Futuristic Car Design Worksheet: Labeled Sketch Panels for Creative Thinking

Original tasks 1, 2, 3 / complete keys

Task 1

A sketch shows a car body 5 units long and a wheel diameter of 1 unit. The learner marked the unit in the Wheels panel. Is the body length within the three-to-six unit range? Show the arithmetic.

Answer: Yes. The body length is 5 units, and $3 \leq 5 \leq 6$, so it is within the range.

Reason: Compare the measured body length to the stated range using the same unit. Five is greater than three and less than six.

Check: Recount the units along the body and confirm the unit mark matches the wheel diameter.

Task 2

A learner writes the label 'sensor' inside the sketch box, covering part of the roof. The label line points to the roof. State one fix that follows the label convention.

Answer: Move the word 'sensor' outside the sketch box and draw a straight line from the word to the roof part.

Reason: The convention requires label words outside the box so the drawing stays visible, with a line to the named part.

Check: Confirm the word is outside the box and the line touches the roof part.

Task 3

A Features panel sketch shows a folding wing, but the purpose sentence says 'This wheel grips the road.' Identify the mismatch and write a corrected purpose sentence.

Answer: The sentence describes a wheel, not a wing. A corrected sentence is: 'This folding wing helps the car glide over traffic.'

Reason: The purpose sentence must match the sketched part. The wing is the feature, so the sentence should describe the wing's purpose.

Check: Point to the sketched part and read the sentence aloud; revise until they match.

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Original tasks 4 / complete keys

Task 4

A learner invents a top speed of 60 units per hour and a wheel diameter of 2 units. They mark the wheel unit but write the speed without a unit label. State one fix and one check.

Answer: Fix: label the speed as a hypothetical example and state the unit clearly, such as '60 units per hour (hypothetical example).' Check: confirm the wheel unit mark is visible and that all numbers on the page use consistent units.

Reason: Invented numbers are allowed only when labeled as hypothetical examples, and units must stay consistent across the worksheet.

Check: Scan the page for numbers, confirm each has a unit, and confirm the hypothetical label appears where a number is invented.

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Source rubric / reflection

- [ ] Body panel has a sketch and at least two readable labels with lines to named parts.
- [ ] Wheels panel shows a movement system, a marked unit, and at least one label explaining how it works.
- [ ] Features panel shows one special feature with a label and a purpose sentence.
- [ ] Body length is between three and six marked units, or an alternative convention is clearly explained.
- [ ] Labels sit outside sketch boxes and do not cover the drawing.
- [ ] Purpose sentences match the sketches and use simple, readable language.
- [ ] Any invented numbers are labeled as hypothetical examples and units are consistent.

Reflection: What did you check, what did you change, and what will you try next?