Early Elementary

Daily Opportunities to Support Spatial Thinking

This handout offers ideas on how to support children's spatial thinking within a variety of contexts and settings.

Transitions

Support children's mental rotation skills by asking them to notice different ways to fit materials into their cubby or pencil box. Challenge them to think about how they might position items before physically testing their ideas.

Use spatial vocabulary paired with gestures to give directions that involve position, direction, or distance. Consider introducing spatial thinking vocabulary in both English and the home language. For example:

> "The counting chips are **on** the bookshelf in the **back** of the classroom, **behind** the yellow folders."

Physical Education and Recess

Offer children opportunities to use thinking skills through sports, games, relay races, dances, and obstacle courses. These activities might require children to move over, under, in front of, behind, or through objects.

Encourage children to use spatial vocabulary to explain the direction a ball might move when kicking or throwing it. For example:

> "Which direction do you need to kick the ball to make a goal?"

Social Studies

Encourage children to use spatial vocabulary to explain the location of one place in relation to another. For example:

> "Where is our neighborhood located in relation to the Pacific Ocean?"

Offer hands-on, meaningful experiences for children to use spatial thinking. Invite children to create classroom maps using cardinal directions (north, south, east, and west). Then, their classmates might use those maps and directions to find objects hidden in the classroom.

Reading, Writing, and the Arts

Model how to read different types of text by using spatial vocabulary paired with gestures. For example, you might move your finger over the text and use words such as “top,” “bottom,” “left,” and “right” to describe the direction you are reading.

Use concrete objects to help children identify appropriate spacing between words when writing. For example, they might use the width of their pinky finger.

Encourage children to use spatial vocabulary when describing their artwork. For example:

> “Tell me about where you placed the different colors in your painting.”

Science, Technology, and Engineering

Encourage children to think about the spatial orientation of different parts of an object, living thing, or system. The positions of these parts may be related to their structure or function. For example:

> The position and direction of a force (for example, a push or a pull) will affect the direction an object might move.

Support children to use spatial vocabulary during coding activities. Children might consider the position of different commands and how positions will affect the outcome of their code. For example, placing the “jump” code before the “dance” code will result in the animated character jumping and then dancing.

Help children use spatial thinking when designing solutions to various problems. For example, when children are building a bridge, encourage them to think about the position of the bridge’s legs and how it might affect the stability of their structure.