

Core Skills Analysis

Science

- Understood basic concepts of gravity and force through the real-world application of dropping an egg.
- Explored material properties and their protective qualities by selecting or designing cushioning to prevent egg breakage.
- Demonstrated cause-and-effect relationships by predicting and observing how different designs impact the egg's safety.
- Developed early problem-solving skills by iterating on the design to improve chances of a successful drop.

Tips

To deepen understanding of scientific principles, encourage experimenting with a variety of materials (e.g., cotton, bubble wrap, fabric) to observe how each absorbs impact differently. Set up a series of drops from increasing heights to explore how force changes with distance, helping develop spatial awareness and measurement vocabulary. Incorporate simple discussions about gravity and protection using age-appropriate terms and encourage the child to describe what they see happening to the egg. Including collaborative challenges where the child works with a peer or adult to brainstorm and build protective designs can also nurture communication and creativity.

Book Recommendations

- [Gravity](#) by Jason Chin: A beautifully illustrated introduction to gravity and how it affects everything around us.
- [The Egg Drop](#) by Mini Grey: A fun story that follows a creative way of dropping an egg safely, sparking interest in protection and physics.
- [What Is the World Made Of? All About Solids, Liquids, and Gases](#) by Kathleen Weidner Zoehfeld: Introduces young learners to different materials and their properties, complementing lessons on cushioning and protection.

Learning Standards

- NGSS PE: K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or directions of pushes and pulls on the motion of an object.
- CCSS.ELA-LITERACY.SL.K.1: Participate in collaborative conversations with diverse partners about kindergarten topics and texts.
- CCSS.MATH.CONTENT.K.MD.A.2: Directly compare two objects with a measurable attribute in common, to see which object has more, less, or the same amount.

Try This Next

- Create a drawing activity where the child sketches their egg protection designs and colors materials used.
- Simple experiment worksheet to record which materials protected the egg best with photos or stickers as evidence.

Growth Beyond Academics

This activity likely supports persistence as the child tests and improves their design after observing the results. It also encourages curiosity about cause and effect while fostering confidence through hands-on problem solving and accomplishment when the egg remains unbroken.