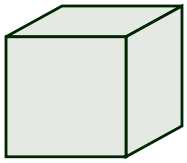
Investigate rolling, stacking and sliding

Name	Date

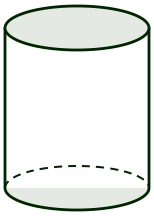
Work together

1 Try to roll, stack and slide each solid. What do you notice?

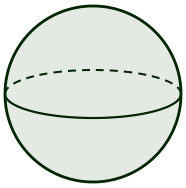
1



2



3



Use the real block, can and ball your teacher gives you.

Investigate rolling, stacking and sliding

Work together

1 Try to roll, stack and slide each solid. What do you notice?

Check all three action records. No action alone certifies the complete investigation.

Direct evidence: Investigate rolling, stacking and sliding with real solids. Every generated task requires all three actions with the supplied real solids and an explanation. Three separate teacher records preserve the action, orientation, result and reasoning. Missing or incomplete actions cannot be marked as a complete demonstration.

Administer separately

1. Prepare two matching blocks, two matching closed cans/cylinders with flat ends, one ball and a flat rigid card. Use a clear level table or mat. Keep these materials beside the task; the pictures identify them and do not replace real trials.
2. Rolling: let the child gently push a block, a cylinder and the ball on the same surface. Invite another orientation, including the cylinder on its side and on an end. Record what actually rolls, slides or tips; do not demonstrate the result first.
3. Stacking: ask the child to put one block on the other, then one cylinder on the other. Invite another cylinder orientation. Try the ball on a flat block, then the rigid card on the ball. Let go briefly, without holding the stack steady. Record which object was above and below, its orientation and whether it stayed, rolled or fell. An unstable stack is a valid investigation result.
4. Sliding: let the child try moving each solid along the same surface, including another block/cylinder orientation. Record sliding, rolling or mixed movement as observed. Do not force each solid into a single behaviour category.
5. For each action, record all three solids, orientation, surface/support, observed result and the child's words or demonstration linking the result to a flat or curved part. Every solid needs a recorded trial for every action; a prediction is insufficient.
6. Record three separate action results in Review. A missing action is incomplete, not a correct whole task. The three action records form one demonstration on this occasion, not three mastery events.

Investigate rolling, stacking and sliding

Accept: The child tries rolling, stacking and sliding with each of the three real solids, describes what happens and relates it to a flat or curved part in everyday words or demonstrations. Record all three actions separately, including each solid, orientation, surface, result and the child's explanation. A failed physical stack can be a successful investigation. Judge the observed trial; do not demand a rigid yes/no chart. A single action, a prediction, or an unrecorded action does not complete this skill.

Model response: The can rolls on its curved side. It can stand on a flat end for stacking or sliding. The block and ball behave differently when tried.

Record: Rolling / stacking / sliding records, each covering the three real solids

Rolling: record block, can and ball; orientation/surface, what happened and the child's explanation

Date observed: _____

☐ Demonstrated independently ☐ Not yet ☐ Not observed

Stacking: record block, can and ball; which object was above/below, orientation, what happened and the child's explanation

Date observed: _____

☐ Demonstrated independently ☐ Not yet ☐ Not observed

Sliding: record block, can and ball; orientation/surface, what happened and the child's explanation

Date observed: _____

☐ Demonstrated independently ☐ Not yet ☐ Not observed