

Name: \_\_\_\_\_

Grade: 4

Subject: Resource & Technology

Topic: Keep the Wheels Turning: Exploring Engineering and Mechanisms in Toy Cars

### Understanding Toy Cars: More Than Just Fun!

Toy cars are not just for play; they are amazing examples of engineering! When you look at a toy car, you might see different shapes like squares, circles, and triangles. Each shape helps the car move in a special way. A common shape found on a toy car is the wheel, which is round to help the car move easily and maintain balance. The materials, like plastic or metal, also make a difference. For example, a plastic car might be lighter and go faster, while a metal car could be stronger.

Air in the tires helps a toy car to move by reducing friction and allowing the wheels to roll smoothly over surfaces. Real cars use solids, liquids, and gases to work properly. The solid parts of a car include the frame and wheels, which give it strength. The liquids, like oil and gasoline, help the engine run smoothly. Finally, gases, such as air, are essential for the tires to roll and for the fuel to burn in the engine. By learning about how toy cars work, we can understand more about real cars and the people who create them. One of the careers in the automotive industry could be an automotive engineer. Skills needed for

this job include problem-solving, creativity, and a strong understanding of physics and math.

Fill in the blank with the correct words from the Word Bank below.

Word bank: **gas, body, plastic, shape, air, plastic**

1. The \_\_\_\_\_ of a car is important for maintaining stability.
2. Cars need \_\_\_\_\_ in their tires to help them move smoothly.
3. The \_\_\_\_\_ is the main part of the car where the engine is located.
4. Engineers use \_\_\_\_\_ to create the car's smooth outer surface.
5. \_\_\_\_\_ are often used to make parts of the toy car because they are lightweight.
6. \_\_\_\_\_ fuels a car's engine and allows it to produce energy for movement.

**Multiple Choice Questions:** Choose the correct answer from the choices for each question.

1. What is the main reason toy cars have round wheels?
  - A) To make them look cool
  - B) To help them move smoothly
  - C) To use less material

**2. Which material is commonly used for making toy car bodies?**

- A) Steel
- B) Wood
- C) Plastic

**3. What shape is important for the aerodynamics of a car?**

- A) Square
- B) Triangle
- C) Curved

**4. Who designs the look and shape of cars?**

- A) Mechanics
- B) Automotive designers
- C) Car salespeople

**5. What role do liquids play in car operation?**

- A) They fill the seats
- B) They are used as fuel
- C) They are used in the paint

**Choose the correct sentence to answer each question.**

- A career in the automotive industry could be an automotive engineer. Skills needed for this job include problem-solving, creativity, and a strong
- Air in the tires helps a toy car to move by reducing friction and allowing the wheels to roll smoothly over surfaces.
- A common shape found on a toy car is the wheel, which is round to help the car move easily and maintain balance.

1. Explain how air in the tires helps a toy car to move.

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2. Describe one shape you find on a toy car and its purpose.

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3. Name a career in the automotive industry and describe what skills might be needed for this job.

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