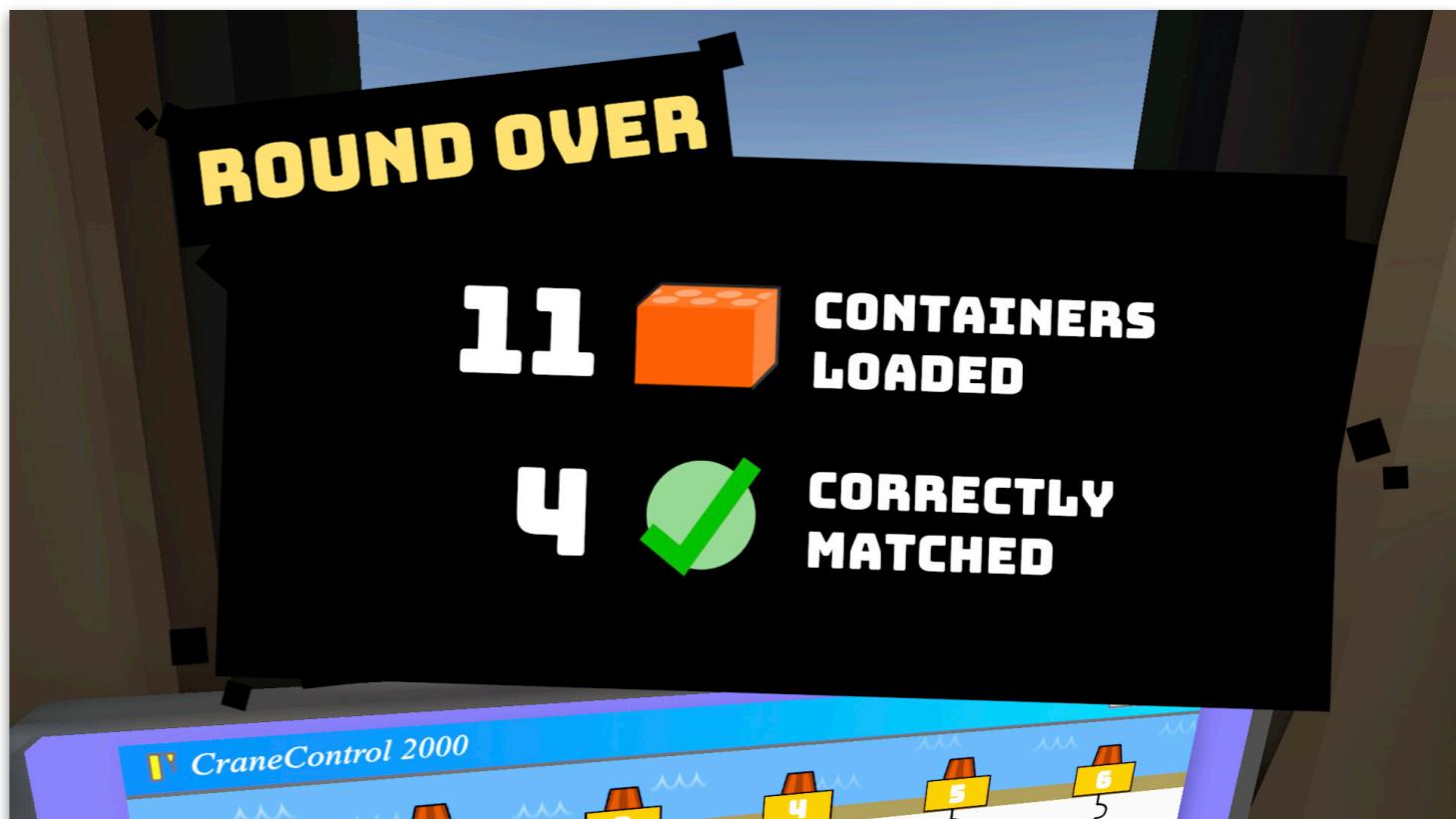


Figure 2

FAQ

Frequently Asked Questions

FAQ

Q Sometimes, I get two teams with the same name (e.g. “Chert”) appearing in the Classroom View starting screen, where the team names appear. What do I do?

A This happens occasionally when the network conditions interfere with the game. To fix this, in the Teacher View, press the Kick button (e.g. if you have two “Chert” teams, press “Kick Chert”) associated with the team name you are seeing multiples for. The duplicates will be removed from the game, and then the students using that team name can rejoin the game.

Q I've found a problem with the game. What do I do?

Q Any tips on reporting an issue?

A Please report the issue via the URL secretlab.games/core/issue — please be as detailed as possible, and spell out the steps to get to the point you were at when you found the issue. The more detail, and screenshots, and information you provide, the more likely the team is to be able to identify and correct your issue in a future version of the game.

FAQ

Please use the form available at the following URL to report issues, log feedback, or supply your comments on the games.

<https://secretlab.games/coregames/issue>

Credits



SECRET LAB