

Core Skills Analysis

Mathematics

- Harleigh demonstrated an understanding of basic geometric shapes by identifying and using squares, triangles, and rectangles to create stable structures.
- She explored spatial reasoning as she manipulated the magna tiles to fit together, demonstrating an understanding of how shapes fit together to form larger structures.
- Harleigh engaged in simple addition and subtraction concepts by counting the number of tiles used in her creations and determining how many more she needed for her designs.
- She began to grasp symmetry and balance while constructing her structures, noticing how to create even sides and stable bases.

Science

- Through her building activities, Harleigh explored principles of physics, especially gravity, by observing how tall structures could topple if not properly balanced.
- She engaged in hands-on experimentation with stability, discovering which shapes provided stronger support for her creations.
- Harleigh started to understand basic engineering concepts, testing various designs to see which could withstand pressure or create a larger space.
- Her use of colors and transparency in tiles led to discussions about light and color, providing opportunities to explore these scientific concepts in a practical way.

Creative Arts

- While building with magna tiles, Harleigh expressed her creativity by designing unique structures, such as houses or castles, showcasing her artistic vision.
- She also exercised her fine motor skills as she carefully connected and arranged the tiles, enhancing her dexterity and hand-eye coordination.
- During the activity, Harleigh experimented with color combinations and patterns, allowing her to practice visual design principles.
- The creative aspect of the building process encouraged her to tell stories about the structures she built, merging imaginative play with her artistic creations.

Tips

To further enhance Harleigh's learning experience, consider encouraging her to expand her building challenges by introducing more complex structures that involve problem-solving, such as bridges or towers with specific height requirements. Engaging her in discussions about why some structures stand while others fall could lead to a deeper understanding of stability in both engineering and science. Additionally, incorporating themed construction activities, such as building a particular animal or vehicle, could spark her imagination and promote storytelling in conjunction with the physical building process.

Book Recommendations

- [The Three Little Pigs](#) by James Halliwell-Phillips: A classic tale about three pigs who build houses, encouraging children to think about construction and materials.
- [Iggy Peck, Architect](#) by Andrea Beaty: A story that inspires creativity and passion for building, showcasing a young boy's desire to construct amazing structures.
- [Let's Build a House](#) by Gretchen Schields: An engaging book about the steps involved in building a house, ideal for introducing construction concepts to young children.