

**BitWithBite**

PYGAME MASTERY WORKSHEET

**User Input**

Module 5 of 20 • Level ★☆☆ • Time: 30 min

SCORE

___ / 20

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Handle KEYDOWN/KEYUP events ✓ Use key.get_pressed() for smooth movement
- ✓ Detect mouse clicks and position ✓ Implement basic mouse dragging

QUICK RECAP

Pygame input splits into discrete events (KEYDOWN, MOUSEBUTTONDOWN) for one-shot actions, and continuous polling (pygame.key.get_pressed()) for smooth held-key movement — mixing these up is the most common input bug.

**Section A • Concept Check**

• BEGINNER

4 × 1 = 4

1 Which tool is correct for smooth continuous movement?

- ☐ A. pygame.KEYDOWN event
- ☐ B. pygame.key.get_pressed()
- ☐ C. pygame.QUIT event
- ☐ D. pygame.mouse.get_pos()

3 Which event type fires once per key press, not continuously?

- ☐ A. pygame.KEYDOWN
- ☐ B. pygame.key.get_pressed()
- ☐ C. pygame.MOUSEMOTION ☐ D. clock.tick()

2 What does event.button == 1 mean on MOUSEBUTTONDOWN?

- ☐ A. Right click ☐ B. Left click ☐ C. Middle click
- ☐ D. Scroll

4 What does pygame.mouse.get_pos() return?

- ☐ A. A single number ☐ B. An (x, y) tuple
- ☐ C. A boolean ☐ D. A Surface

**Section B • Problem Solving**

• INTERMEDIATE

2 + 3×3 = 11

5 To use jump only once per press, check for the _____ event, not held state.**6** Scroll wheel motion is read from the _____ event's .y attribute.**7** Write the two-line pattern to move a player left when the LEFT arrow key is held.

8 Describe the 3-step pattern for implementing mouse dragging of an object.

9 Why would using KEYDOWN instead of key.get_pressed() make movement feel jerky?



Section C · Challenge

• CHALLENGE

5

10 A player needs to move diagonally when holding both UP and RIGHT. Explain how `key.get_pressed()` naturally supports this where a single `KEYDOWN` check would not.

Reflection — the most useful thing I learned: _____

A ___/4

B ___/11

C ___/5

Total ___/20

Teacher's Signature

Parent's Signature

⌘ ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-B 2-B 3-A 4-B | 5 KEYDOWN 6 MOUSEWHEEL 7 = `keys = pygame.key.get_pressed()` then if `keys[pygame.K_LEFT]`: `player.x -= speed` 8 = set `dragging=True` on `MOUSEBUTTONDOWN` over the object, update its position on `MOUSEMOTION` while `dragging` is `True`, set `dragging=False` on `MOUSEBUTTONUP` 9 = `KEYDOWN` only fires once per press, so movement would happen in single sudden jumps rather than smoothly every frame while the key stays held | 10 = `key.get_pressed()` returns the held state of EVERY key each frame, so you can check both `K_UP` and `K_RIGHT` simultaneously and apply both movements in the same frame — a single `KEYDOWN` event only reports one key press at a time

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