MINECRAFT: VOYAGE AQUATIC

Hour of Code Solution Guide

Use the following guide to help discover solutions to each Hour of Code puzzle. Remember there is usually more than one solution, so make sure to be creative! In some puzzles you will see turtles awaiting rescue. Collecting these sea turtles often requires a more complex solution, see if you're up to the challenge!

PUZZLE ONE

Help your students learn how to attach the blocks and hit the "Run" button. They'll pass when they reach a block next to the chest by cardinal direction. This includes the block below, to the left, or above the chest.

PUZZLE TWO

Now that you retrieved a boat from the chest, head out to the last spot on the dock to take the boat for a ride. Use the move forward blocks again but add a right turn to go out on the dock.

PUZZLE THREE

Use your boat to head across the ocean. You need to catch a cod and feed it to the dolphin in the puzzle 4. Use 7 move forward blocks to reach the blocks.

```
when run
    move forward
    move forward
    move forward
    move forward
    move forward
    move forward
    move forward
```

PUZZLE FOUR

Did you know if you feed cod to a salmon, it will lead you to a shipwreck? Also, using "repeat until goal" blocks is helpful, so you don't need to drag over the same block repeatedly. Use the loop provided to reach the dolphin with just a few blocks of code!

```
when run
    repeat until goal
        move forward
```

PUZZLE FIVE

In this puzzle, we've given you some starter "move forward" blocks. You'll need to add a "turn right" block to your code to get your player to the treasure chest.

```
when run
    repeat until goal
        turn  right ↻ ▾
        move forward
        move forward
```

PUZZLE SIX

Your player needs to navigate through the icebergs ahead to reach the underwater ruins. Catch a salmon along your way to solve this puzzle. Using combinations of loops, you can move and turn left and rate to get to the salmon. Try a more complex solution to save the sea turtle on your journey.

```
when run
repeat until goal
    repeat 3 times
    do  move forward

    turn  right ↻ ▼
    repeat 3 times
    do  move forward

    turn  left ↺ ▼
```

PUZZLE SEVEN

You have headed underwater to search the ruins for prismarine treasure. Also, this is the first puzzle using conditionals. To create an efficient solution, we must use "if path" blocks which allow the player to check for open paths to the left, right, or straight ahead. In this case, the player can check for paths to the right to navigate through the ruins and reach the chest. For a greater challenge, use another "if path" block to rescue the sea turtle along your way.

```
when run
repeat until goal
    move forward
    if path  to the right ▼
        turn  right ↻ ▼
```

PUZZLE EIGHT

Let's use some more conditionals to get through the volcanic island toward the tropical fish and the coral reef. Again, you can use conditionals here to solve the puzzle. Use the "if path" blocks which allow the player to check for open paths to the left, right, or straight ahead. For a greater challenge, use another "if path" block to rescue the sea turtle along your way.

PUZZLE NINE

Your player has reached the coral reef and headed back underwater! Not only can you use conditionals to check for open paths, you can also use them to complete certain moves only when standing on a certain block type. See the blue and red coral blocks? Try turning left and right only when standing on these blocks to make your way through the reef. The heart of the sea is waiting for you in the treasure chest.
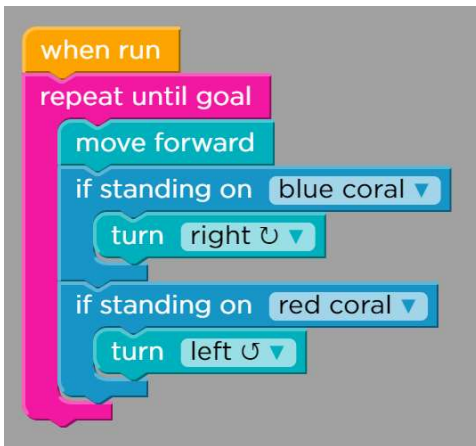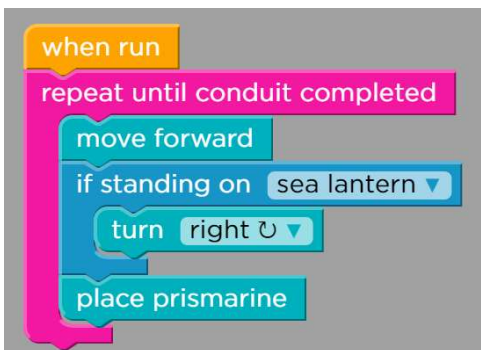
PUZZLE TEN

There is a squid hiding in this ocean monument. To catch the squid, you will need to use the "if standing on" conditional again to get around this puzzle. See the sea lanterns? Use them to create turns as needed to solve the puzzle.

PUZZLE ELEVEN

In this final puzzle, you will need to activate the conduit surrounded by black concrete. To do this, you'll need to place prismarine on each block surrounding the black concrete, the dark prismarine and the sea lanterns. Use the loop "repeat until conduit completed" and the conditional "if standing on" together to solve this puzzle and reach puzzle twelve, open play.

PUZZLE TWELVE

This is an open play level! Use the code you have learned throughout Minecraft: Voyage Aquatic and place blocks and spawn ocean mobs. This is a 20 by 20 level for even more space to build as you like.