ACROSS

4 All suspensions use springs that share a common characteristic described by ______ Law.

5 The area separating the engine compartment from the passenger compartment is called the ________.

6 Hard rubber or plastic cushions or __________ are usually mounted between the coil spring and the spring seat.

9 A _________ is a suspension link that connects a knuckle or wheel flange to the frame.

11 Depending on the suspension design, springs are installed a certain distance from the wheel, which determines the ratio of wheel travel to spring travel, or ________.

13 Coil springs are usually installed in a ______ pocket.

14 A steering ________ is hard to classify either as part of the suspension or as part of the wheel.

16 Since the early 1980s, fiberglass-reinforced epoxy plastic _________ leaf spring have been used on production vehicles.

19 The leaves are held together by a ________.

21 _______ weight is the term used to identify the weight of the car or truck that does not move up and down and is supported or sprung by the suspension.

22 ______ construction is a design that combines the body with the structure of the frame.

23 A basic _________ consists of a rubber air chamber, generally closed at the bottom by a piston fitted into a control arm, or by a strut shock absorber.

24 A _________ frame is a common name for a type of perimeter frame where the transverse connecting members are straight across.

DOW N

1 _________ are constructed of one or more strips of long, narrow spring steel.

2 A _______ frame is a partial frame often used on unit-body vehicles to support the power train and suspension components.

3 ______ frame construction consists of formed sheet steel used to construct a framework for the entire vehicle.

7 The leaf spring is attached to the frame with movable mounting hangers called ________.

8 _________ are actually ball-and-socket joints, similar to the joints in a person’s shoulder.

10 _______ clips help prevent the leaves from separating whenever the leaf spring is rebounding from hitting a bump or rise in the roadway.

12 _________ refers to the force that causes the front of the vehicle to drop down while braking.

15 A _______ frame consists of welded or riveted frame members around the entire perimeter of the body.

16 _________ are made of special round spring steel wrapped in a helix shape.

17 A _________ is a spring that is a long, round, hardened steel bar similar to a coil spring except that it is a straight bar.

18 _________ refers to the reaction of the body of a vehicle during acceleration.

20 The only knuckle that uses a _________ is a steering knuckle on an I-beam or twin I-beam front suspension.