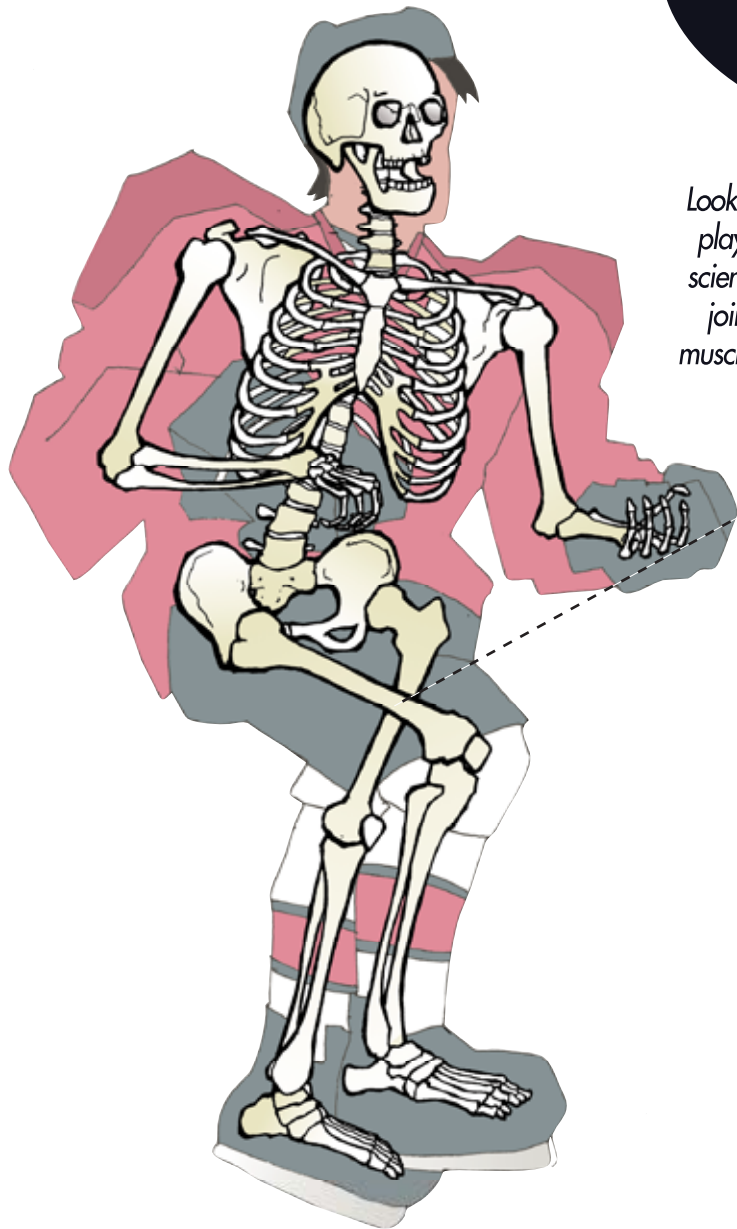


SKATE ANATOMY



Joints and Bones

Look at the diagrams of the hockey players in this exhibit. Match the scientific names of the muscles and joints to the correct parts on the muscle and skeletal diagrams on the left and right.

- Femur
- Gastrocnemius
- Quadriceps
- Gluteus Maximus
- Pelvis
- Abdominis Rectus
- Tibia
- Tarsus
- Hamstrings
- Patella



Muscles

the science of
HOCKEY
nexen

DYNAMIC STANCE

Try out the Dynamic Stance Test by putting your feet into the black foot rests with your hands on the floor in front of you supporting your weight. Now move your hands to your thighs and slowly try to stand up.

How much can you straighten your stance before you feel like you are going to fall over?



Notice that the Hockey Dude is leaning at a 45° angle.

With the help of a friend, lean forward and draw your angle on the picture of the Hockey Dude.

HOCKEY TRIG 101

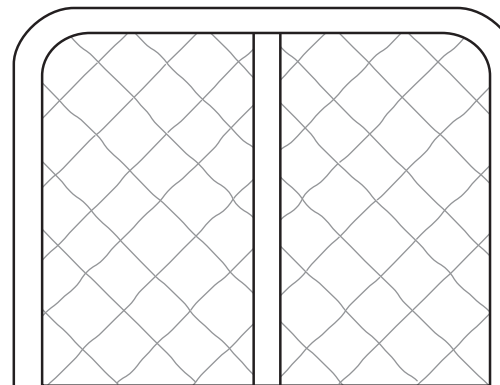
Geometry plays a role in many types of sports, especially when we are trying to hit a target. Move the goalie to any spot in front of the net and take turns looking through the player's "eyes" and the puck's "eyes". Notice the difference in the views.

On the diagrams to the right, colour in the areas of the net that the shooter sees. Then colour in the areas of the net that the puck "sees".

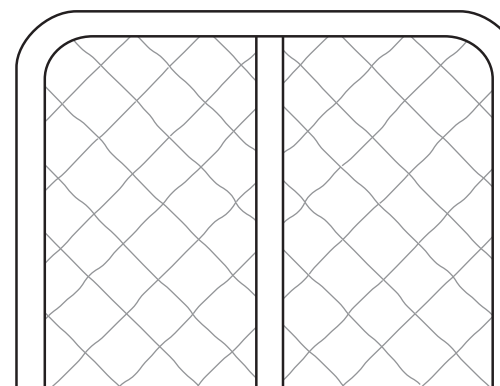
Which view should a shooter use when aiming at the net?

- True The puck's view has a better chance of hitting the net. A shooter hits the goal more often if they understand how the puck "sees" the net. This is where the best opening will be.
- False
- True The shooter's view is more likely to end up in the net. If you aim at the opening that appears best in the eyes of the player, you will be more likely to score.
- False

Hint: The shooter's view is sometimes called the shooter's illusion. What does the word illusion mean? The Oxford dictionary defines illusion as, "something that a person wrongly supposes to exist."



Shooter's View



Puck's View

BALANCE TEST

Try the Balance Test. The average for males is 3.2 seconds and 2.4 seconds for females.

Record your best three tries.

	1	2	3
Seconds			

HOCKEY TRIG 201

More sports math? Play a game of air hockey with a friend. The winner of the game has probably discovered the skill of using angles to bounce the puck off of the edge into their opponent's net.

If you fire a shot into the boards at a 45 degree angle, what angle does it bounce off at? Circle the correct answer.

- A. 90 degrees (this angle is shaped like the letter "L" and is called a right angle)
- B. 45 degrees (this angle is shaped like the letter "V").
- C. 180 degrees (this angle is shaped like a straight line "—").