

The Science of the Olympics

GOLD MEDAL DICTIONARY

Fall Line: _____

Friction: _____

Drag: _____

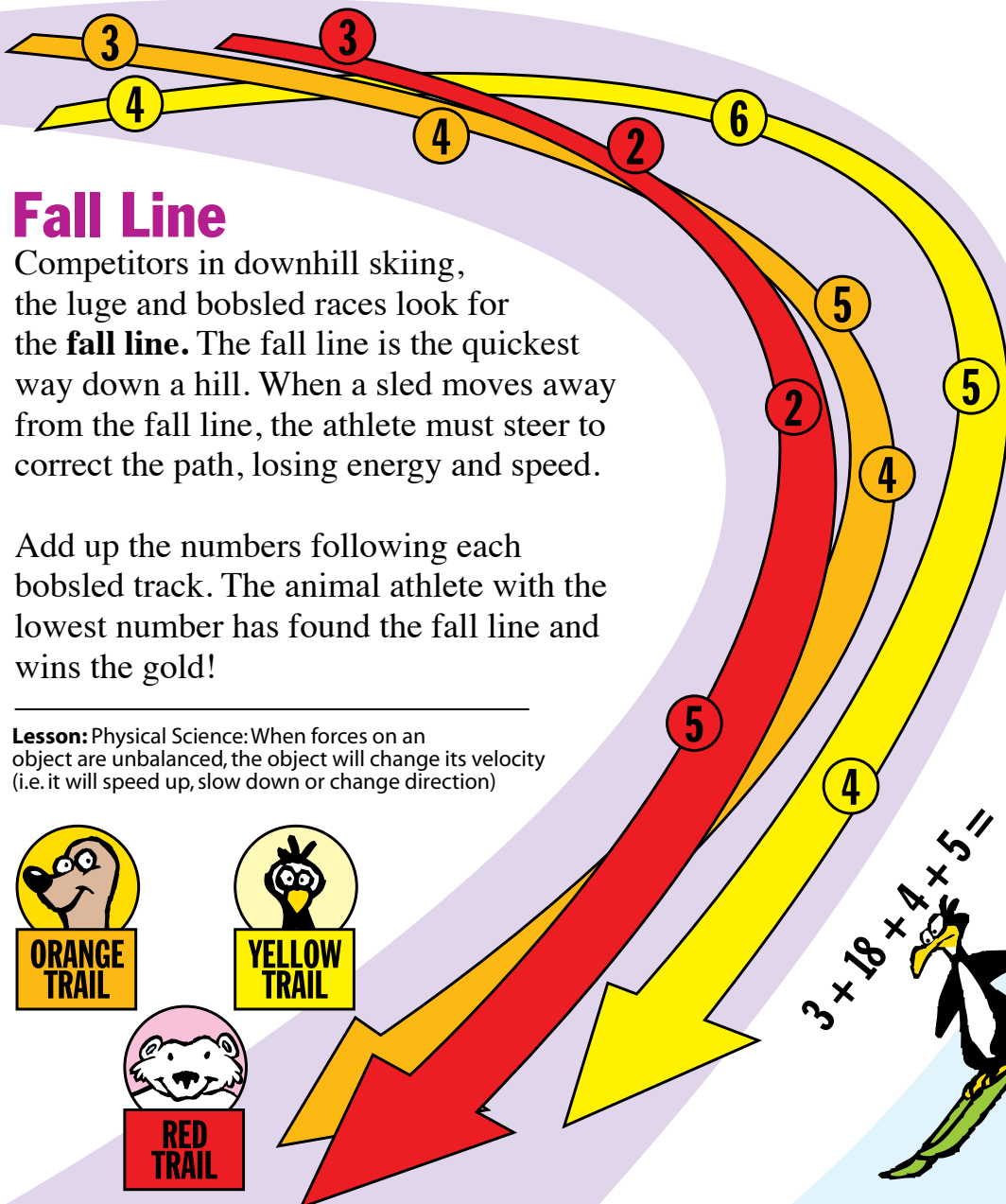
The people who compete in the Winter Olympics are more than great athletes. They are also masters of science. Gold Medal athletes know about the science of a **fall line**, **drag** and **friction**.

Find the definition of each of these words on these pages. Write the definition in the Gold Medal Dictionary.

Lesson: Vocabulary Development: use context clues to find the meaning of words.

Cutting Down on Drag

While we don't always feel air, we are always moving against it. The faster we move, the more we can feel the air rushing past us. Air is actually slowing down our motion. This is called **drag**.

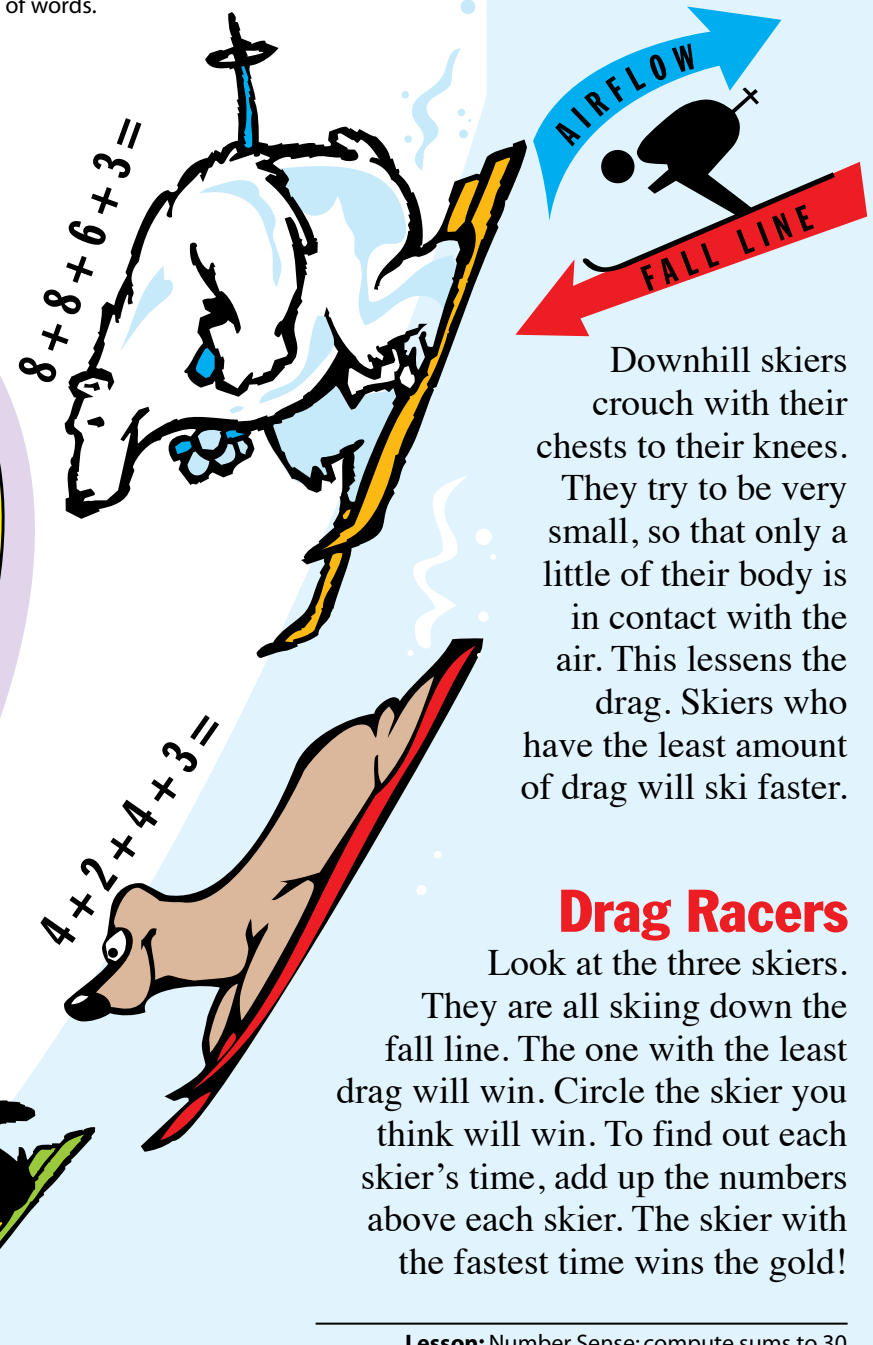


Fall Line

Competitors in downhill skiing, the luge and bobsled races look for the **fall line**. The fall line is the quickest way down a hill. When a sled moves away from the fall line, the athlete must steer to correct the path, losing energy and speed.

Add up the numbers following each bobsled track. The animal athlete with the lowest number has found the fall line and wins the gold!

Lesson: Physical Science: When forces on an object are unbalanced, the object will change its velocity (i.e. it will speed up, slow down or change direction)



Downhill skiers crouch with their chests to their knees. They try to be very small, so that only a little of their body is in contact with the air. This lessens the drag. Skiers who have the least amount of drag will ski faster.

Drag Racers

Look at the three skiers. They are all skiing down the fall line. The one with the least drag will win. Circle the skier you think will win. To find out each skier's time, add up the numbers above each skier. The skier with the fastest time wins the gold!

Lesson: Number Sense: compute sums to 30