



TURING'S TOWER

Turing's Tower

Game Guide

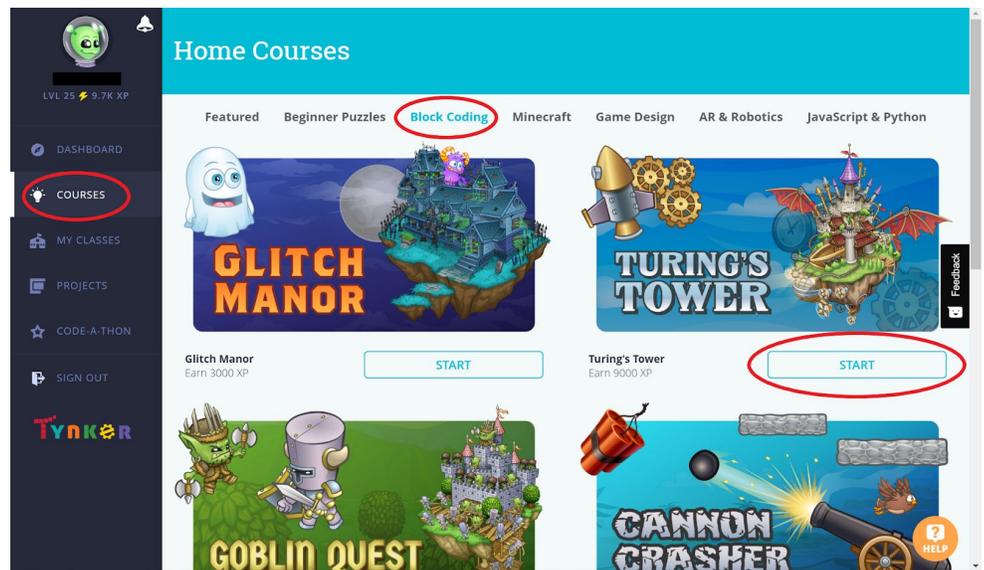
Congratulations on beginning Turing's Tower! We've created this guide to help you navigate through the course and successfully defeat Enygma the Dragon – all while learning to code.

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Launching the Game

After you log in, click the **Courses** tab on the left side, then click **Block Coding** on the top sub-menu. Click **Start** on Turing's Tower to launch the game.



Click on the first module in the slider to start Turing's Tower.



Introduction

The goal of Turing's Tower is to collect and fix pieces of the tower in order to defeat Enygma the Dragon, who has been taking crystals and damaging the tower. You will learn many coding concepts along your journey, which will be used to complete tutorials and puzzles.

The game is played in a platform side scroller style. The basic structure of each chapter is:

1. Find and talk to Turing to learn coding concepts
2. Find a clue to complete a tutorial
3. Find another clue to complete another tutorial
4. Find a tower piece to complete a puzzle

Navigation (keys):

- Use the arrow keys on your computer to move around
- **Space** to interact with objects and actors
- **A** to slash enemies (when learned)
- **S** to shoot enemies (when learned)
- **Up** then **Down** to slam enemies (when learned)

Things to look out for:



Clues: Every time you see the clue object, walk over to it and click 'Space' to interact with it and start a tutorial. After each tutorial, interact with the stage to progress and find the next clues.



Teleporter: The teleporter is used to go to other worlds, or to teleport back into the tower. You will run into these naturally as you progress through the stage and find clues.

Chapter 1: Gem Chomper



In the first level of Turing's tower, after the initial introductory scenes, you'll find yourself inside the Tower. The game is played as a platformer.

In order to complete this level, you must get past the evil steam bots, repair some of the platforms on the tower, and find all the clues to get to the teleporter that takes you to the next level.

The clues are guided exercises that introduce coding concepts that you will apply to move ahead in the game.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=1&l=1>

Design Your Character

Create your own character! Customize the head, body, arms, legs, and add accessories. When you're happy with your character, click the 'Start Game' button to begin.



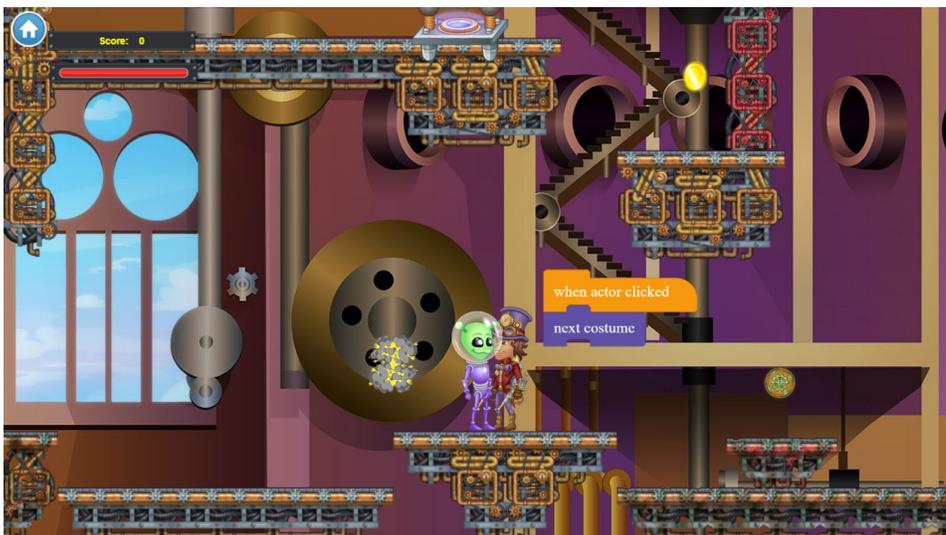


Escape the Dragon

After you create your character, you must run away from Enygma the Dragon. Press the up key once or twice to jump or double jump respectively. After you reach the end of the stage, jump off to land in Turing's Tower.

Enter the Tower

Once you've entered the tower, you must talk to Turing to learn about coding concepts that you will use to repair the tower and defeat Enygma. But first, you must accept Enygma's plea for help by clicking 'Yes' when prompted.



Tower

Once you've agreed to help Turing, walk over to him and click 'Space' to interact with him and learn coding concepts. Click on Turing to continue.

Add Actors

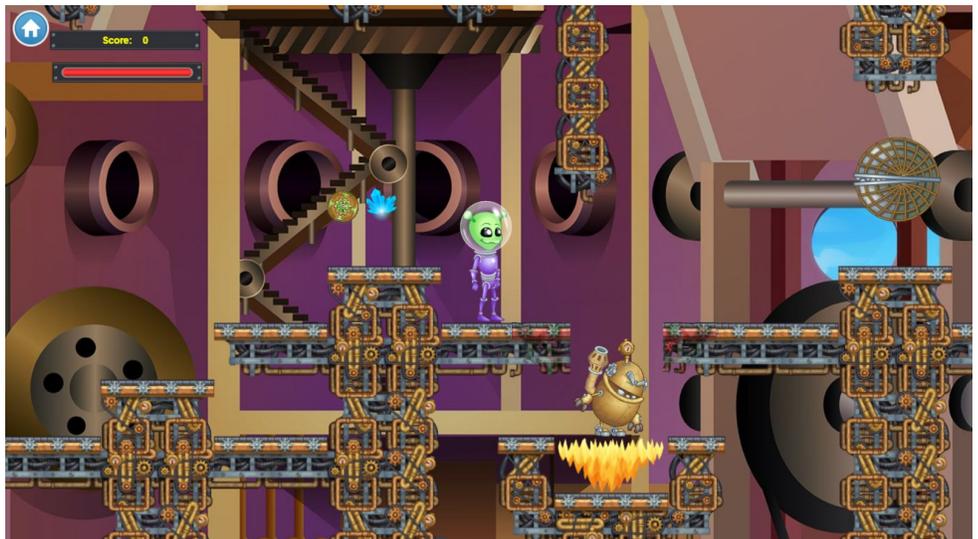
After speaking with Turing, you'll need to get to the other side of the stage. You can't climb or jump high enough, so walk over to the clue and click 'Space' to start a tutorial. After completing the tutorial, use the platforms to move to the right and click 'Space' to interact with the next clue.

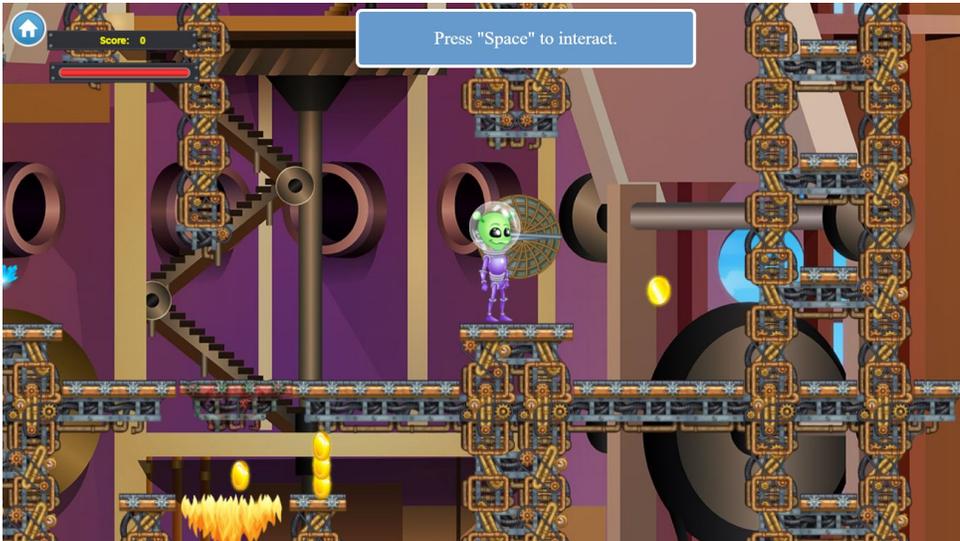


Next Costume

Next, you need to get past the enemy to get to the last clue. Program the platform below the steam bot to open up when clicked, so you can get across to the other side. To do this, you need to interact with the next clue and complete the tutorial.

After completing the tutorial, get past the steam bot. First, click on the platform under the steam bot to open it up.

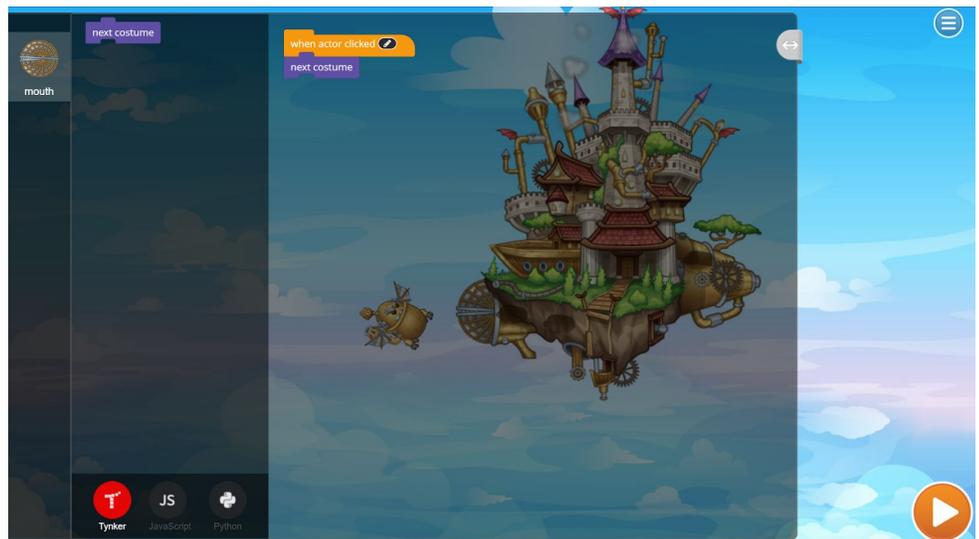




Once the steam bot has melted, click on the opened platform to close it. You can now walk across to the next clue.

Click the Mouth

Complete the puzzle and press 'Play' to start. To pass the puzzle, click on the 'mouth' actor to open its mouth when there are crystals flying toward it, and keep the mouth closed when there are enemies flying toward it.



The teleporter is now ready to be used! After completing the puzzle, follow the green arrows to the teleporter on the left side of the stage (above where Turing is standing). Walk to the left and jump over the gap to land on top of the floating platform. From there, jump up to the teleporter and click 'Space' to go to Ice World.

Chapter 2: Test Pilot



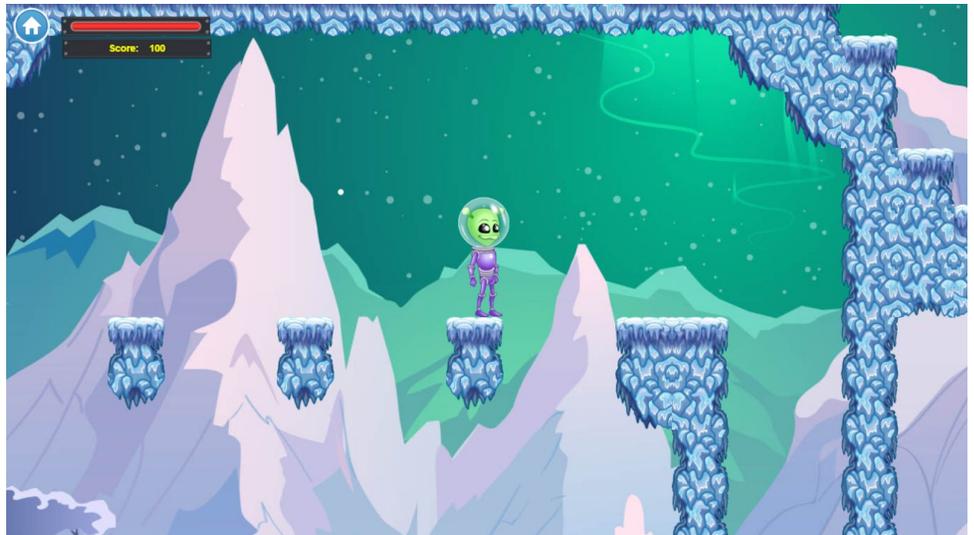
In this chapter, you must get past the frozen flames to fix the propellers so the tower can keep flying. As you did in the first chapter, you need to talk to Turing to learn about coding concepts, then follow the clues to progress through the stage and reach the propeller.

The answer key to this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=2&l=1>

Ice World

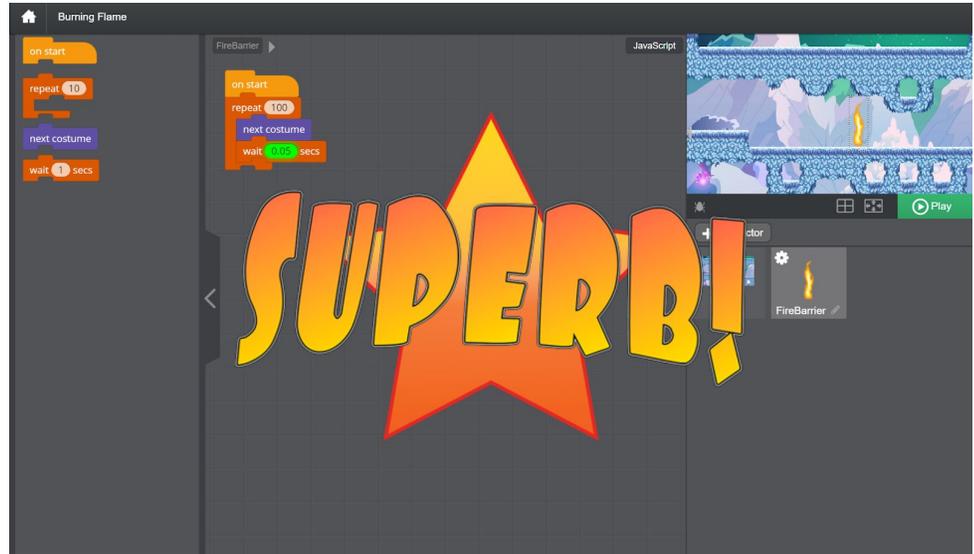
Your first objective in Ice World is to get to the frozen flame. Get to the other side of the stage by jumping on top of the floating platforms in front of your character. Once you get to the end of the floating platforms, jump over the last platform to land on the bottom of the stage.



Once you jump down, you'll see Turing standing nearby. Go up to him and click 'Space' to learn about more coding concepts. Click on Turing to continue.

Burning Flame

Once you finish talking to Turing, walk forward and interact with the first clue. In this tutorial, you'll unfreeze and animate the flame. Once you finish the tutorial, click Continue.

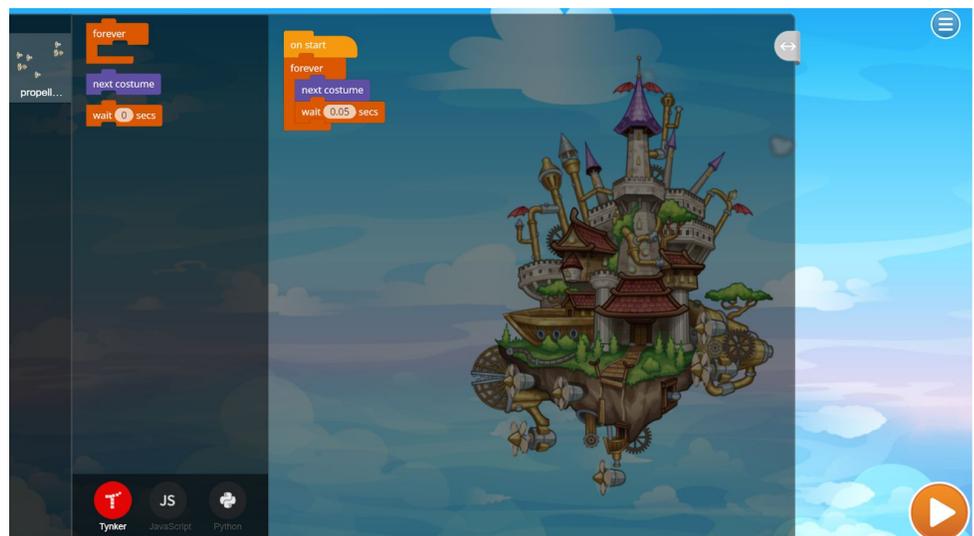


Flickering Flame

Once you finish the Burning Flame tutorial, you'll instantly start the next. In this tutorial, you will add a flicker effect to the flames. This will allow you to get to the other side without getting burned. Once you complete the tutorial, click 'Continue' to move on.

Animating Propellers

Keep walking to the left to get to the propeller. Wait for the flames to flicker to move across. Once you make it past the flames, jump down and click 'Space' on the propeller to start a puzzle. You'll need to animate the propellers at the correct speed to keep the tower flying.



Chapter 3: Grasper



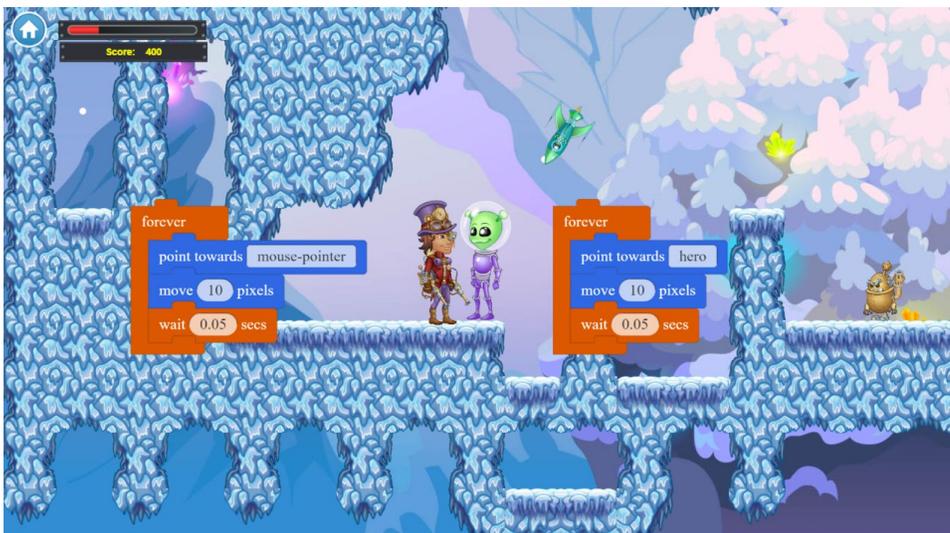
In this chapter, you will find and animate a robot claw to grab crystals for Turing's Tower. You'll use your new technique, 'slam,' to defeat enemies on the way to the robot claw. To use 'slam,' jump and press the down key over a steambot to defeat it. You'll need to talk to Turing to learn about coding concepts, then follow the clues in order to reach the robot claw, which you will use to collect crystals for Turing's Tower.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=2&l=3>

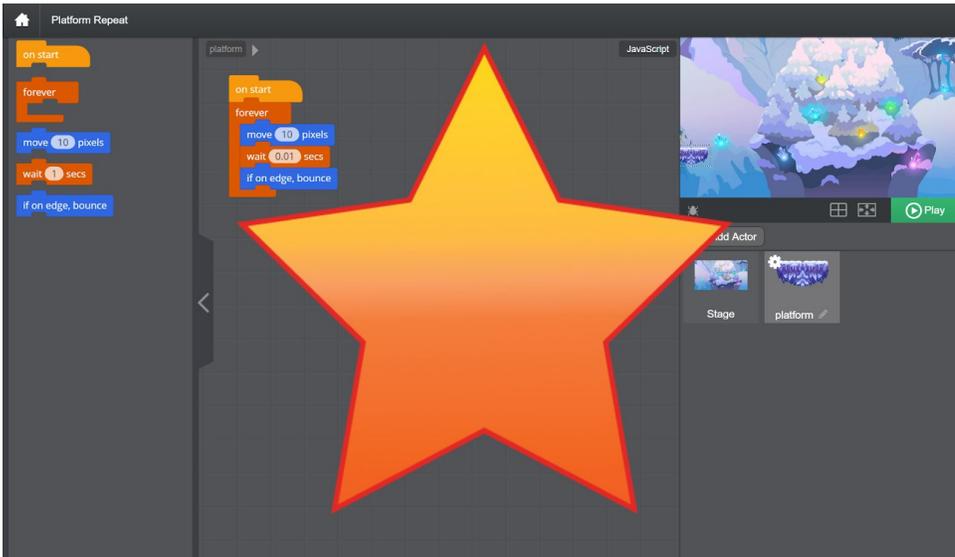
Platform Repeat

Before you can start the Platform Repeat tutorial, you'll need to jump down from the propeller to a lower level in the stage. You'll see a steambot here; use your new 'slam' technique to defeat it.



After you defeat the steambot, move right and jump down the opening to go even lower in the stage. Once you land, you'll see Turing. Interact with Turing to learn about more coding concepts. After you've learned about the coding concepts, click on Turing to move on.

You'll notice a steambot to the right of Turing. Once you're finished talking to Turing, go over to the steambot and use 'slam.' Walk up to the next clue and start the Platform Repeat tutorial, where you'll program the platform to move back and forth.



Once you go through the tutorial and your code matches this, click Continue so you can use the platform you just programmed.

Purple Follows Mouse

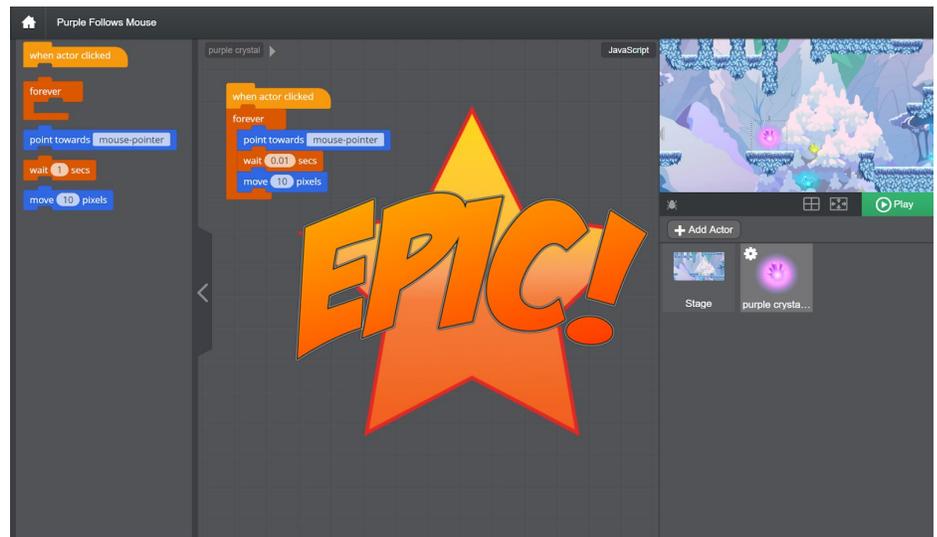
Next, jump and stand on the platform to get to the other side of the stage. You'll have to jump up and climb up after you cross.





Once you climb the platforms to the top, you'll see two steambots walking around. Use 'slam' to defeat the steambots. Walk over to the next clue to interact with it.

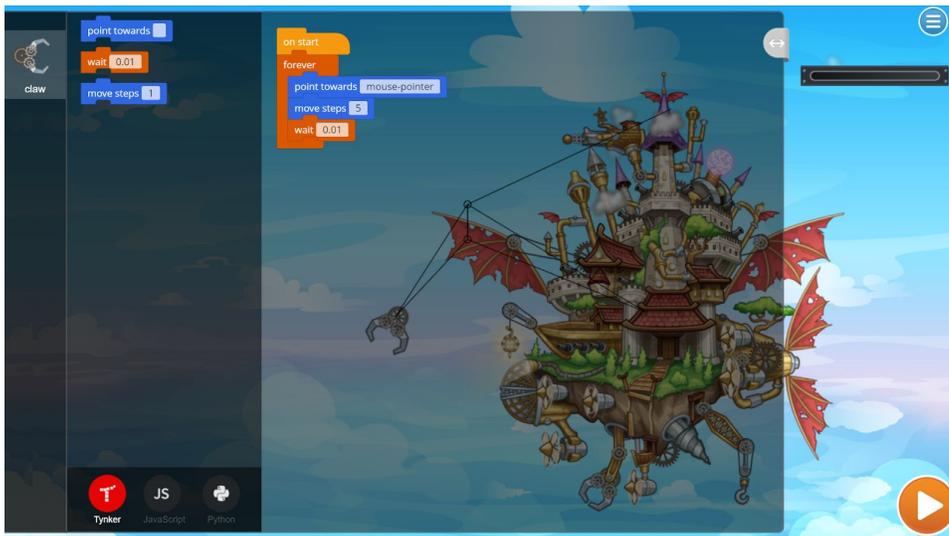
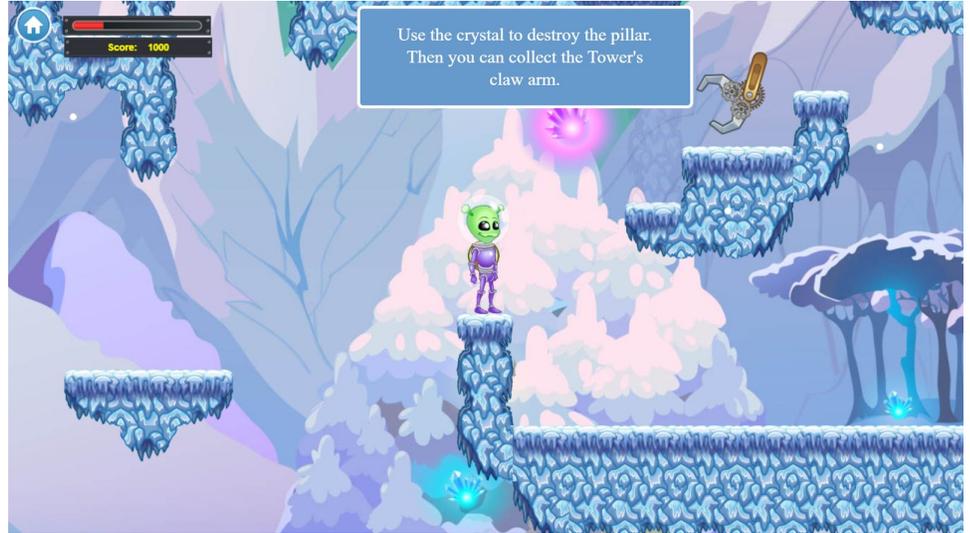
In the next tutorial, you'll program the purple crystal to follow your mouse pad. You'll need this feature to melt the wall of ice that covers the Robot Claw. Once you go through the tutorial and have the correct code blocks in place, click Continue.



Robot Claw

Once you complete the tutorial and are back in Ice World, click on the purple crystal in front of you. You do not need to be right next to the crystal. Once you click on it, the crystal will follow your mouse. Move your mouse onto the wall of ice to destroy it.

When you touch the wall of ice with the purple crystal, they should both disappear, allowing you to jump on the floating platform and interact with the Robot Claw.



Energy crystals are falling just out of Turing's Tower reach. You'll need to program the Robot Claw to reach out and grab the crystals. Use these coding blocks and press Play to start the puzzle.

Use your mouse to guide the claw to the crystals. The claw will automatically grab the crystals once you move the claw on top of them. You need to put the crystals in the Tower's mouth; guide the claw to the mouth after you collect a crystal.



Chapter 4: Stargazer



In this chapter, you will program a part of Turing's Tower to catch crystals falling from the sky.

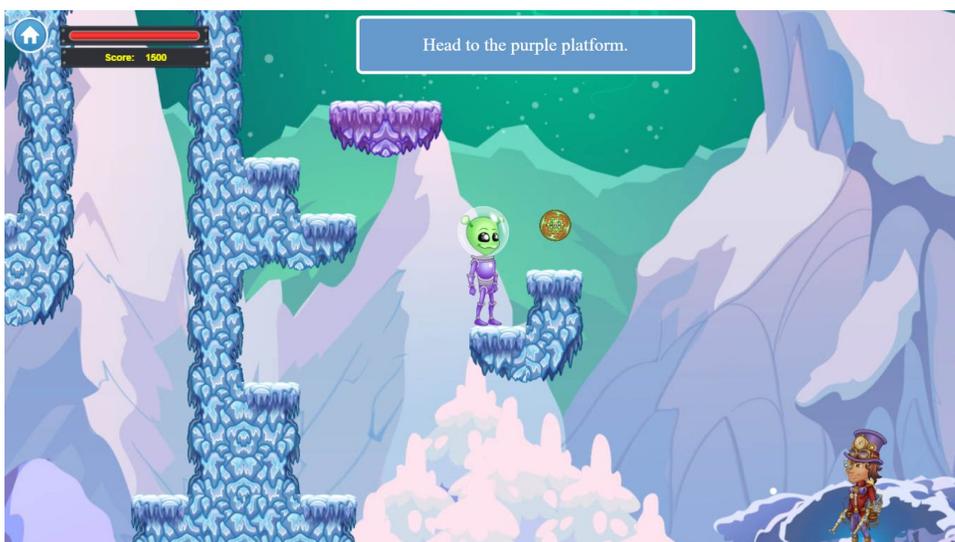
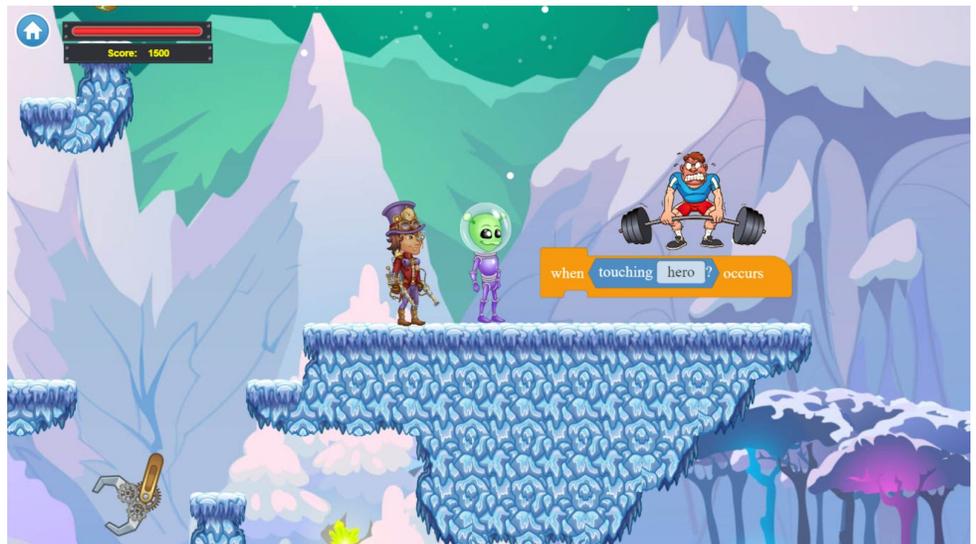
Like the other chapters, you'll first need to talk to Turing to learn about coding concepts. You can then use the concepts you learned to find clues, complete tutorials and activities, and find another part of Turing's Tower.

The answer key to this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=2&l=5>

Controlled Platform

After completing the Robot Claw puzzle, jump on the platform on top of your character and talk to Turing. Once you've learned coding concepts from Turing, click on him to continue.



Next, jump over the gap and onto the left side of the stage. Then jump up and interact with the next clue. This will start a tutorial that will teach you how to control the purple platform above your character.

Complete the tutorial with the following code and click Continue to move on.

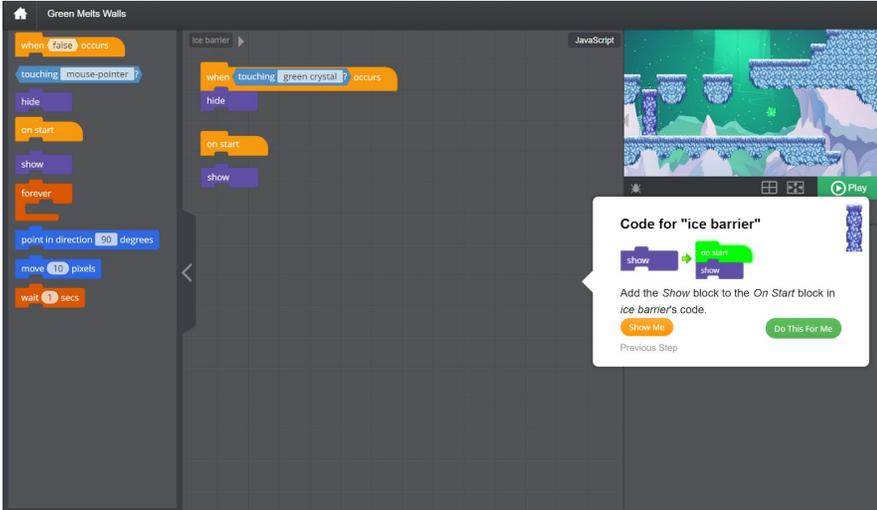


Now you can control the purple platform above. Move your character to the top of the purple platform, then control the platform ('a' to move left, 's' to move right). You can use this platform to get to the right side of the stage.

Green Melts Walls

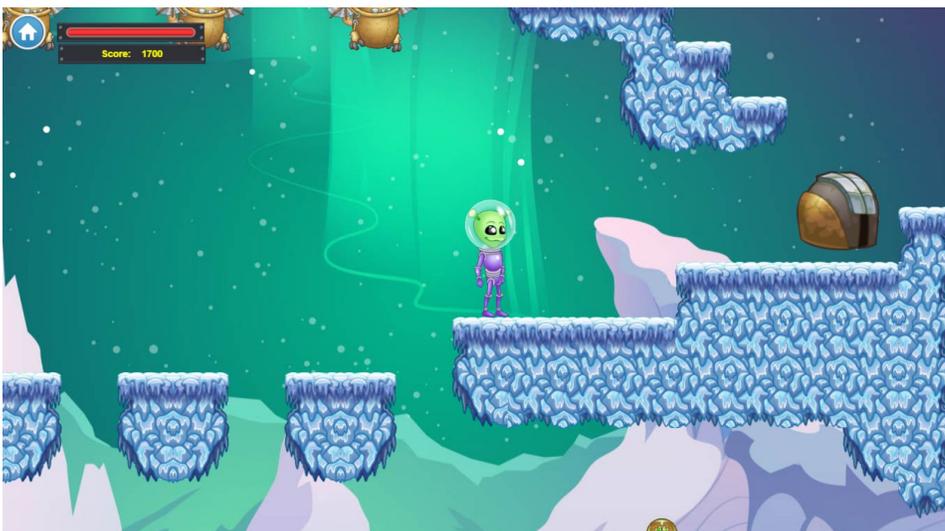
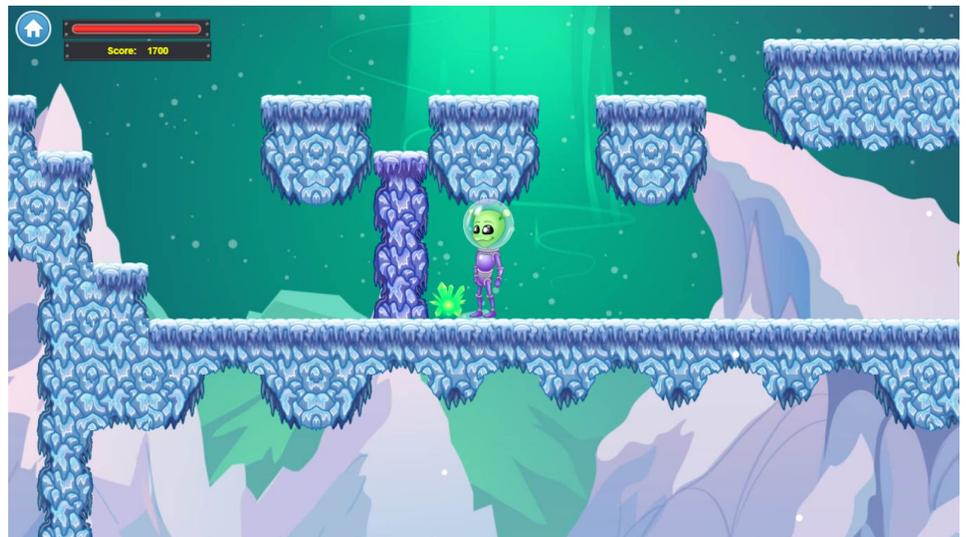
Once you cross over to the right side, jump up and click 'Space' on the next clue.





In this tutorial, you will program the green crystal to melt the ice pillars when they touch. After you've completed the tutorial with these code blocks, click Continue to move on.

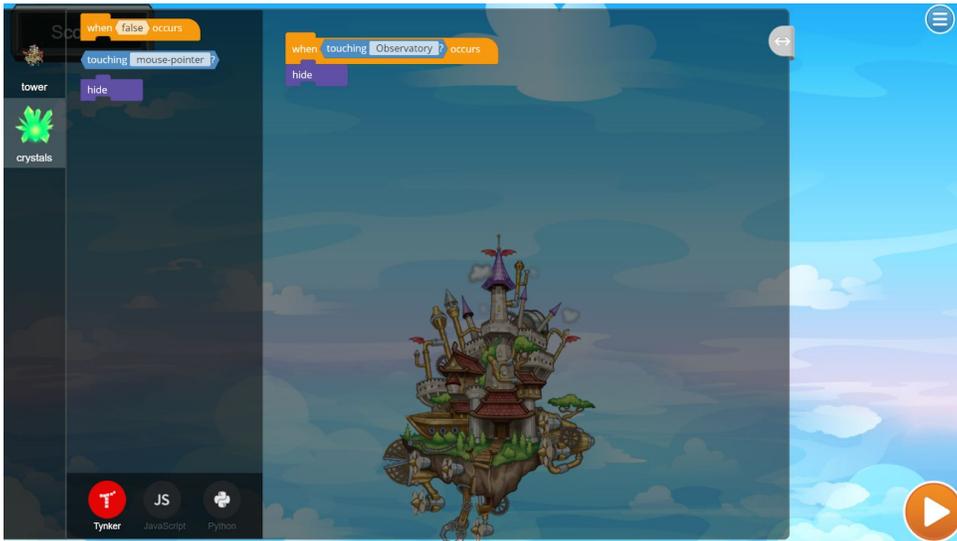
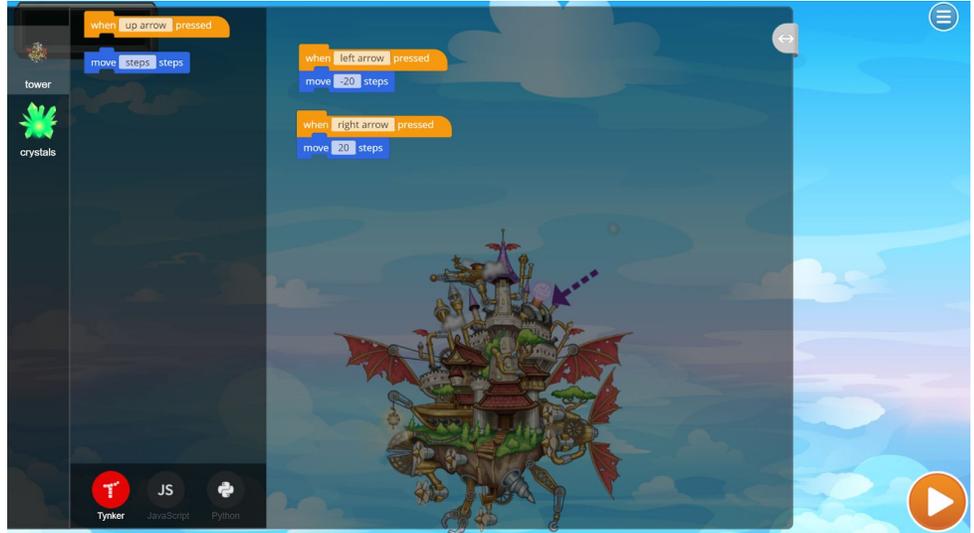
Now you can use the green crystal in front of your character to melt the ice pillars in the way. Move your character to the left and push the green crystal into the ice pillars to melt them. Keep going until all the pillars are gone. Then, you can find the next piece of Turing's Tower.



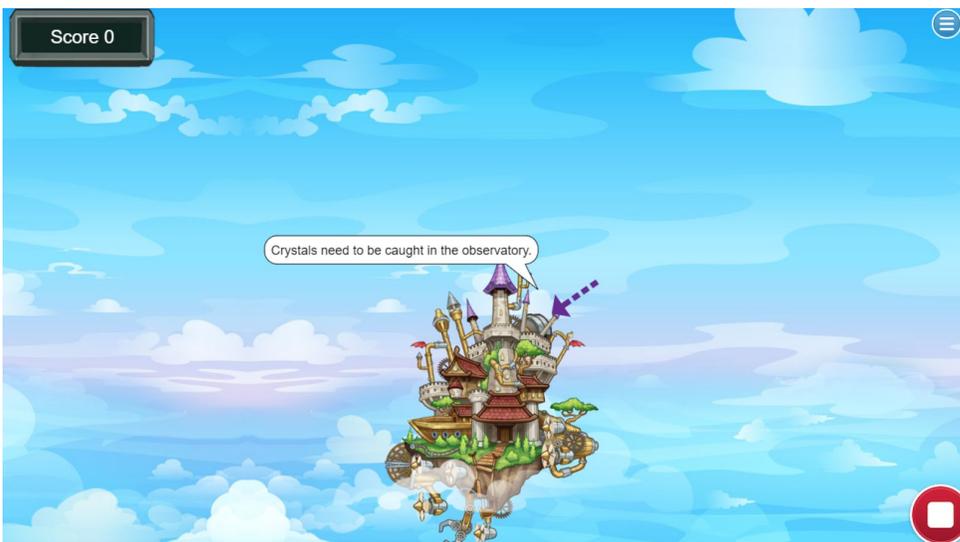
Catch the Crystals

Once you've melted all the ice pillars, climb the stair like structure on the left side. Then you need to turn around and use the floating platforms to cross over to the right side. Once you get across, interact with the tower piece to start a puzzle.

Energy crystals are falling from the sky. To catch them, program the tower to move left and right with the arrow keys. You will also need to add code to the crystals to hide them when they're caught. Once you have the correct code for each Actor, click the Play button to start the puzzle.



To pass the puzzle, catch the crystals using the part of the tower that you just programmed, the observatory. The crystals will go through and fall down to the ground if you try and catch them with any other part of the tower.



Chapter 5: Attractor



In this chapter, you will program a remote saw to deflect enemies flying toward the tower.

As usual, you'll need to find and talk to Turing to learn about coding concepts. Then you can search for clues and complete tutorials to progress through the stage to find the next tower piece.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=2&l=7>

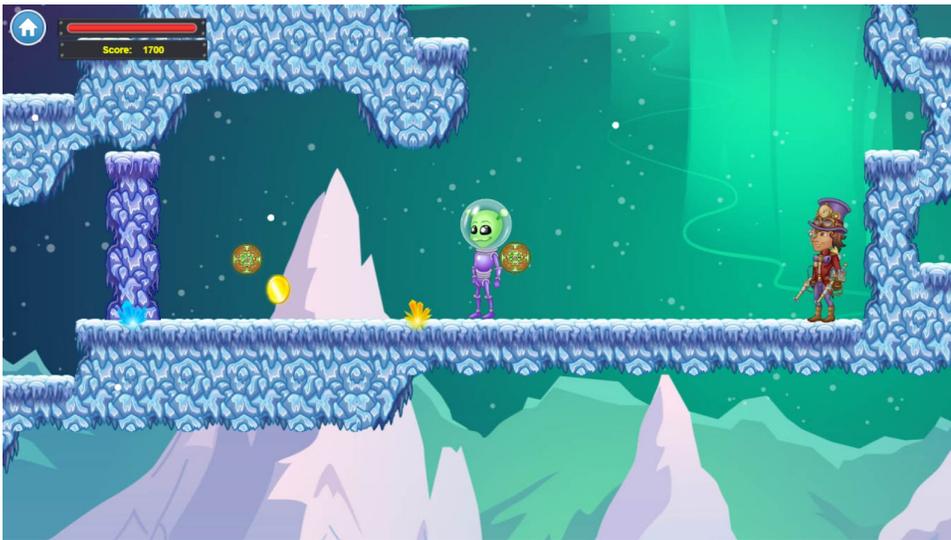
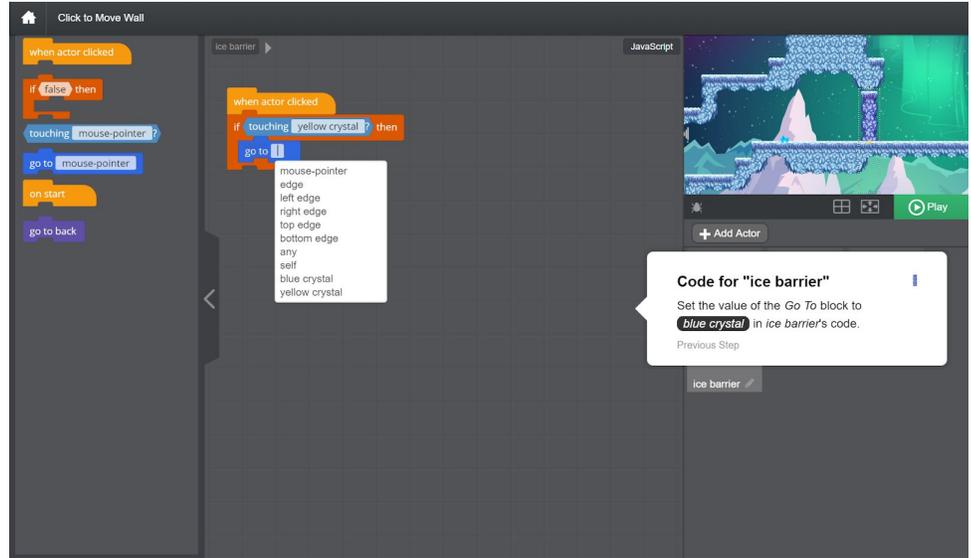
Click to Move Wall

First, cross the gap by jumping onto the floating steambots. Don't try to destroy them! Climb the floating steps to get to the gap.



Once you cross to the left side and are over the gap, jump down on the left side and talk to Turing to learn about coding concepts. When you're finished, click on him to continue. Walk over to the clue next to him and interact with it to start a tutorial.

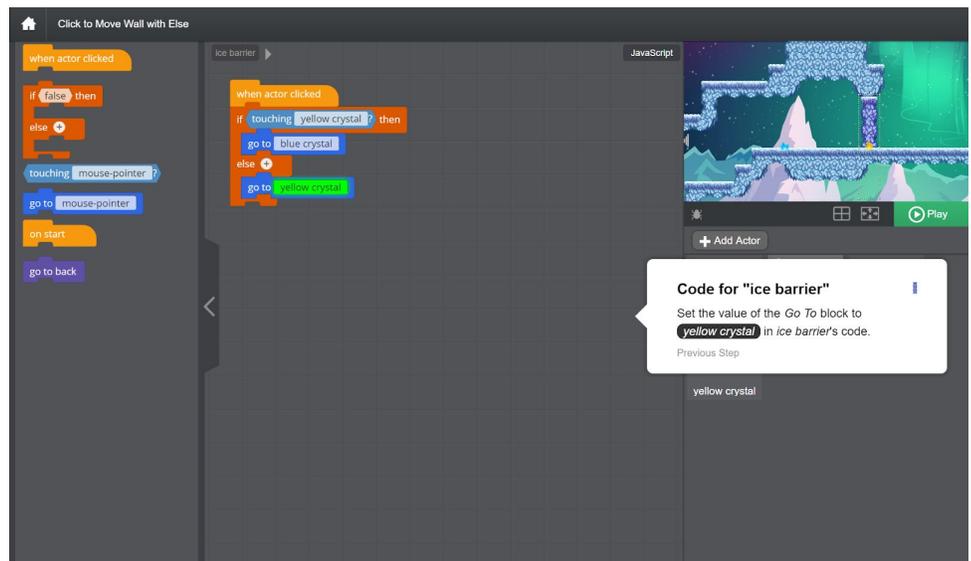
Move the ice wall out of the way to get to the other side. Program the wall to go from the yellow crystal to the blue crystal when clicked. Once you complete the tutorial and have the correct coding blocks, click Continue.

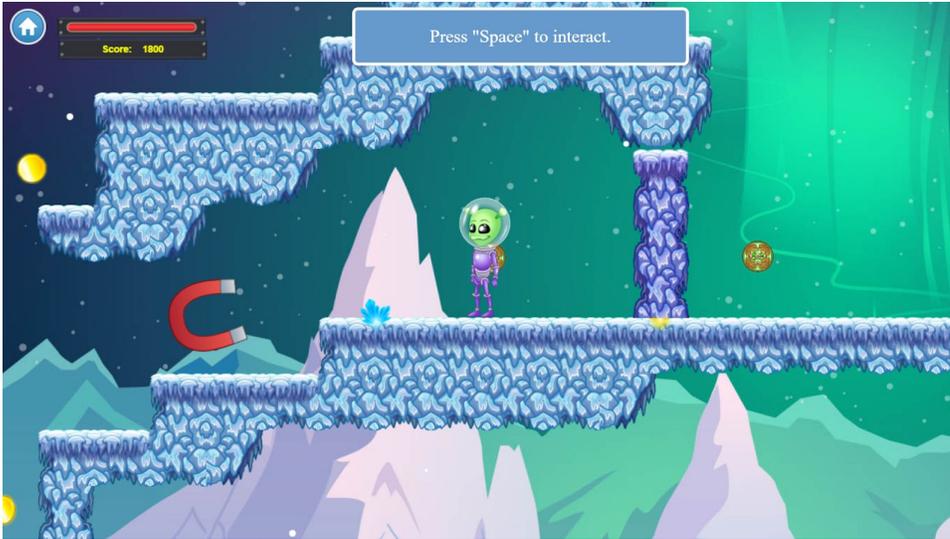


Click on the ice wall to move it to the blue crystal. If you try and click the wall again, nothing will happen - you're still stuck on one side. Walk over to the next clue that's in front of the wall.

Click to Move Wall with Else

In this tutorial, you'll program the wall to move back and forth (when clicked) from the yellow crystal to the blue crystal. Follow the instructions in the tutorial and click on Continue to see your code in action.

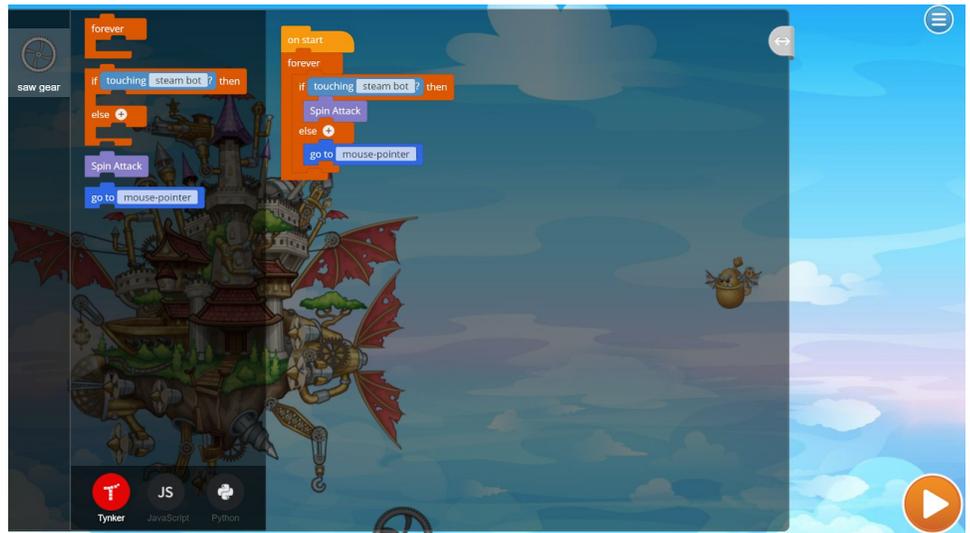




Now you can really get to the other side of the wall! Click on the ice wall again to move it from the blue crystal back to the yellow crystal. Walk over and interact with the magnet piece to start a puzzle.

Dive Bombers

The steambots are trying to dive bomb the Tower. Program the remote saw to deflect them. The saw will have to either follow the mouse pointer or use its 'Spin Attack,' Once you have these coding blocks, press Play to start the puzzle.



To win, you need to guide the 'gear saw' with your mouse-pointer and use it to knock the attacking steam bots out of the air by touching them with it.

Chapter 6: ACE



In this chapter, you'll add wings to Turing's Tower so it can fly up or down to dodge fiery rocks coming toward it.

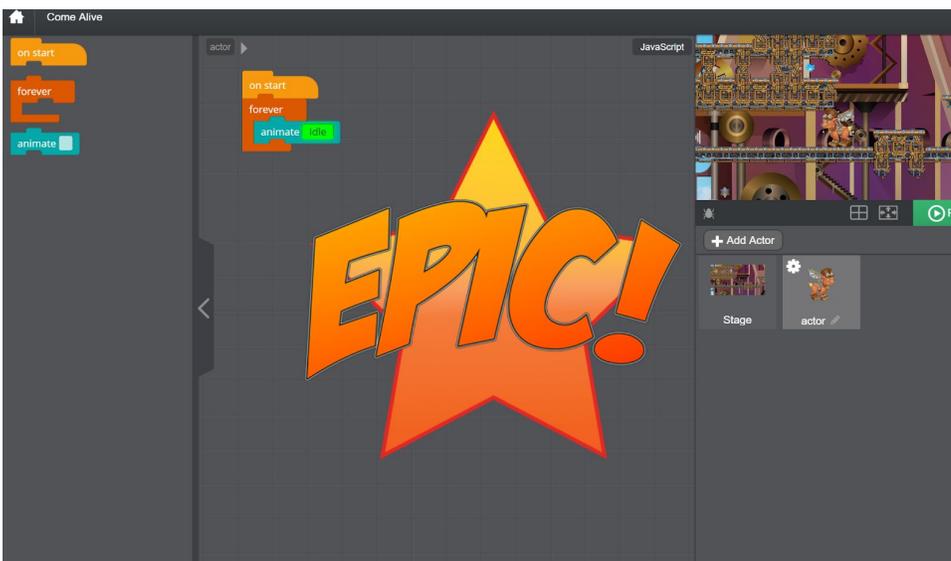
You'll need to program ACE, Turing's assistant, to move out of the way and blow down the barrier in your path. Interact with any clues along the way and find the next piece of the tower.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=1&l=3>

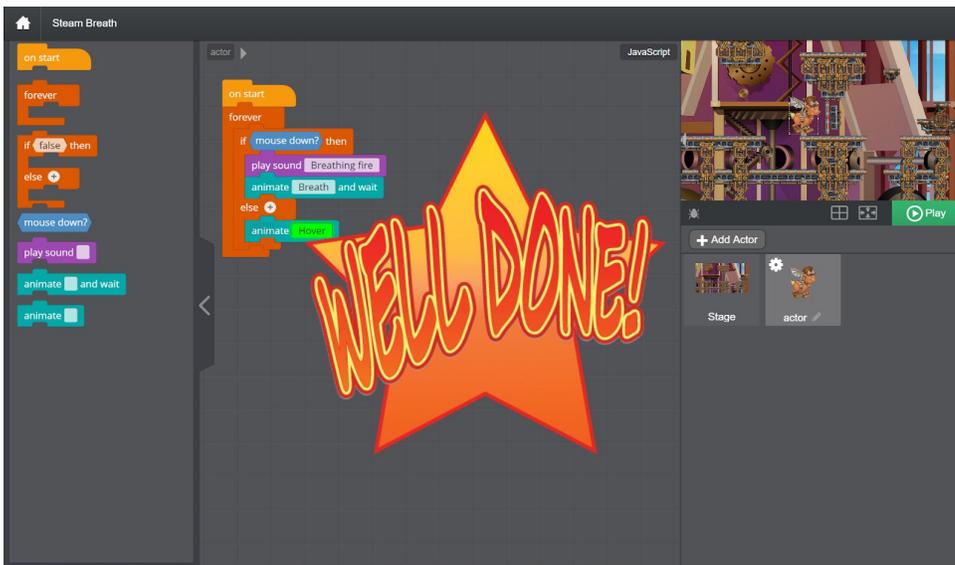
Come Alive

You've spawned back in Turing's Tower! Figure out where to go using the glowing green arrows on the screen. To pass the teleporter, climb back up like in the beginning of the course. Talk to Turing on the left side of the stage, then click on him to continue.



Turn to the right, jump over the gap, and walk toward the steambot. Press 'a' on your keyboard to use 'slash' to defeat it. Walk across the platform to see ACE. Interact with the clue in front of it to begin the tutorial, where you will program ACE with an 'idle' animation.

ACE has moved to another spot! Following the green arrows, walk to the right. You'll see a giant steambot walking on the platform in front of you. You can either run up and press 'a' to slash the steambot, or wait until it falls into the pit, where you can slash or ignore it. Move to the next clue and click 'Space' to interact with it and start another tutorial.

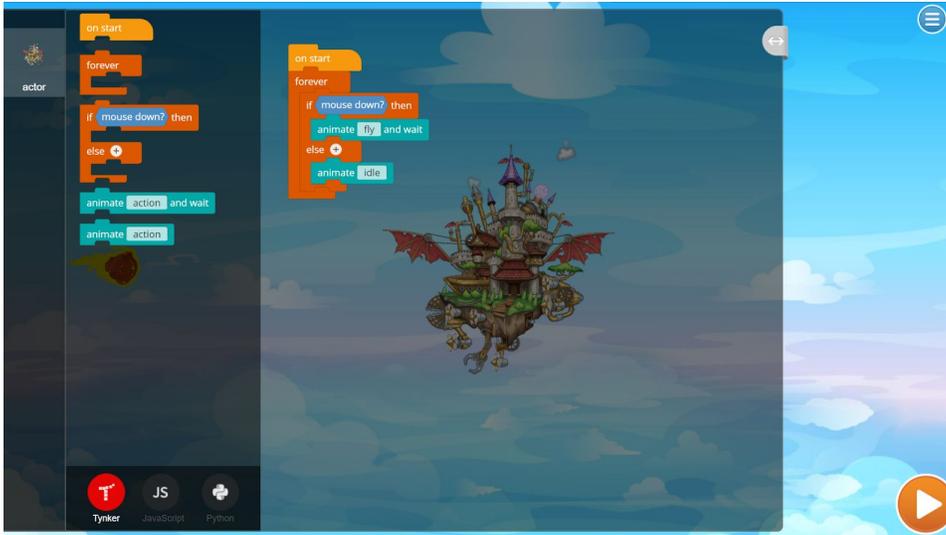


Steam Breath

In this tutorial, you'll program ACE to use his steam breath to blow down the barrier in your path. Follow the tutorial instructions, then click Continue to move on.

Now, when you click on ACE, he'll turn around and blow the barrier down. You can walk through him and go across to the other side. Turn around and climb the platforms to get to the wings, the next piece of the tower. Walk up and press 'Space' to interact with them and start a puzzle.





Flying Tower

Help the tower dodge the fiery rocks flying toward it! Program the tower to animate 'fly and wait' when the mouse is pressed down. If the mouse is not being pressed, the tower should animate 'idle.' Once you have these coding blocks, click the Play button.

Dodge the rocks to win! When the puzzle begins, the tower automatically starts going down, so you need to click your mouse to make the tower fly up. You don't have to click on the actual tower to fly up – just click anywhere on the screen.



Chapter 7: High Flying



In this chapter, you'll swim, get rid of coral barriers, and learn how to program the tower's rudder.

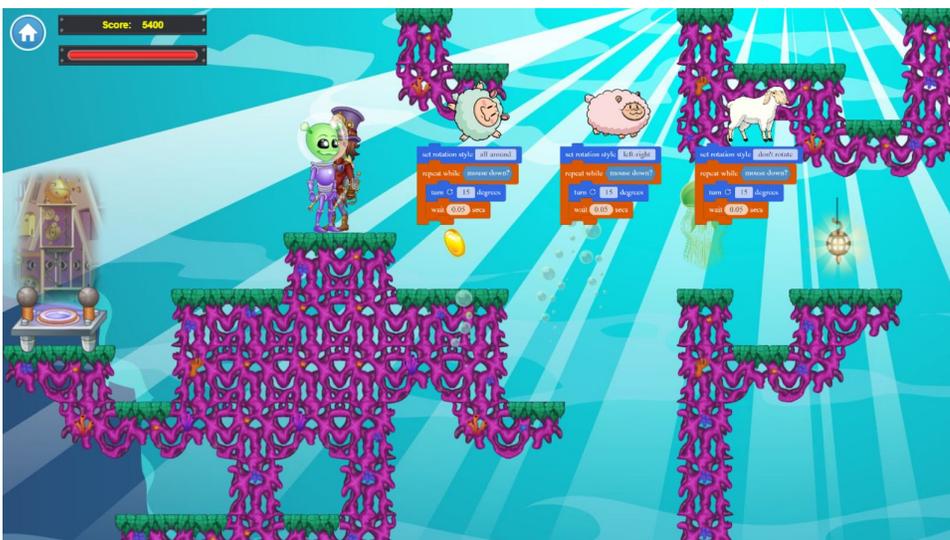
Move from clue to clue to clear the coral barriers in your path. Make sure to avoid the red coral – it will hurt you! The sharks and jellyfish are harmless. To advance, you will need to program the tower's rudder to steer it away from danger.

The answer key to this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=3&l=1>

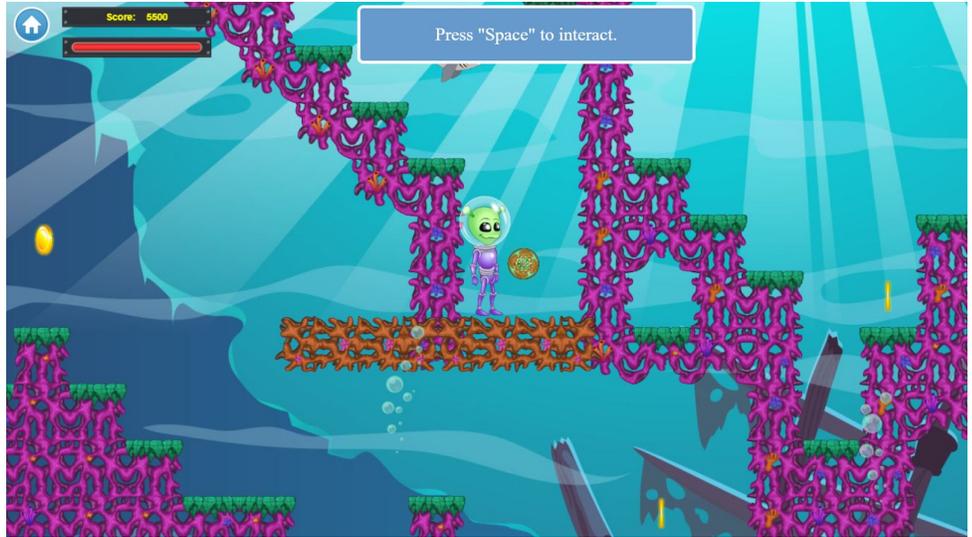
Underwater World

After you've finished the Flying Tower puzzle, you should be back in Turing's Tower. Jump over the gap on the left so you can reach the teleporter. Click 'Space' on the teleporter to be taken to Underwater World!



Once you've teleported into Underwater World, you need to head down to the orange coral to find a clue. But first, swim over and talk to Turing to learn about coding concepts. Click on him when you're finished.

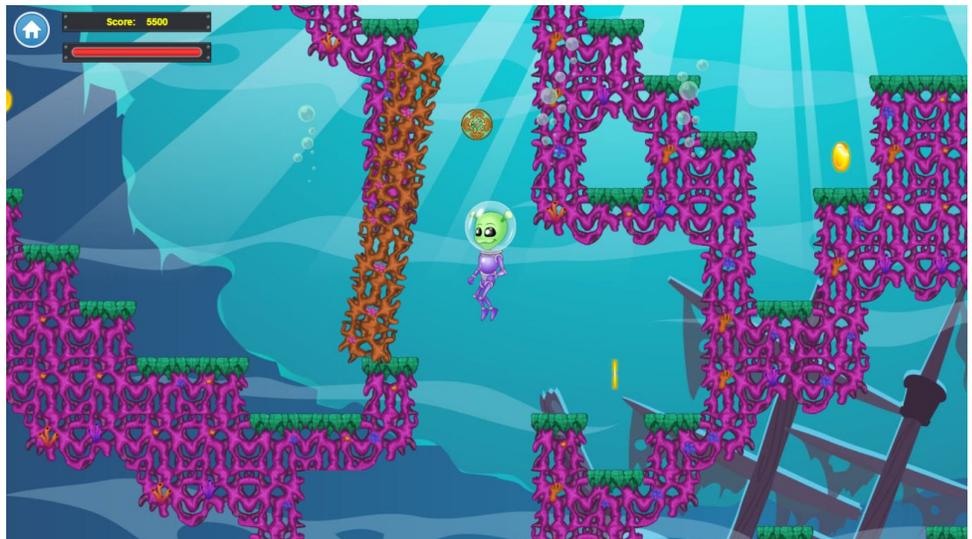
After you've talked to Turing, head down the open gap to the right and go all the way down. You need to interact with the clue you'll see on the bottom to start a tutorial.

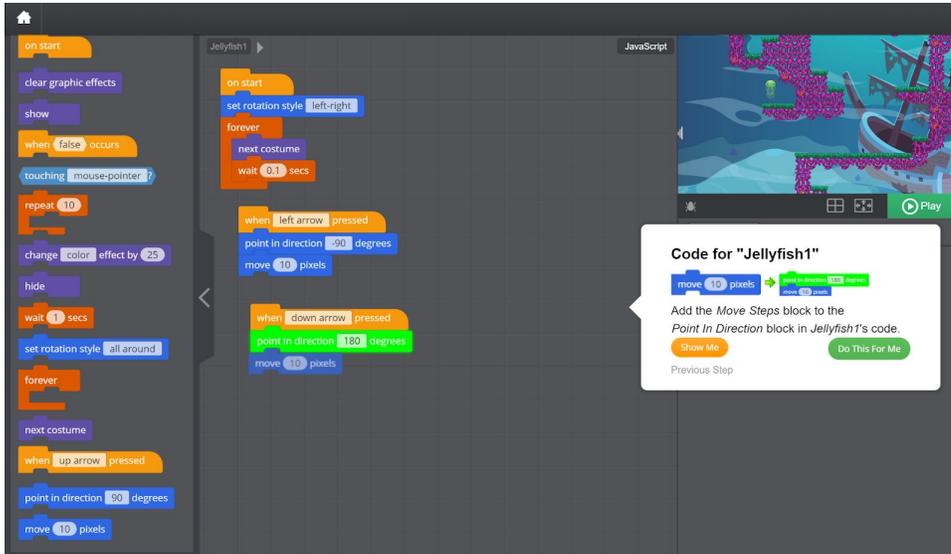


Repeat While

You need to reach the bottom of the stage! Program the long, orange piece of coral below you to turn so you can go to the bottom of the stage. Complete the tutorial then click Continue.

Click on the orange coral to turn it, and go all the way down to the next clue. Don't worry about the sharks – they're harmless.





Degrees and Rotation Style

The jellyfish can dissolve the coral barriers in your way! Program the jellyfish to move and dissolve the barriers. Complete the tutorial with these code blocks and click Continue.

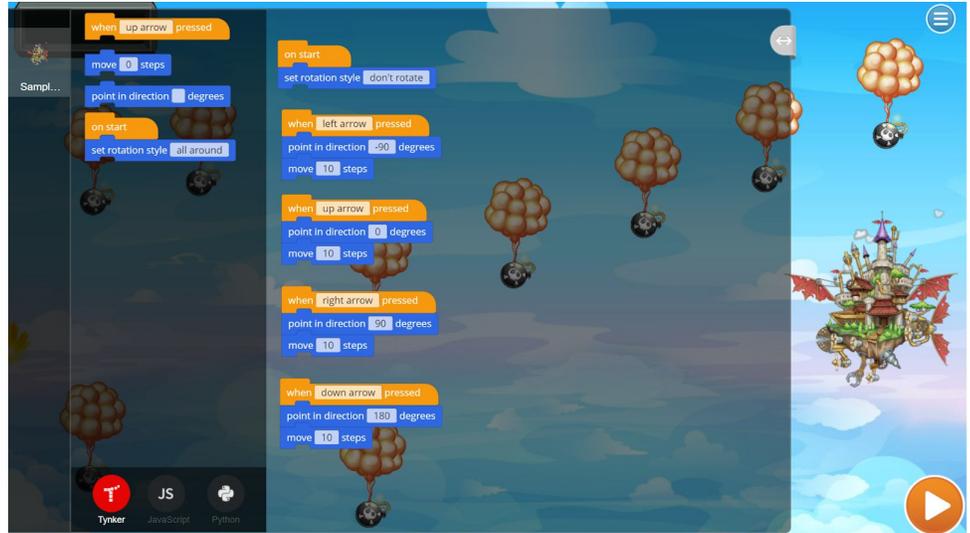
Now you can click on the purple jellyfish and drag it toward the coral barriers. Once they're dissolved, go through to the other side and swim down



Once you go down far enough, you'll be stopped by the tower's wings. Interact with them to start a puzzle.

Minefield Maze

You need to dodge the air mines. Program the tower's rudder to steer it clear of the mines. Use these code blocks and press Play to start the puzzle.



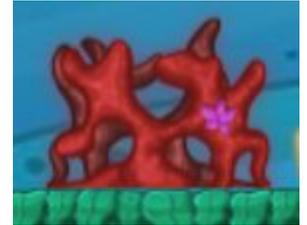
To win, you need to use the arrow keys to move the tower. While dodging the air mines, move the tower to the other side and touch the yellow crystal on the other side.

Chapter 8: Deflector



In this chapter, you will use an octopus to get rid of jellyfish, use jellyfish to remove more coral barriers, and find the next piece of the tower – the purple orb.

As you move from clue to clue, beware of the red coral, which will decrease your health. Interact with clues to get through to other parts of the stage, and find the purple orb to start a puzzle.

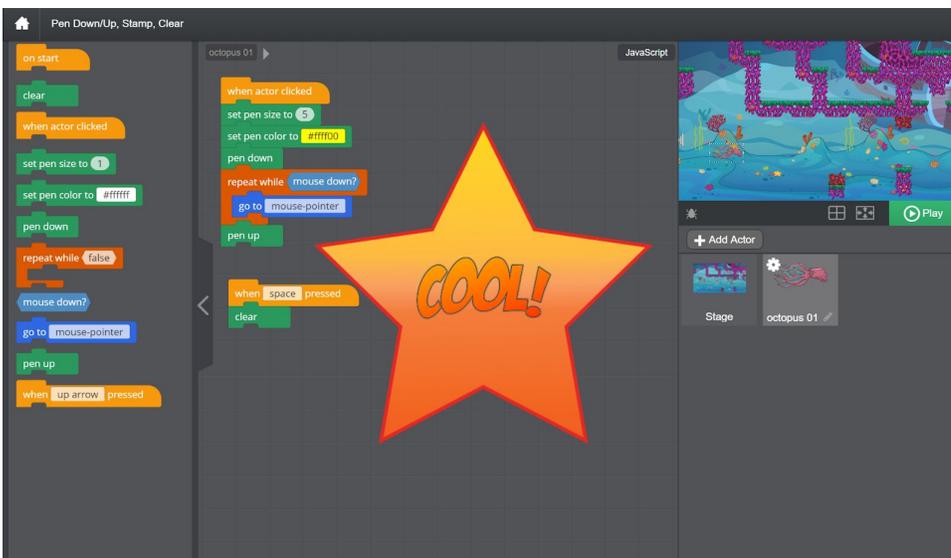
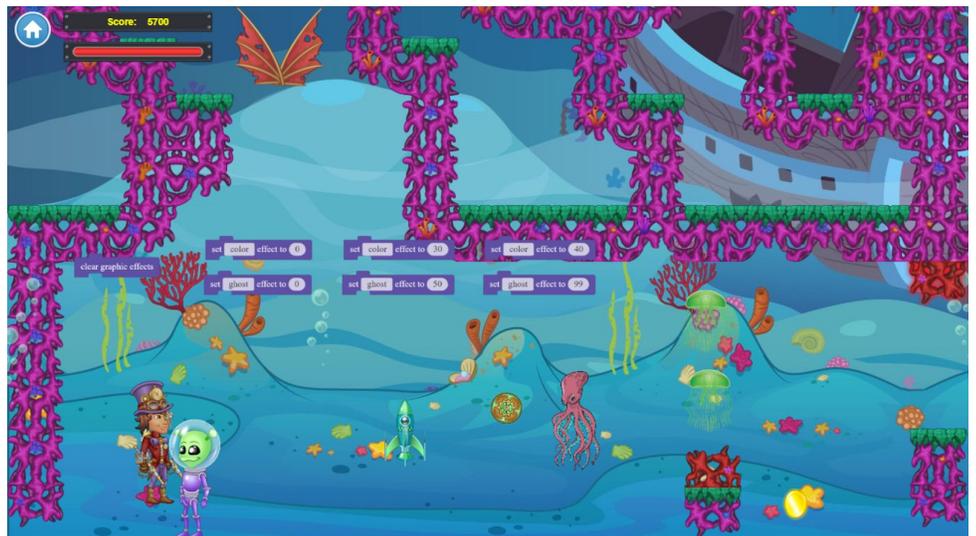


The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=3&l=3>

Pen Down/Up, Stamp, Clear

Go under the wings and talk to Turing to learn about coding concepts. After you finish talking to him, click on him to continue. Next, swim over to the octopus and interact with the clue.



The octopus's ink can frighten the jellyfish and make them move out of the way. Program the octopus to draw when you drag it. Use these coding blocks and click Continue to complete the tutorial.

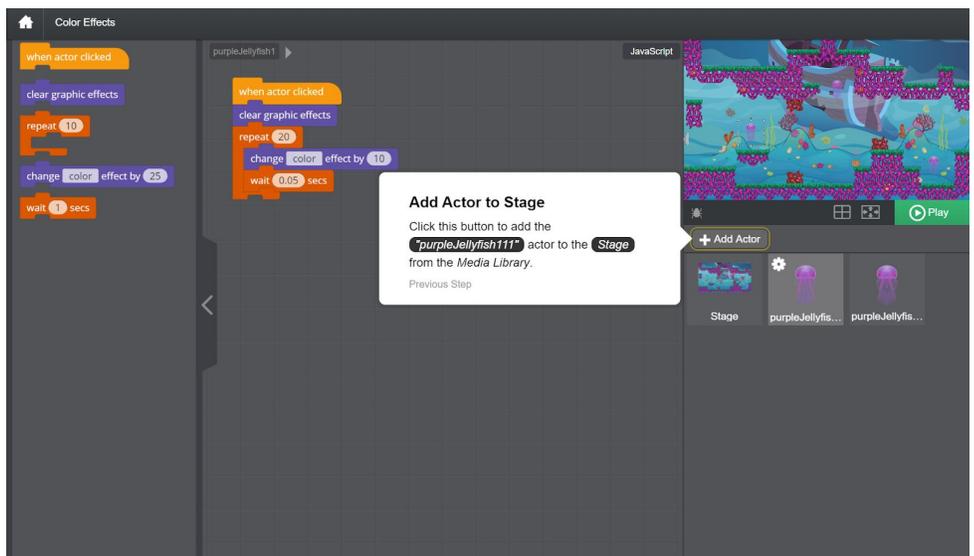
Now you can drag the octopus toward the green jellyfish. Once they move out of the way, swim to the other side. Remember to watch out for those glowing, red pieces of coral.



Swim across to find the purple jellyfish. Interact with the clue in front of the jellyfish to start a tutorial.

Color Effects

The purple jellyfish can open the coral gate ahead. Program the purple jellyfish to remove the coral when you click on them. Once you have the correct code blocks, click Continue to finish the tutorial.

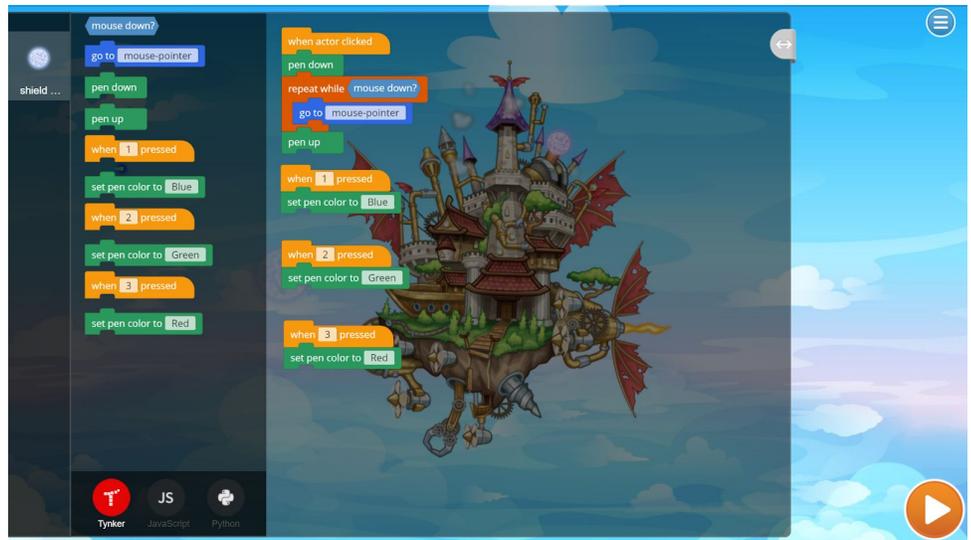




Click on the purple jellyfish to remove the orange coral. Go right, then up toward the purple orb. Click 'Space' on the purple orb to interact with it and start a puzzle.

Shield Generator

Steambots are flying around and shooting lasers at the tower. Program the tower's shield generator and the purple orb to deflect the lasers. Remember: lasers can only be deflected by lines of the same color. Use this code and press Play to start the puzzle.



Chapter 9: Power Source



In this chapter, you will have to find clues to move jellyfish that are in your path. Then you will collect the next piece of the tower, the power source.

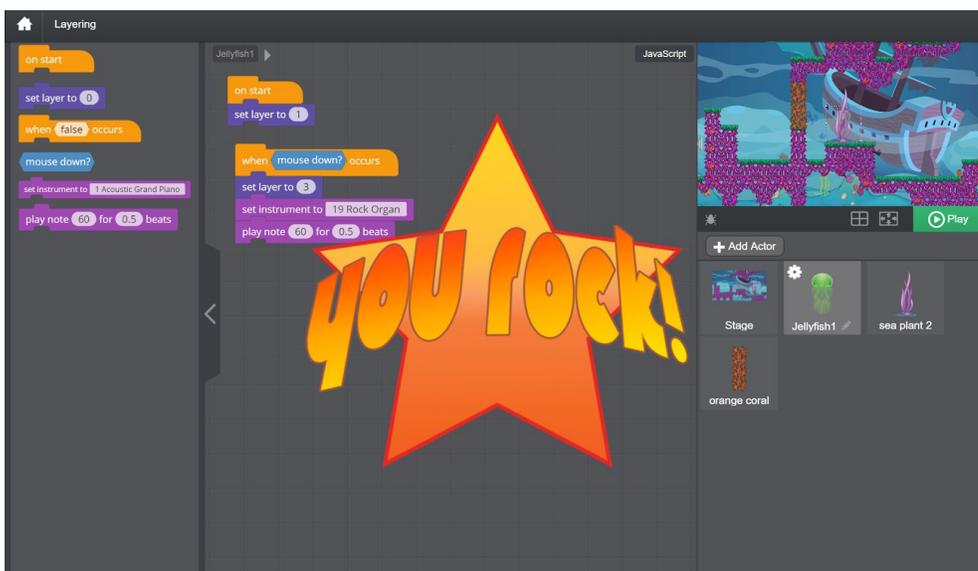
You will use coding concepts such as 'Layering' and 'Sounds' to dissolve coral barriers and move jellyfish. This will open the path to reach the next tower piece, where you will program teleporters to move the tower so you can collect crystals.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=3&l=5>

Layering

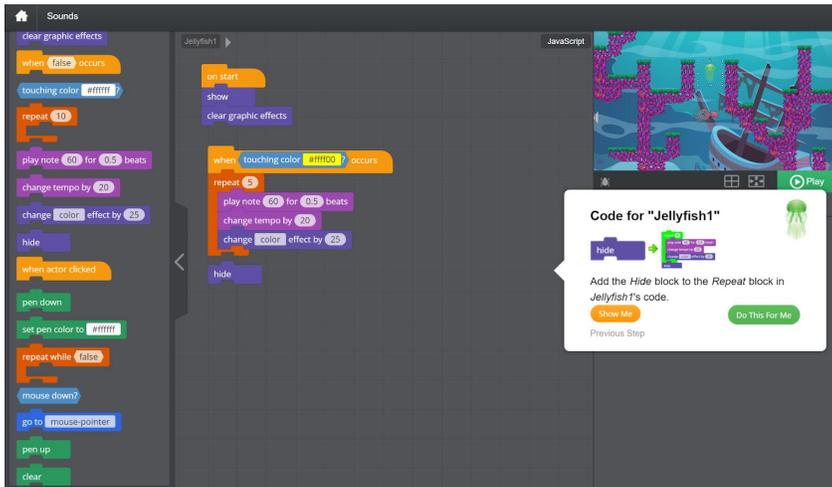
First, you will have to swim up, left, then go down to talk to Turing to learn more coding concepts. Once you've finished talking to Turing, click on him to continue. Next, interact with the clue next to the purple plant to start a tutorial.



The jellyfish can dissolve the coral barrier with its sonic blast. You need to get the jellyfish to come out from behind the seaweed. Once you finish the tutorial, click Continue to move on.

Sounds

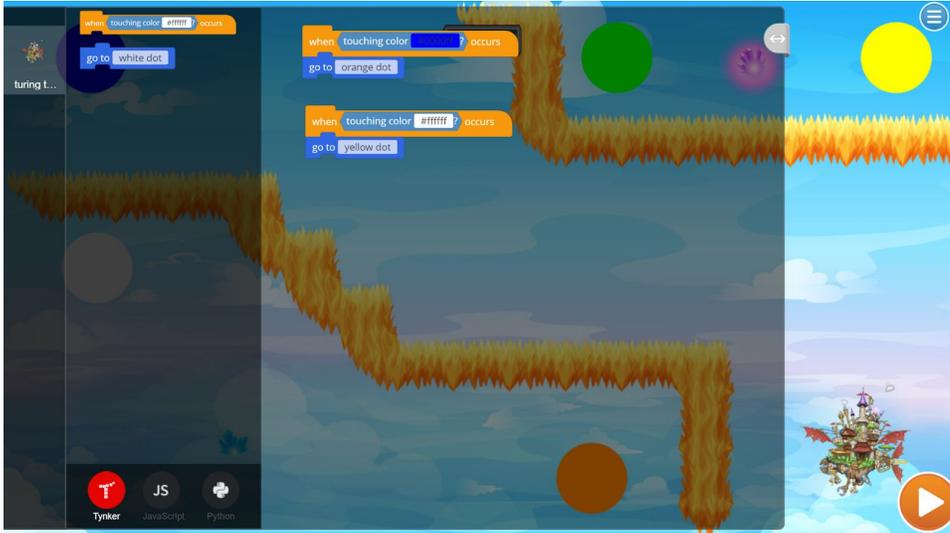
Swim up! Eventually, you'll run into an octopus and jellyfish. You need to interact with the clue next to the octopus. This will start a tutorial to move the jellyfish in your path.



The jellyfish above the octopus is stubborn. You need to program the jellyfish to move out of the way when it touches the octopus's ink. Once you complete the tutorial, click Continue.

Drag the octopus to the jellyfish. The jellyfish will make a sound, change colors, then disappear. Swim up and to the right to interact with the next tower piece.





Maze Runner

The fire is obstructing your path to the crystals. Use the colorful portals to teleport around the fire maze and collect the crystals. Move the tower using the arrow keys. There is more than one correct solution for this puzzle!

Chapter 10: Navigator



In this chapter, you will learn coding concepts to move coral and jellyfish out of your way. You'll then find the next piece of Turing's Tower, the navigator, and program the tower to move.

The first thing you need to do is talk to Turing. Then, you can look for clues to complete tutorials. After you've found two clues, search for the navigator piece and start a puzzle to help the tower collect energy crystals.

The answer key to this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=3&l=7>

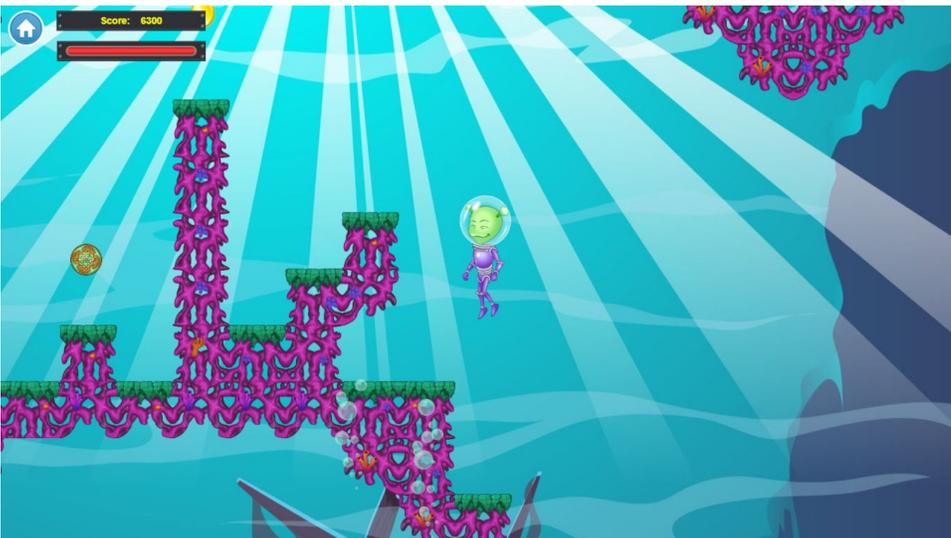
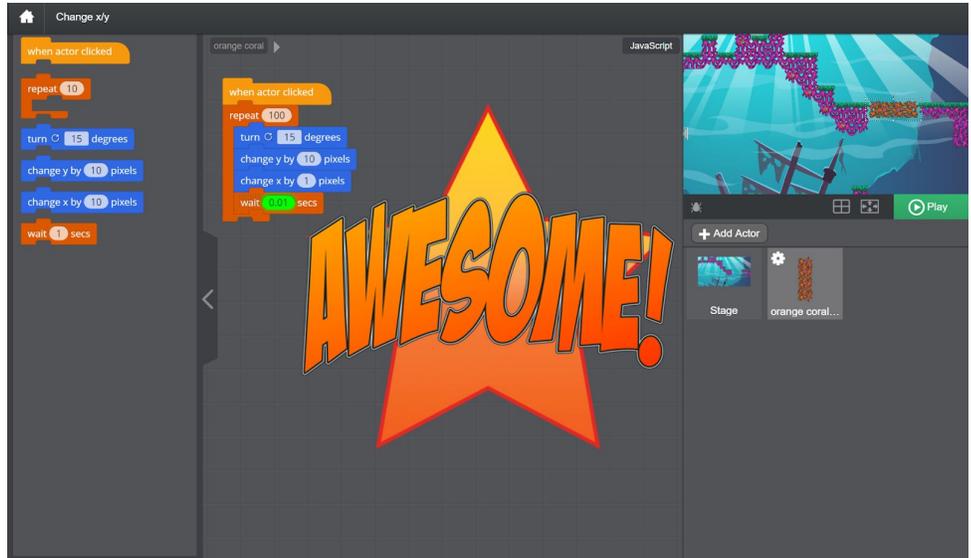
Change x/y

Swim down to talk to Turing. Once you've learned the coding concepts from Turing, click on him to continue.



Head toward the orange coral. You need to swim back up, then to the right, to interact with a clue.

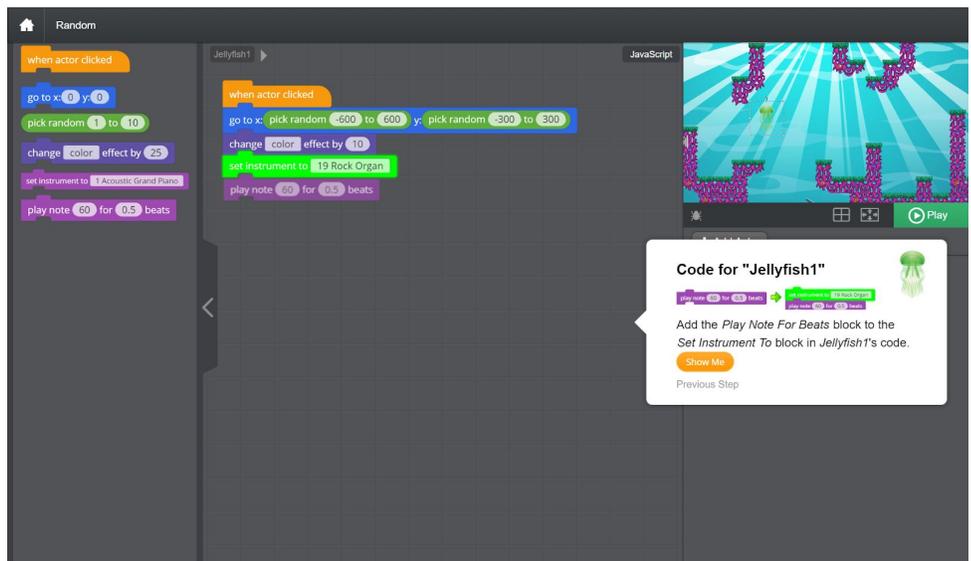
Complete the tutorial with these coding blocks and click Continue to move on.



Click on the orange coral to make it move out of your path. Swim up and follow the path to the next clue so you can start another tutorial.

Random

The jellyfish are blocking the way. Code them to move when clicked on so you can progress through the stage. Once you complete the tutorial, click Continue so you can move the jellyfish.

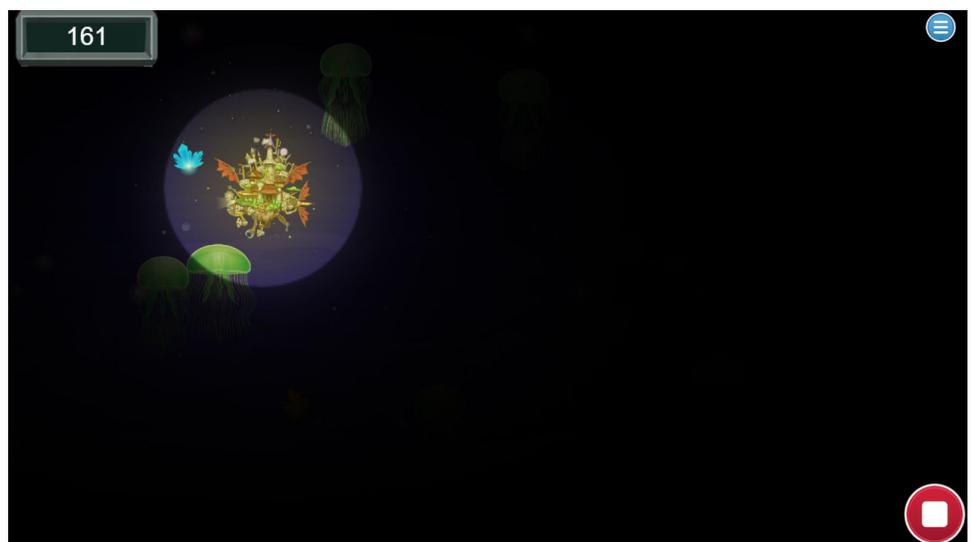
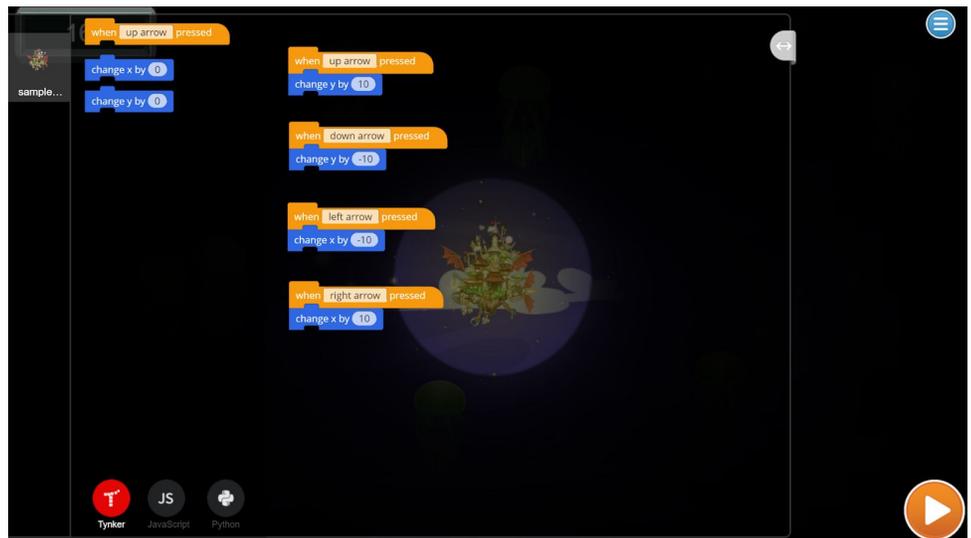




Click on the jellyfish to move them and clear your path. You may have to click on some more than once. Swim across to the other side and interact with the next piece of Turing's Tower, the navigator, to start a puzzle.

Night Mission

Help guide the tower to the energy crystals. Be careful not to hit any of the giant jellyfish. Luckily, you have some light, but it can still be difficult to see in the dark. You need to code the tower to move with the arrow keys. Use these code blocks, then press Play to start the puzzle.



Chapter 11: Teleportation



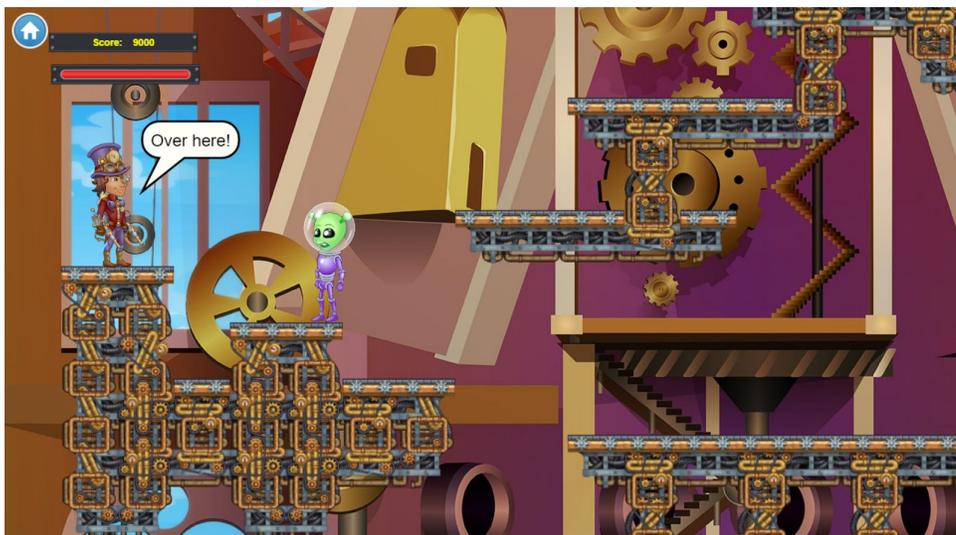
In this chapter, you will use teleportation to progress through the stage. First, find and talk to Turing to learn about coding concepts. Then move the security robot by using a password and use the robot's head as a platform to get to the next tower piece, the teleporter. You can then use the tower's teleporter to collect crystals.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=1&l=5>

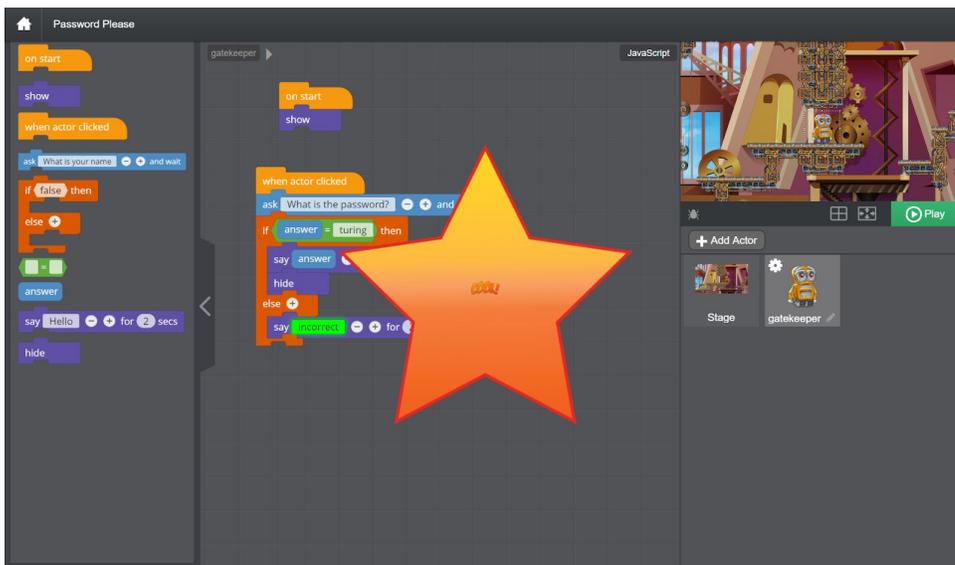
Password Please

You need to get to the teleporter piece! From the teleporter you just used, run left and double jump mid-air to land on the left side. This can be difficult; another option is to drop down, grab the steambot's attention, then jump on top of its head as it runs toward you. Now you can jump over to the left.



Run all the way across to the left side, then talk to Turing to learn about coding concepts. Click on him to continue.

Next, jump up and go to the right. You'll run into a security robot. Interact with the clue next to it to start a tutorial.



Once you've completed the tutorial with the correct coding blocks, click Continue.

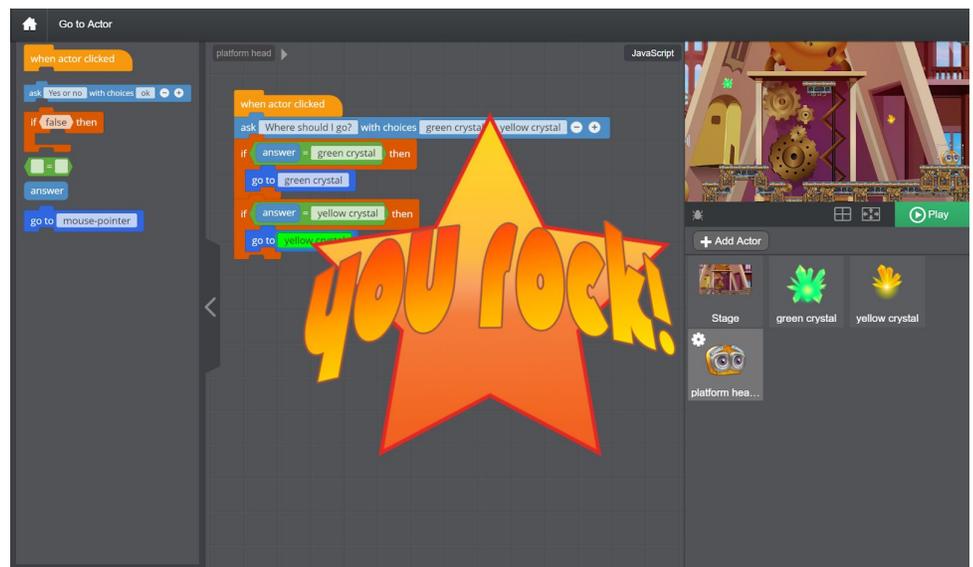
Now interact with the security bot. It will ask you for the password. In the tutorial, you should have set the password to "turing." Type that in and press enter to make the security bot disappear, then move to the other side.



Go across to the other side, defeat the steambot in your way, then interact with the clue on top of the security bot's head.

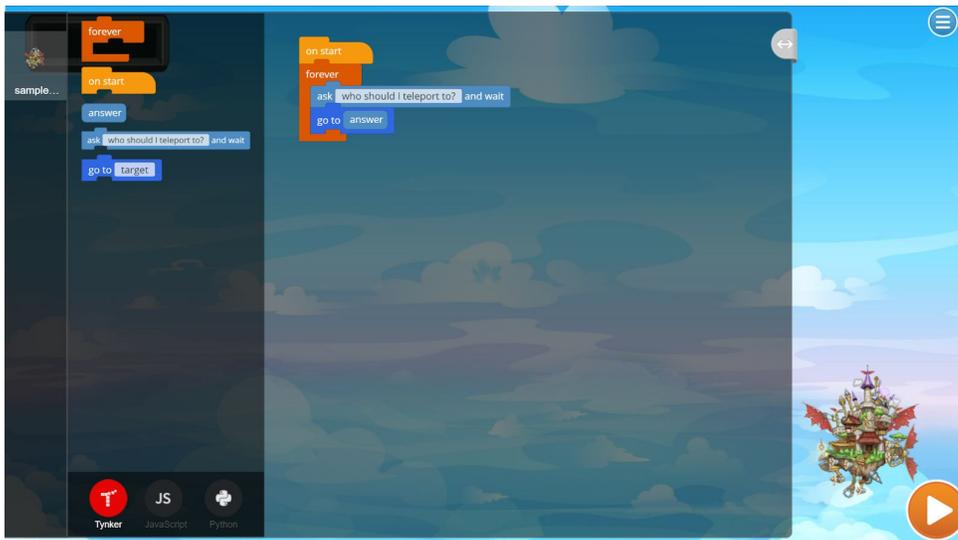
Go to Actor

In this tutorial, you will program the robot head to teleport to where you tell it. You will use the robot head as a platform to get to the teleporter piece on the top left. Once you complete the tutorial, click Continue.



Click on the robot's head to choose where to teleport it to. When prompted, click the 'yellow crystal' choice. Next, you can jump on top of the robot's head and use it as a platform. Jump onto the next platform in front of you, then make the robot's head go to the 'green crystal.'

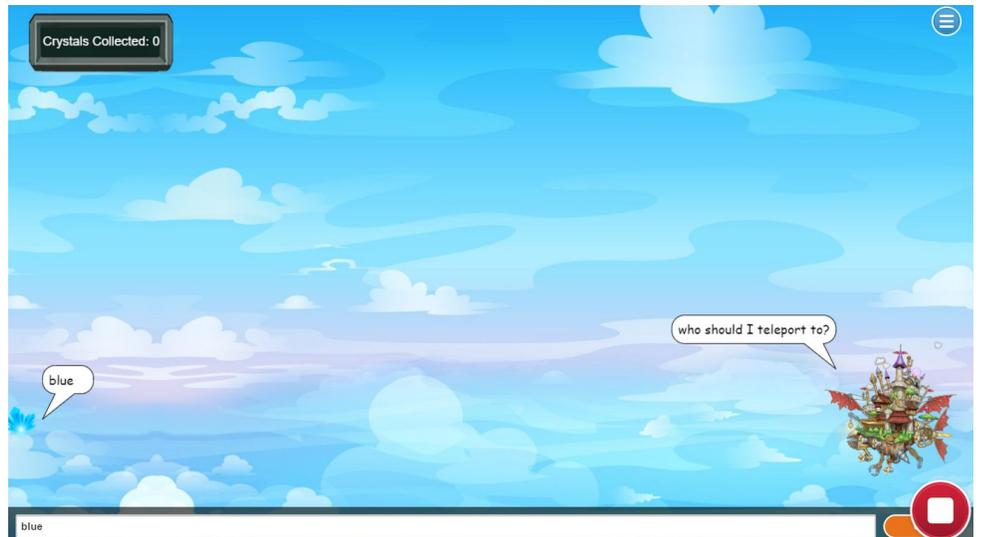
Jump to the robot's head again, now that it's on the 'green crystal.' Jump to the teleporter piece, interact with it, and start a puzzle.



Crystal Rush

There is an updraft that's causing crystals and giant jellyfish to fly upwards! You need to code the tower's teleporter to teleport to the crystals so you can catch them. Once you have the correct code blocks, click Play to start the puzzle.

To complete the puzzle, you need to type the crystals' names quickly so you can teleport the tower to collect them. Avoid the rising jellyfish! Collect 5 crystals to win.



Chapter 12: Cannoneer



In this chapter, you will program crystals in different ways to clear your path. You'll collect clues and search for the next tower piece, the cannon.

First, talk to Turing to learn coding concepts that you can use to complete tutorials and puzzles. Interact with each clue along your way, and you'll eventually find the cannon, which you will use to shoot down enemies.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=4&l=1>

Click the Crystal

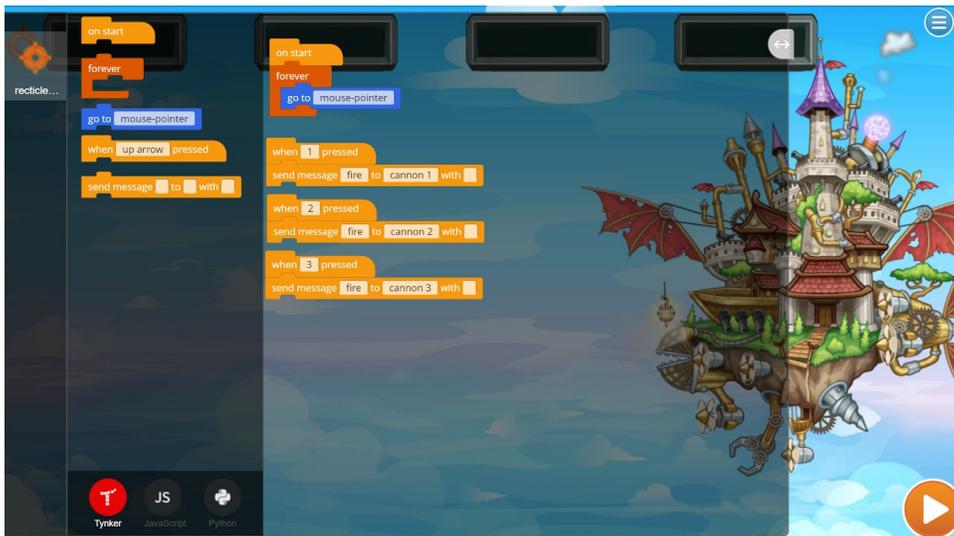
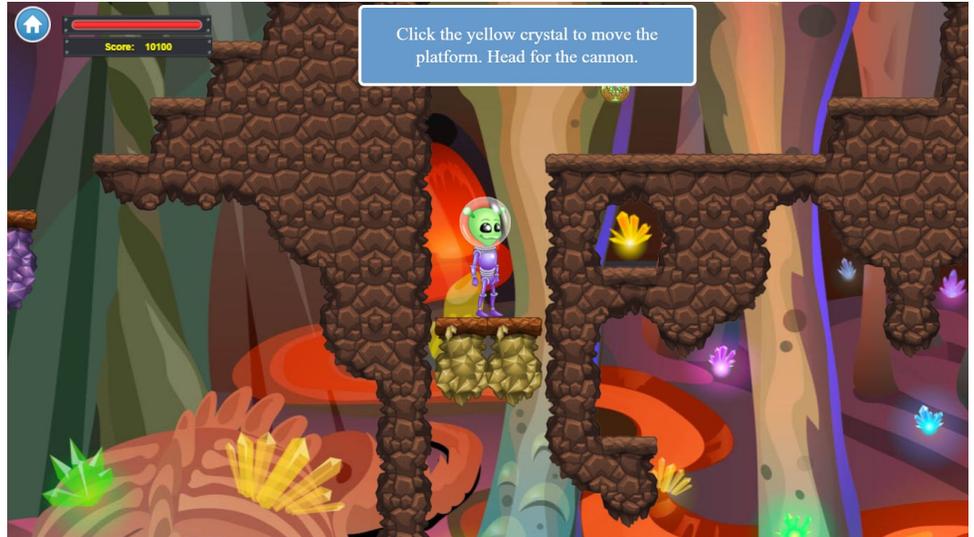
You will first need to get to the teleporter to go to Underground World. Luckily, it's just to your left. Move your character to the teleporter and interact with it, defeating any enemies in your path.



Interact with the clue in front of you to enter the tutorial. Once you complete the tutorial, speak to Turing then click him to continue. Now you can click on the yellow crystal below you to make the platform disappear. Go down and move to the left to find another clue.

Click the Crystal 2

In this tutorial, program the platform to move up and down when the crystal is clicked. Once you complete the tutorial, stand on the platform and click on the yellow crystal. When you reach the bottom, interact with the cannon piece of the tower to start a puzzle.



3 Cannons 1 Tower

Steambots are attacking! Program the tower's cannons to shoot at the flying steambots. The cannons take time to reload, so make sure to shoot them one at a time. When you have the correct code blocks, press Play.

Aim the cannon with your mouse and press 1, 2, and 3 to fire.



Chapter 13: Bot Zapper



In this chapter, you will defeat a giant steambot, dissolve a barrier with crystals, and blast away enemy missiles with the tower's next piece, the laser.

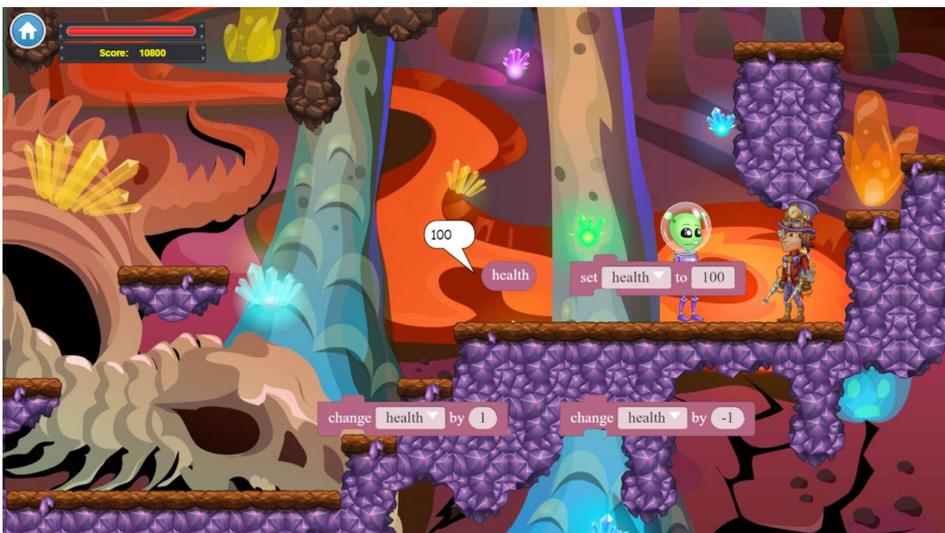
Interact with clues to get through any obstacles, and use the coding concepts you learn to code the laser Actor to shoot enemies.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=4&l=3>

Give Him Health

Move toward the giant steambot and interact with the clue to start a tutorial. The steambot is invincible, so program the bot to have health. Once you complete the tutorial, press the 's' key to shoot the steambot. Shoot it multiple times until it is destroyed.



Jump down the opening from which the steambot leaves. Go down and talk to Turing to learn about coding concepts. Click on him to continue. Next, keep moving left, then interact with the next clue to start another tutorial.

Global Variables

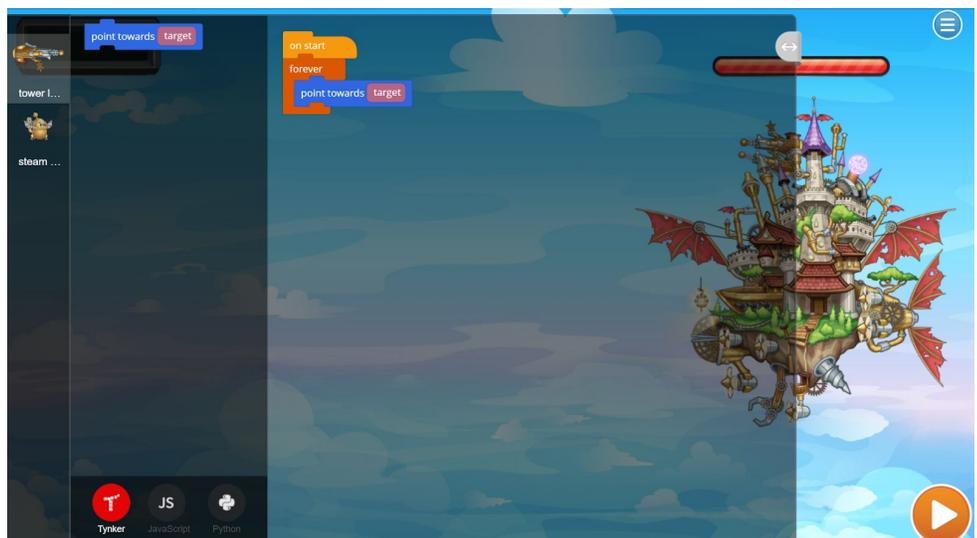
In this tutorial, you will need to code the crystals to dissolve the ore column by using global variables. Once you complete the tutorial and click Continue, click on all 3 crystals to dissolve the ore column.

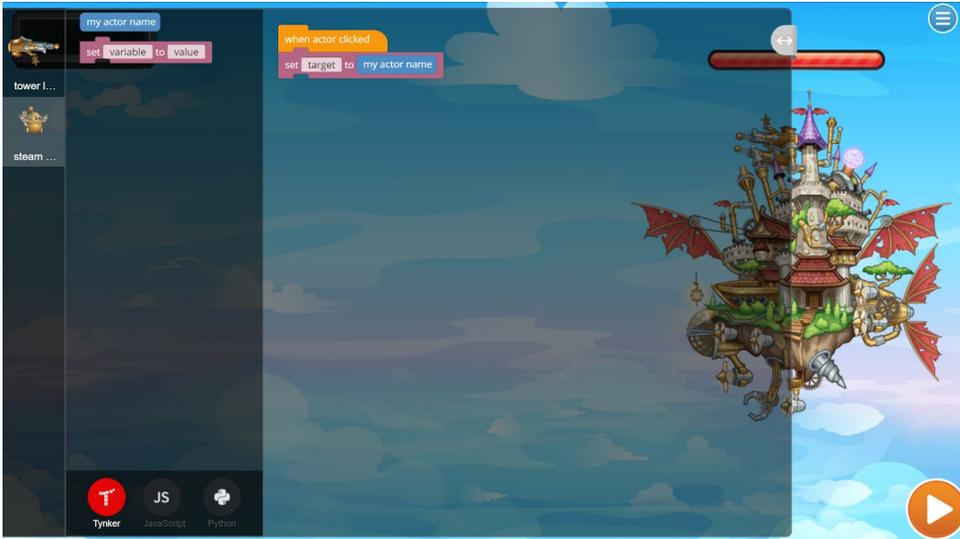


Once the ore column dissolves, jump down and interact with the next tower piece, the laser gun, to start a puzzle.

Laser Attack

Missile barrage! You need to blast the enemy missiles with the tower's laser. Code the laser to point toward a variable called 'target.'





Try hacking the missiles so they set themselves as the laser's target. Once you have the correct code blocks on both Actors, click Play.

Click the enemies to aim and shoot a laser at them. Score 50 points to win!



Chapter 14: Steam Digger



In this chapter, you will program platforms to bridge a gap, program crystals to hide metal blocks, and program the tower's parts to avoid obstacles.

As you go through the stage, look out for Turing or any clues! Be careful not to fall down into the fire.

The answer key to this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=4&l=5>

Two Platforms

From the laser piece, jump down, then run toward the right side. Talk to Turing to learn about coding concepts.



Next, go left and head for the turquoise ores and interact with the clue to start a tutorial.

After you complete the tutorial, drag the turquoise ores to the left. Then, jump on them to cross to the other side.



After you've reached the left side, turn around and go up toward the right to find another clue.

Drag the Crystals

There are colored blocks of metal blocking your path. In this tutorial, you will program the blocks to disappear when they're touched by crystals of the same color.

 A screenshot of the Tynker code editor. The main workspace shows JavaScript code for a 'yellow crystal' actor. The code includes:

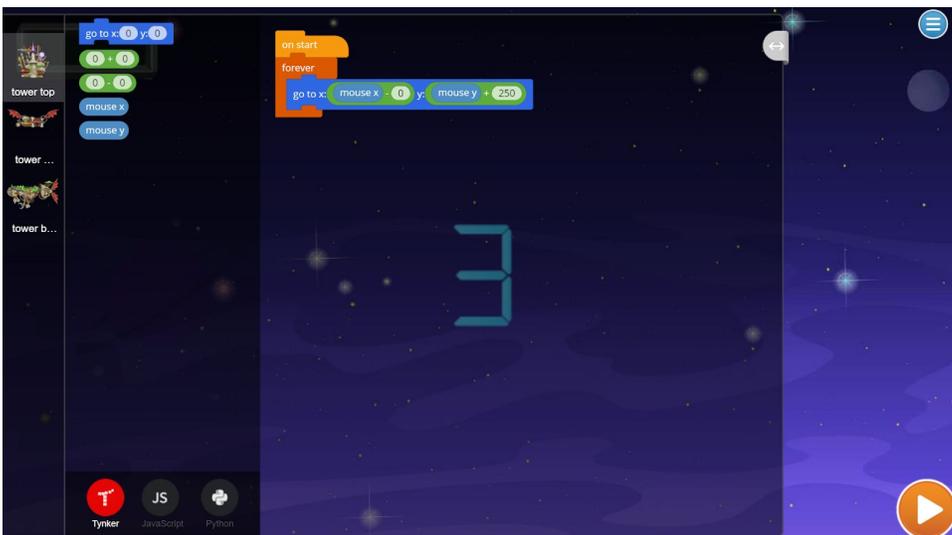
- on start:** show, set value to 0, when I receive, hide, when actor clicked, repeat while (false), mouse down?, go to mouse-pointer, if false then, type, property of any, name of actor touched, send message to any with.
- when actor clicked:** repeat while (mouse down?), go to mouse-pointer, if type = property type of name of actor touched then, send message hide to name of actor touched with.
- on start (second instance):** set type to yellow.

 A tooltip on the right says: "Code for 'yellow crystal' Set the value of the Set Variable To block to yellow in yellow crystal's code." The actor palette on the bottom right shows 'blue crystal', 'yellow crystals...', 'blue ore platf...', and 'yellow ore pl...'.



Drag each crystal to the metal block with the same color. This will hide the blocks and clear the path for you.

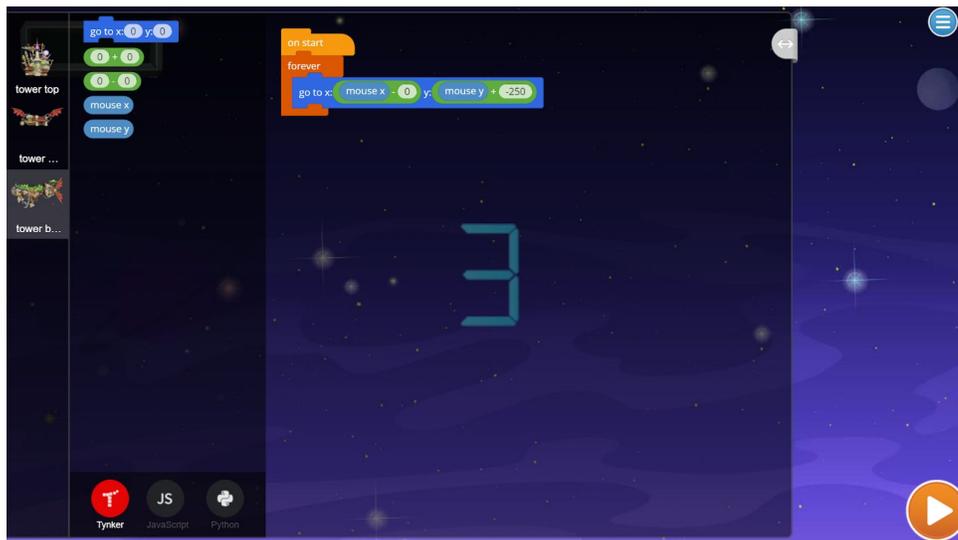
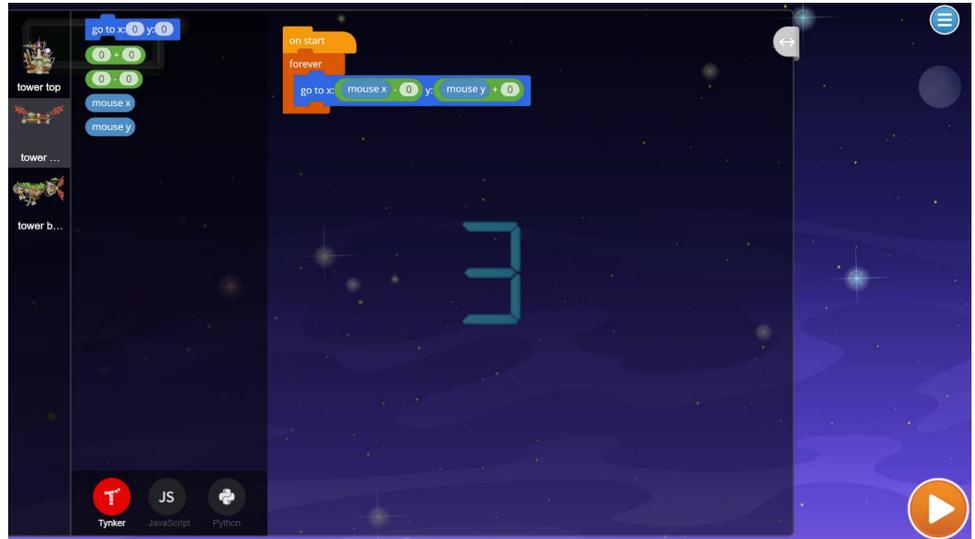
Jump and move toward the left, then go higher and to the right. Walk up to the purple orb and interact with it to start a puzzle.



Meteor Shower

The tower will have to split up to avoid the meteors flying toward it. Program the tower's parts to avoid the obstacles.

You will need to have the parts fly at different distances from the mouse pointer.



Once you have the correct code blocks for each Actor, click Play to start the puzzle.

Dodge the meteors by moving the ship's parts with the mouse pointer. Make sure the meteors fly in between the parts. Survive all the waves to win!



Chapter 15: Evasive Maneuvers



In this chapter, you will use drills to break through ore barriers in your path and collect the next piece of the tower, the hook.

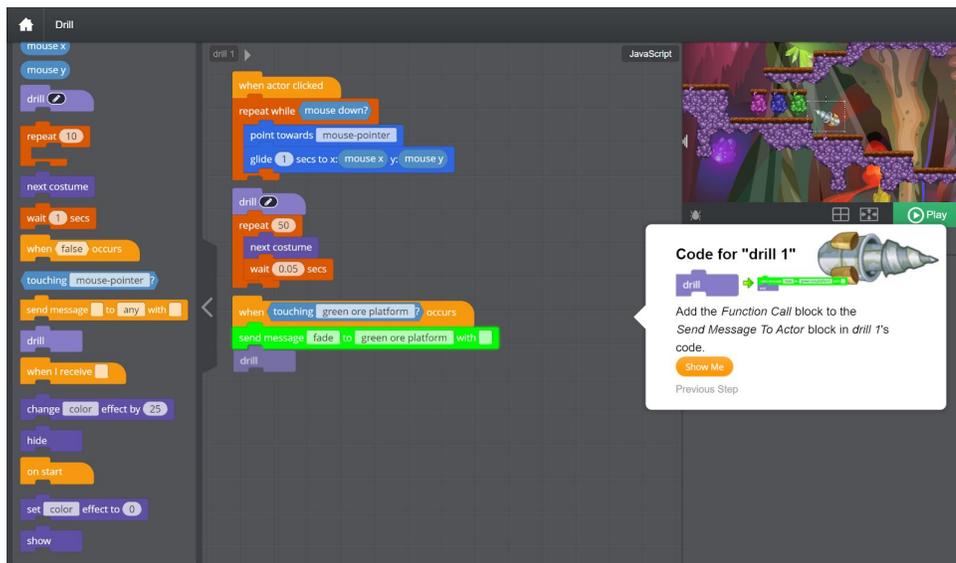
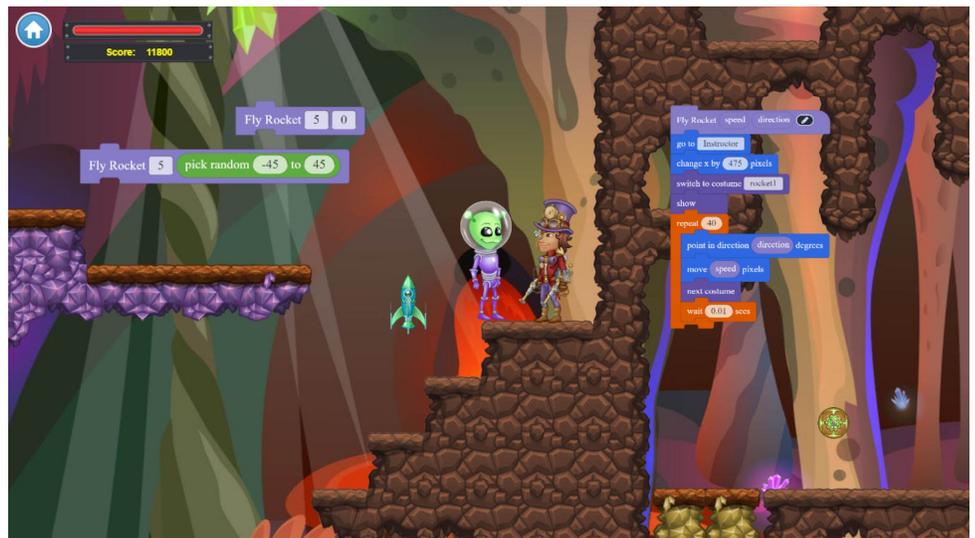
Look for Turing to learn about coding concepts. As you progress through the stage, watch out for clues, as they will allow you to use the drills to clear a path. Once you find the hook piece, you'll program it to grab crystals for Turing's Tower.

The answer key for this chapter's puzzle can be found at:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=4&l=7>

Drill

First, you need to head to the right side. Talk to Turing to learn about coding concepts, then click on him to continue.



Next, go left to head toward the drill. Interact with the clue on the way to the left side to start a tutorial. You need to code the drill to break the ores. After you complete the tutorial, click Continue to move on.

Click and drag the drill to the ore.



Once the ores disappear, cross over to the other side and head for the next drill, interacting with the clue in front of it.

More Drills

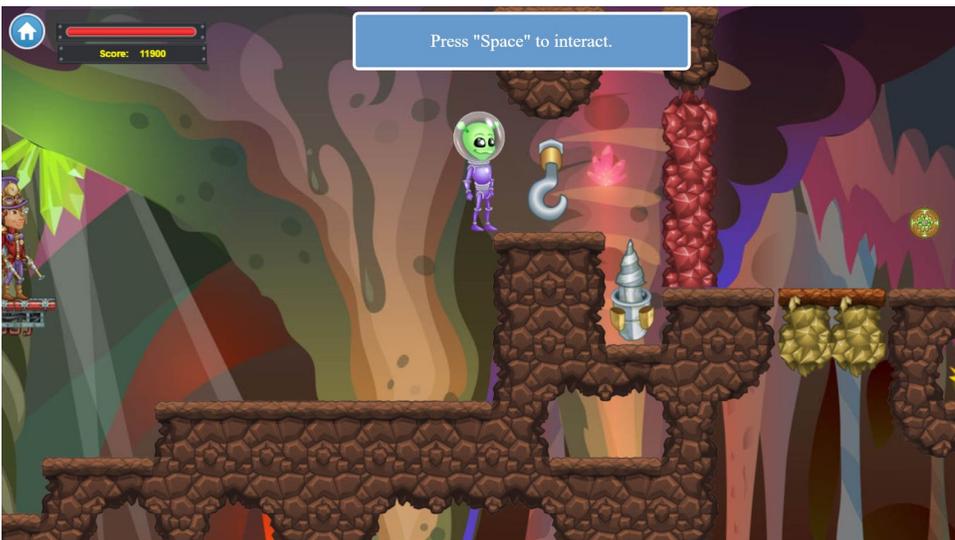
These three ores take different amounts of time to drill through. In this tutorial, you will code the drill to animate for different lengths of time. Once you complete the tutorial with the correct blocks, click Continue.





Click and drag the drill to the ores to clear your path.

Once you cross to the other side, walk up and talk to Turing to learn about more coding concepts.



Click on him to continue, then walk over to the 'hook' piece and interact with it to start a puzzle.

Move Crane By Amount

Look out below! Energy crystals and steambots are flying below Turing's Tower. Use the 'move crane' function to make the crane go down to grab the crystals and bring them back up to the tower. Program the crane to go down to different heights.



Press 1, 2, or 3 to lower the crane. Lower it to the same height as the incoming crystals, but avoid grabbing the steambots. Collect enough crystals to fill in the blue bar. If you miss a crystal, your health will go down, so be ready!

After the puzzle, head back into Turing's Tower. Click and drag the drill to the red wall to get rid of it. Go across to the teleporter and use it to get back to the tower.



Chapter 16: Enygma Slayer



In this chapter, you will program the security robot to turn on burners that will harm Enygma the dragon. Use what you've learned to defeat Enygma once and for all!

Talk to Turing to learn more coding concepts, then find clues to start tutorials. Enygma is in your path, so you will have to hurt it so it moves out of your way. In the end, use all the parts of the castle to defeat Enygma.

The answer key for this chapter's puzzle can be found here:

<https://www.tynker.com/dashboard/parent/answer-keys?key=H211&t=p&c=1&l=7>

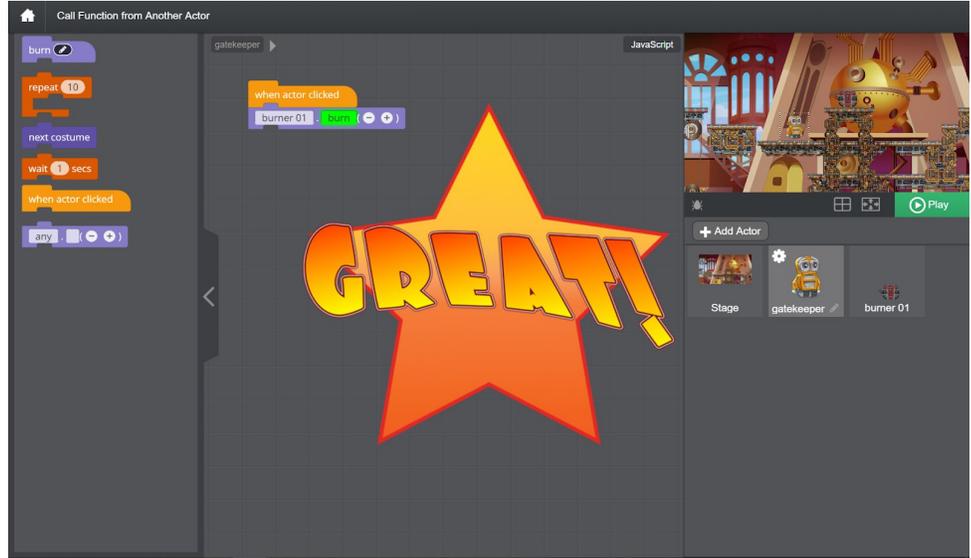
Call Function From Another Actor

From the teleporter, jump up to the red platform, then jump up again to talk to Turing. Once you've learned coding concepts from Turing, click on him to continue.



Go to the right and interact with the clue in front of the security robot.

The Enygma dragon is in the way. Program the robot to turn on the burner so the dragon moves. After you complete the tutorial, click Continue.



Click on the robot to activate the burner.

Next, run across to the other side and defeat any enemies in your way.

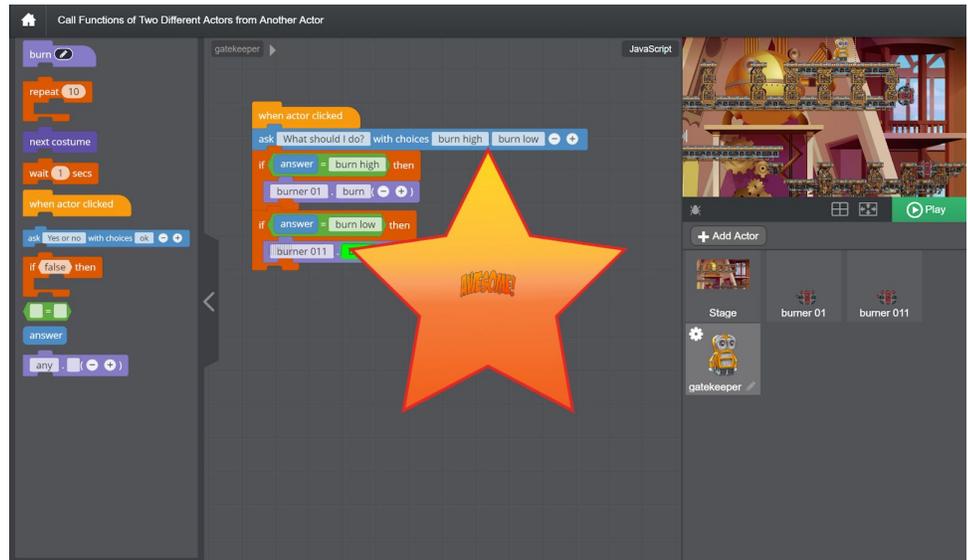




Go toward the robot and interact with the next clue to burn the dragon again.

Call Functions

The dragon came back!
 Program the robot helper to operate the two burners.
 Once you complete the tutorial with the correct code blocks, click Continue. Then, click on the robot to choose which burner to turn on. You need to burn the dragon 3 times to force it to move.



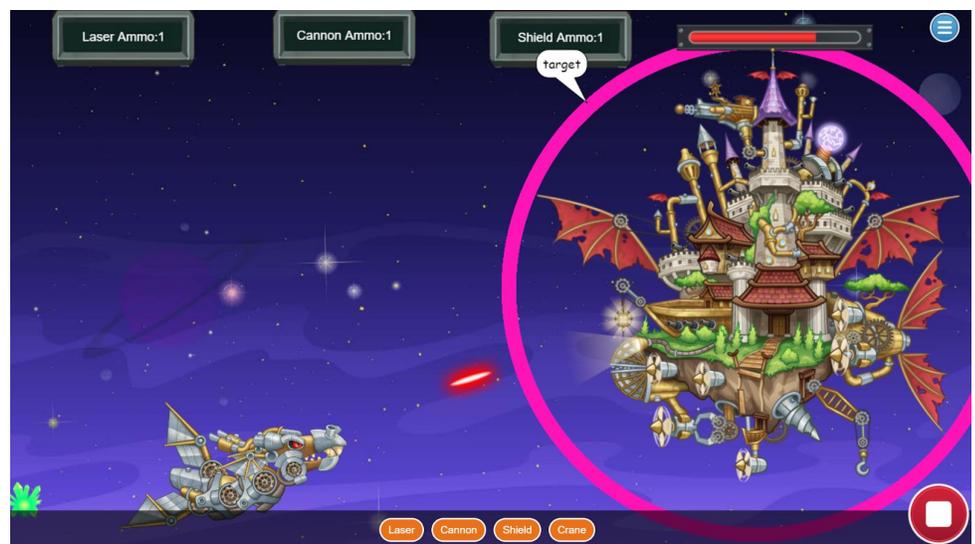
When Enygma the dragon leaves, jump down and run to the left. Go toward the purple crystal and interact with it to start the last puzzle!



Enygma Dragon

Enygma is back! Defeat it using the tower you prepared. Call functions in the tower's parts with the 'ask' block to defeat the dragon. Make sure you have the 4 command options to attack and protect yourself! The tower's parts have been programmed, so you only need to code the 'turing tower' Actor.

Use the tower parts at the correct time to damage Enygma and protect yourself. Use the **Laser** to blast Enygma when it's on the top side of the screen. Use the **Cannon** to shoot Enygma when it's on the bottom side of the screen. Use the tower's **Shield** to protect yourself from Enygma's lasers. Lastly, use the **Crane** to grab flying crystals to increase your health.



Be persistent in attacking and defending, and you will finally defeat Enygma the Dragon!