

Activity Structure

Activity	Timing
Game	10 mins
Introduce Project & Story	10 mins
Make Hide and Seek Game	35 mins
Break	10 min
Game	5min
Introduction	5 min
Make Race Scenes	35 min
Test and Debug	Throughout
Share with parents and adults	10 mins

Overview

The children will use the story of "The Pufferfish and The Crab" (adaptation of the Tortoise and The Hare) as inspiration to re-tell their own version of the story. Using various speed blocks they will create a race over serval scenes and make a hide & seek game featuring the fish who has fallen asleep in the race. The aim of the game is to find the fish and wake him up so he can finish the race. Will the fish wake up in time to win the race or will the slow and steady Crab be victorious?

Learning Objectives

- To confidently use different 'Start On' blocks
- To use concurrency to make a movement and a sound happen at the same time.
- To use an object from the real world in their coding.
- To use "Go to" Page switch with support
- To confidently use speed blocks.

National Curriculum links

- **Spoken Language:** To maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments.
- **Computing:** children will use technology purposefully to create, organise, store, manipulate and retrieve digital content.





Game:

Beat the Teacher

- Put the flash cards for the blocks that you will use today in a pile. Play Beat the Teacher. If you can correctly tell me what a block is for you get a point but if you get it wrong, I get a point. Let's see who can get the most points. Run through each of the blocks to check children know what they are used for.
- You could target your questioning to make sure that younger/less experienced coders understand the bocks they will be using today.
- You could target your questioning to check the understanding of less confident coders.

Mr/ Mrs Silly

• The TA or tutor is going to act out the part of the 'character'. Ask the children to create a line of code for their 'character' to act out. Act out the code but make deliberate mistakes for the children to identify and correct. Children usually love correcting adults, especially if you exaggerate how silly you are. Did I get it wrong again? Silly me! Etc.

Introduction (discuss the project together, share ideas and create excitement)

- Read the story of 'The Pufferfish and The Crab'. Did you expect the crab to win? What do you think the moral of the story was? Keep trying even when things are hard. Do you think the Pufferfish will show off about being super-fast again? What did you like about the story?
- We are going to make our own stories today with a hide and seek game in the middle. Show the project.
- First, we will make the hide and seek game. Let's look more closely at scene 3.
- Why are the recorded instructions important? Re-cap how to record if needed
- How do you think we can make the seaweed/ coral disappear? Which start block is used?
- How do we make Freddy Fish snore? We need two separate lines of code because we want him to 'snore' and 'grow and shrink' at the same time. What would happen if the snoring and growing and shrinking was in the same line of code. Encourage the children to predict what would happen and then test this.
- How do we wake Freddy? Why is the 'Stop' block important when waking Freddy? (Without the stop block Freddy will keep snoring because we have used the repeat forever block)
- Which blocks are we using in this project? Invite the children to select the code blocks from the flash cards and then display these for reference.



Main Activity Key questions and teaching

- 1. Add 4 scenes to your project and select the underwater background for all for. Go to scene 3.
- 2. Scene 3 is where we are going to create the Hide and Seek game.
- **3.** Using the draw function, draw 4 separate characters of coral or seaweed for Freddy Fish to hide behind. Use the grow and shrink blocks resize and arrange the characters in the scene.
- **4.** Choose your craft fish/octopus character you used this morning. Hide the fish character behind a piece of coral.
- **5.** Code the coral/ seaweed characters. [Start on Tap, Pop, Hide]
- **6.** Record the instructions to start on Green Flag.
- 7. Code Freddy Fish/ Olive Octopus to grow and shrink to look like she is snoring. Encourage the children to tinker with the wait block and the grow and shrink blocks to look most effective. Record the storing sound. Which start block will you use? How can you make these two happen at the same time? We want this to be repeated until the character is woken, which repeat block will you use?
- 8. Waking up Freddy. What start block will you use? Why do you need the "Stop" block? Test it with and without. Will he say anything when he wakes up? How will he move to show he is awake? Switch Scene Go to Page 4
- 9. Test and Debug your game.

Teaching points

- Support children to record clear and precise instructions and encourage them to be aware of the audience.
- Encourage the children to test and debug throughout.

Possible Extensions

- When coral / seaweed is tapped and before it hides children can create an interesting movement or record "nothing here", or "well done! You found Olive Octopus".
- Send a message block to the fish from the coral he is hiding behind to start the fishes movement.
- Have more possible hiding places of coral, seaweed or castles.

To Simplify

- Have fewer coral/seaweed for the fish to hide behind.
- Support the children to draw the coral/ seaweed or choose castles.
- The fish doesn't snore

Finishing up

Swap your game with a friend to help test and debug.



Game:

Traffic Light Game

• Use the 'Wait', 'Stop' and 'Speed' cards. Ask the children to jog on the spot (slow pace). Explain that you're going to hold up different cards and they will need to carry out the corresponding action.

'Stop' – they stop

'Wait' – they stop and wait while you count to 5, then continue to jog.

'Speed' – adjust their jogging speed accordingly.

 Depending on space and how mature your children are, you could make it more fun by allowing them to walk/jog around the room or make it calmer by having the children sit down and clap in rhythm according to the cards, e.g. stop clapping, clap quickly/slowly, etc.

Introduction (discuss the project together, share ideas and create excitement)

- Re-cap the story of "The Pufferfish and The Crab" from this morning. Who won the race? Was it who we expected? Was the fastest the winner? Why did the fish come last?
- Show the children the project. Talk them through each scene.
- Scene 1 the fish is showing off to the crab asking for a race.
- Scene 2 They start the race and the fish moves off so fast he thinks he can have a little sleep and still win
- Scene 3 Is your hide and seek game
- Scene 4 the end of the race and the slow and steady crab wins.
- How do we switch scenes? Demonstrate this.
- Show the children the code for the slow and steady crab.
- Which blocks are we using in this project? Invite the children to select the code blocks from the flash cards and then display these for reference.



Main Activity Key questions and teaching

- Scene 1 Add the crab character and your crafted fish character.
- 2. The fish is going to swim about and show off about how fast he can swim. How can you code this? Do you want her to move and speak at the same time? How many lines of code will your fish have? What start block will you use?
- 3. The Crab needs to move very slowly across the screen. Tinker with the slow speed and wait blocks, in order for the crab to move slowly.
- 4. The crab will speak after the fish. How long will your wait block be?
- 5. When will you switch screen?
- 6. Scene 2 Can you use the repeat, wait and right blocks to move the crab across the screen slowly. When will you have the screen-switch? Why do you need to use the repeat block rather than the repeat forever?
- 7. The fish, Can you make the fish dart about the screen in an interesting and fast way.
- 8. Scene 3 is the Hide and Seek game made in the previous session.
- 9. Scene 4 Where does the crab need to be on the screen, in order to win the race but still travel slowly? Will the crab do a celebration when he wins?
- 10. The fish can move fast across the screen but make sure he doesn't beat crab, unless you want him to! What will Fish say when he loses the race?
- 11. Will there be other fish cheering crab on? What will they say? How will they move?
- 12. Test and Debug.

Teaching points

- Support children to record clearly and encourage them to be aware of the audience.
- Encourage the children to test and debug throughout.

Possible Extensions

- Can the children work independently?
- Use wait blocks to start the race with "Ready Steady Go"
- Have more fish to cheer crab on.

To Simplify

 Children may need to copy code to get the sequence of the project, but encourage them to create original movements for the fish.

Finishing up

• Swap your game with a friend to help test and debug.