```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport"
content="width=device-width, initial-
scale=1.0, maximum-scale=1.0, user-
scalable=no">
    <title>Model School: Knowledge Quest</
title>
    <style>
        body { margin: 0; overflow: hidden;
font-family: 'Segoe UI', Tahoma, Geneva,
Verdana, sans-serif; background: #000; }
        canvas { display: block; }

        /* UI Overlay */
        #ui-layer { position: absolute; top: 0;
left: 0; width: 100%; height: 100%; pointer-
events: none; display: flex; flex-direction:
column; justify-content: center; align-items:
```

```
center; }

        #question-box {
            pointer-events: auto; display: none;
background: rgba(255, 255, 255, 0.95);
            padding: 30px; border-radius: 15px;
text-align: center; width: 80%; max-width:
400px;
            box-shadow: 0 10px 30px
rgba(0,0,0,0.5); border: 4px solid #336699;
        }

        input { width: 80%; padding: 12px;
margin: 15px 0; border: 2px solid #ddd;
border-radius: 5px; font-size: 16px; }
        button { padding: 12px 25px;
background: #336699; color: white; border:
none; border-radius: 5px; cursor: pointer;
font-weight: bold; }

        #mobile-btn {
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            position: absolute; bottom: 40px;
pointer-events: auto;
            width: 100px; height: 100px;
background: rgba(255,255,255,0.2);
            border: 3px solid white; border-
radius: 50%; color: white; font-weight: bold;
            display: flex; justify-content: center;
align-items: center;
        }

        #stats { position: absolute; top: 20px;
left: 20px; color: white; background:
rgba(0,0,0,0.5); padding: 10px; border-
radius: 5px; }
    </style>
</head>
<body>

    <div id="stats">Level: <span id="lvl-
num">1</span> | Subject: <span id="subj-
text">Math</span></div>
```

```
    <div id="ui-layer">
        <div id="question-box">
            <h3 id="q-subject" style="color:
#336699; margin-top: 0;">Subject</h3>
            <p id="q-text" style="font-size:
1.1em; color: #333;">Question text here?</
p>
            <input type="text" id="ans-input"
placeholder="Type answer...">
            <br>
            <button
onclick="submitAnswer()">SUBMIT
ANSWER</button>
        </div>
        <div id="mobile-btn">WALK</div>
    </div>

    <script src="https://
cdnjs.cloudflare.com/ajax/libs/three.js/
r128/three.min.js"></script>
```

```
    <script>
        // --- DATA: 20 CAPS QUESTIONS ---
        const gameLevels = [
            { s: "Math", q: "Solve for x: 2x + 5 =
15", a: "5" },
            { s: "Math", q: "Calculate: -15 + (-5) *
2", a: "-25" },
            { s: "Math", q: "Value of 2x^2 - 4 if x =
3?", a: "14" },
            { s: "Math", q: "Angle between 180
and 360 degrees?", a: "reflex" },
            { s: "Math", q: "Simplify: 3a + 4b - a +
2b", a: "2a+6b" },
            { s: "Math", q: "Square root of 144?",
a: "12" },
            { s: "Math", q: "Sum of interior
angles of a triangle?", a: "180" },
            { s: "Geography", q: "Line dividing
North and South hemispheres?", a:
"equator" },
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        { s: "Geography", q: "Rock formed from cooling magma?", a: "igneous" },
        { s: "Geography", q: "Name the ancient supercontinent.", a: "pangea" },
        { s: "Geography", q: "Height above sea level term?", a: "altitude" },
        { s: "Geography", q: "Which is larger scale: 1:50k or 1:10k?", a: "1:10000" },
        { s: "Geography", q: "Process of rocks breaking down?", a: "weathering" },
        { s: "Geography", q: "Smallest SA province by land area?", a: "gauteng" },
        { s: "Life Orientation", q: "Bill of Rights: Section for food/water?", a: "27" },
        { s: "Life Orientation", q: "Overgeneralized belief about a group?", a: "stereotype" },
        { s: "Life Orientation", q: "Career category for plants/animals?", a: "outdoor" },
        { s: "Life Orientation", q: "True or
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False: Values are important beliefs.", a: "true" },
            { s: "Life Orientation", q: "Ability to share others' feelings?", a: "empathy" },
            { s: "Life Orientation", q: "Legal minimum working age in SA?", a: "15" }
        ];

        // --- 3D ENGINE SETUP ---
        const scene = new THREE.Scene();
        scene.background = new THREE.Color(0x111111);
        const camera = new THREE.PerspectiveCamera(75, window.innerWidth/window.innerHeight, 0.1, 1000);
        const renderer = new THREE.WebGLRenderer({ antialias: true });
        renderer.setSize(window.innerWidth, window.innerHeight);
```

```
document.body.appendChild(renderer.dom
Element);

        // Lights
        const light = new
THREE.HemisphereLight(0xffffff,
0x444444, 1.2);
        scene.add(light);

        // School Hallway Floor
        const floorGeo = new
THREE.PlaneGeometry(15, 1000);
        const floorMat = new
THREE.MeshStandardMaterial({ color:
0x444444 });
        const floor = new
THREE.Mesh(floorGeo, floorMat);
        floor.rotation.x = -Math.PI / 2;
        scene.add(floor);

        // Building the Gates
```

```
        const gates = [];
        gameLevels.forEach((lvl, i) => {
            const gateGeo = new
THREE.BoxGeometry(15, 8, 0.5);
            const gateMat = new
THREE.MeshStandardMaterial({
                color: i < 7 ? 0x00ff00 : (i < 14 ?
0x0088ff : 0xffaa00),
                transparent: true, opacity: 0.4
            });
            const gate = new
THREE.Mesh(gateGeo, gateMat);
            gate.position.set(0, 4, -(i + 1) * 30);
            scene.add(gate);
            gates.push(gate);
        });

        // --- CONTROLS & STATE ---
        let currentLvl = 0;
        let isWalking = false;
        let isLocked = false;
```

```
        camera.position.set(0, 1.6, 0);

        // Mobile Events
        const btn =
document.getElementById('mobile-btn');
        btn.addEventListener('touchstart', ()
=> isWalking = true);
        btn.addEventListener('touchend', () =>
isWalking = false);
        // Keyboard Events
        window.addEventListener('keydown',
(e) => { if(e.key === 'w') isWalking = true; });
        window.addEventListener('keyup', (e)
=> { if(e.key === 'w') isWalking = false; });

        function animate() {
            requestAnimationFrame(animate);

            if (isWalking && !isLocked) {
                camera.position.z -= 0.15;
```

```
            // Check for gate collision
            let nextGatePos = -(currentLvl + 1)
* 30;
            if (camera.position.z <=
nextGatePos + 2) {
                triggerQuestion();
            }
        }
        renderer.render(scene, camera);
    }

    function triggerQuestion() {
        isLocked = true;
        isWalking = false;
        const data = gameLevels[currentLvl];
        document.getElementById('q-
subject').innerText = data.s;
        document.getElementById('q-
text').innerText = data.q;

document.getElementById('question-
```

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box').style.display = 'block';
        }

        window.submitAnswer = function() {
            const userAns =
document.getElementById('ans-
input').value.toLowerCase().trim();
            const correctAns =
gameLevels[currentLvl].a.toLowerCase();

            if (userAns.includes(correctAns)) {
                alert("Correct! Transitioning to
next level.");

document.getElementById('question-
box').style.display = 'none';
                document.getElementById('ans-
input').value = "";

                // Remove the gate we just passed
                scene.remove(gates[currentLvl]);
```

```
            currentLvl++;
            if (currentLvl >= 20) {
                alert("CONGRATULATIONS! You
have graduated the Model School!");
                location.reload();
            }

            document.getElementById('lvl-
num').innerText = currentLvl + 1;
            document.getElementById('subj-
text').innerText = gameLevels[currentLvl].s;
            isLocked = false;
        } else {
            alert("Incorrect. Review your
CAPS notes and try again!");
        }
    }

    animate();
</script>
```

</body>
</html>