Perceptual Development & Tractors

Perceptual Development in Children

- Children's perceptual processes are not as developed as adults.
- The ability to perceive things the way an adult does involves both maturation and learning; it usually develops slowly over time.
- Maturation in perception does not depend entirely on chronological age, nor is it entirely a function of intelligence.
- The ability to perceive things correctly is essential to the safe operation of a tractor.



Differences in Perceptual Ability between Children and Adults

Physical Ability

- Children are less accurate in estimating their ability to reach items like foot and hand controls on tractors.
- If children cannot easily and quickly reach tractor controls, they may collide with objects or run over people in their path.

Visual Cues

- Children are less skilled at scanning the environment to look for unusual, different or important features.
- The failure to notice obstacles, people or risky situations can result in collisions, run-overs and rollovers.

Sound Cues

- Children are not as good as adults at using hearing to decide when an approaching vehicle may arrive.
- The misinterpretation of the arrival of an approaching vehicle can result in a collision.

Distances

- Children are less accurate judging the distance from themselves to objects in their environment.
- Rollovers can result if a child misjudges the distance between the tire of the tractor and a ditch.

Movement & Speeds

- Children are less accurate judging the speeds of moving objects, as well as judging acceleration or deceleration of moving objects.
- As a result, youth may encounter other moving vehicles or objects sooner than expected, resulting in a collision.

Slopes & Terrains

- Children may struggle to accurately judge the angle of inclines and declines.
- Operating a tractor on steep inclines can cause rollovers.

See Operating a Tractor to determine if a youth is capable of safely operating a tractor.

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