



AUSTRALIAN STEM

VIDEO GAME CHALLENGE

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Pseudocode – Add two numbers together

Enter first number

Enter second number

Add first and second number

Display the result

Program (Python) – Add two numbers together

```
number1 = input("Enter the first number: ")
```

```
number2 = input("Enter the second number: ")
```

```
result = number1 + number2
```

```
print("The sum of {number1} and {number2} is {result}")
```

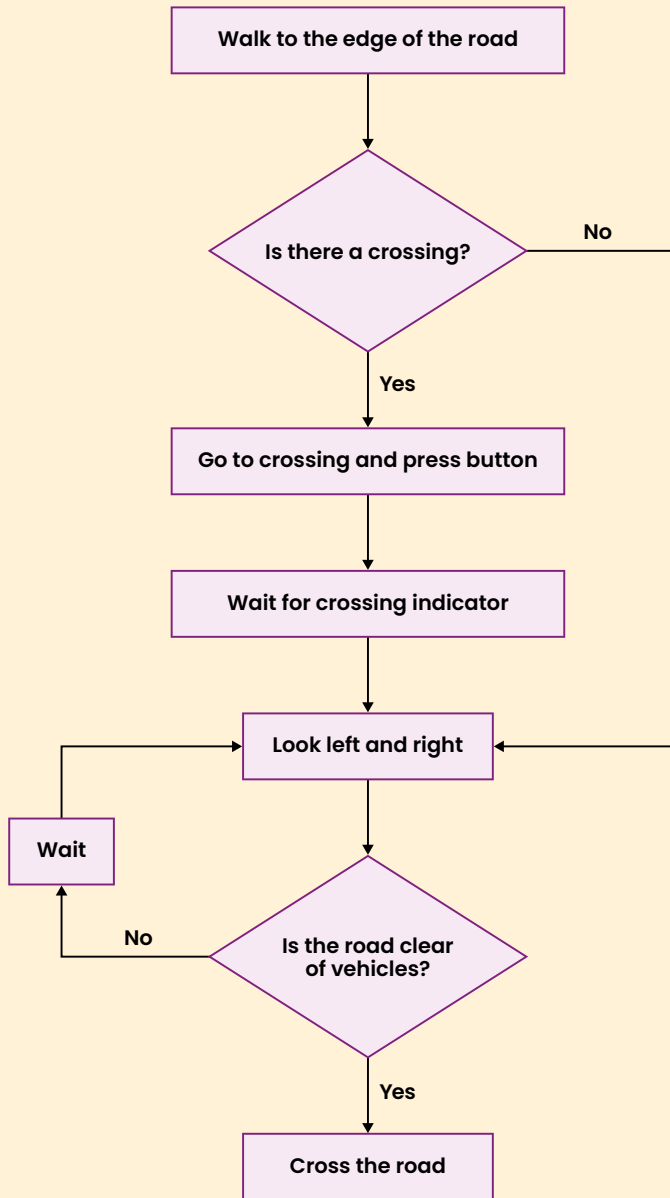


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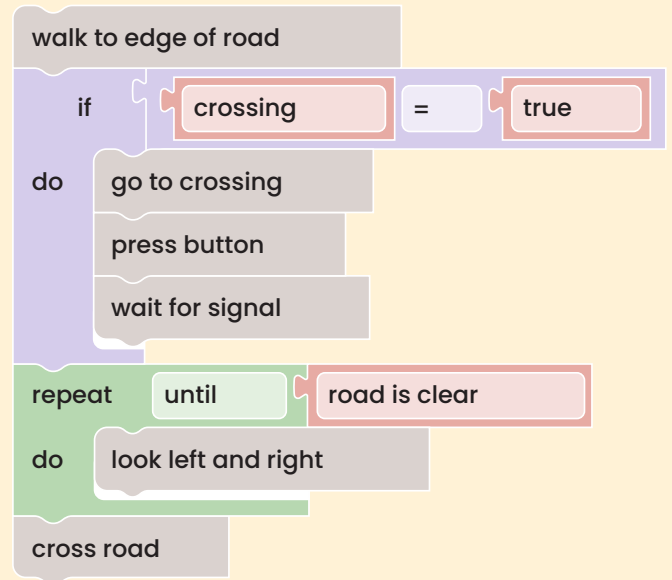
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Crossing the road flowchart



Crossing the road visual program





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Crossing the road using Python coding

```
import random
import time

def walk_to_edge_of_road
    print("Walking to the edge of the road.")
def is_there_a_crossing
    return random.choice([True, False])
def press_button
    print("Pressing the crossing button.")
def wait_for_crossing_indicator
    print("Waiting for the crossing indicator.")
time.sleep(2)
print("Crossing indicator is on.")
def look_left_and_right
    print("Looking left and right.")
def is_road_clear_of_vehicles
    return random.choice([True, False])
def cross_the_road
    print("Crossing the road safely.")
```

```
def road_crossing():
    walk_to_edge_of_road()
    if not is_there_a_crossing()
        print("No crossing available.")
        look_left_and_right()
        if is_road_clear_of_vehicles():
            cross_the_road()
        else
            print("Road is not clear, trying again.")
            road_crossing()
    else
        print("Crossing available.")
press_button()
    wait_for_crossing_indicator()
    look_left_and_right()
    if is_road_clear_of_vehicles():
        cross_the_road()
    else
        print("Road is not clear, trying again.")
        road_crossing()

road_crossing()
```



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Crossing the road using Python coding (with no print comments)

```
import random
import time

def walk_to_edge_of_road
def is_there_a_crossing
    return random.choice([True, False])
def press_button
def wait_for_crossing_indicator
time.sleep(2)
def look_left_and_right
def is_road_clear_of_vehicles
    return random.choice([True, False])
def cross_the_road
def road_crossing():
    walk_to_edge_of_road()
    if not is_there_a_crossing()
        look_left_and_right()
        if is_road_clear_of_vehicles():
            cross_the_road()
        else
            road_crossing()
    else
press_button()
    wait_for_crossing_indicator()
    look_left_and_right()
    if is_road_clear_of_vehicles():
        cross_the_road()
    else
        road_crossing()

road_crossing()
```

