Kinesiology: Core Concepts
Task Sheet for Learning about Spin & Rebound

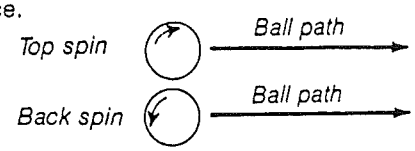
Definitions:

Spin and Rebound

Spin is the result of force being applied away from an object's center of gravity. The object spins in the direction of least resistance.

Rebound: A ball will rebound at an angle equal to that at which it strikes a surface unless the rebound is altered by the elasticity of the ball, the firmness of the surface, or ball spin.

A spinning object will rebound from a horizontal surface in the direction it is spinning, and in the opposite direction from a vertical surface.



Learning activities:

1. Perform the following three passes:
   a. two-handed chest pass (with a basketball)
   b. overhand (baseball) pass (with a basketball)
   c. underhand pass (with a basketball)
   d. overhand football pass (with a football)

   Observe the direction of the spin on the ball and the last "body part" to touch the ball.

Question: Which way did the ball spin in each pass? Why?

a. _____

b. _____

c. _____

d. _____

Question: What was the last "body part" to touch the ball in b, c, and d above?

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2. Shoot the basketball using a one-hand set shot. Notice the spin on the ball and the last "body part" to touch the ball.

Question: Which way did the ball spin? Why?

_____

Question: What was the last "body part" to touch the ball?

_____

Question: Why is it important that the fingers touch the ball last?

_____

3. Stand 10 feet from the wall. Aim at a spot 3 feet from the wall. Execute two bounce passes as follows:
   a. with top spin
   b. with back spin

   Notice the height of rebound on each pass.

Question: Which pass rebounded the highest?

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Question: Which pass rebounded the lowest?

_____

Question: What is the effect of spin on the height of the rebound?

Question: In making a two-handed bounce pass to a teammate, which type of spin will be most effective?

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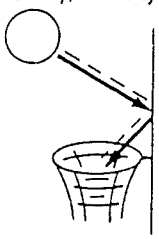
4. Stand 8-10 feet from the wall and aim for a spot 10 feet high on the wall. Throw the ball in the following ways:
   a. two-hand, underhand throw (with top spin)
   b. one-hand set shot (with back spin)
   Notice the angle of rebound from the wall.

Question: When shooting a basketball (as in the diagram below), what type of ball spin is needed to make the ball go into the basket rather than over the front of the rim?



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5. Hold the ball as high as possible and let it drop:
   a. to the floor
   b. to the artificial turf
   c. to the carpet pad.
   Observe the difference in the bounces.

Question: What difference did you observe? Why?
