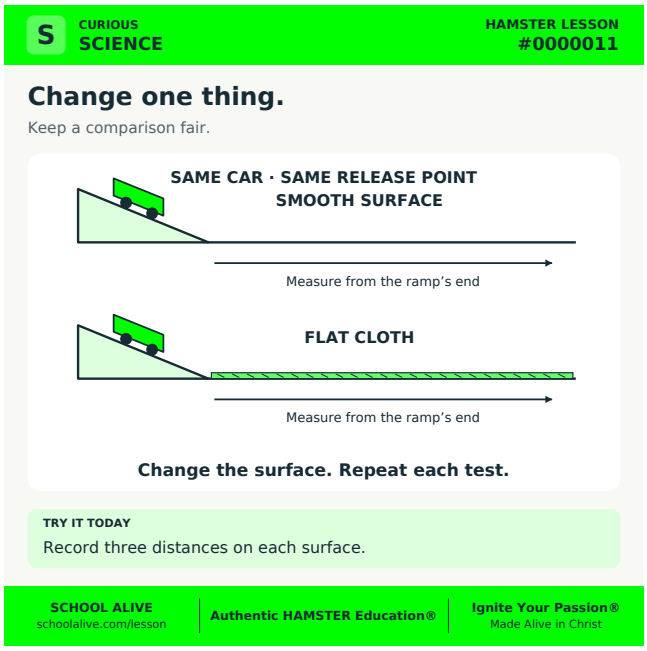

1. ❓ How can we test whether a surface changes how far a toy car rolls?
2. 🙋 Change the surface while keeping the car, ramp, release point, and measuring method the same. Repeat each test and record every result.
3. ⏳ Museo Galileo displays an early nineteenth-century inclined plane built to demonstrate Galileo's work on motion. Such apparatus connects a scientific idea with measurements people can examine.
4. 💡 Release one car from a marked place on a low ramp. Measure how far it rolls beyond the ramp on a smooth surface. Then cover that landing surface with a flat cloth and repeat from the same mark.
5. 🔍 If you change the surface and push harder at the same time, you cannot tell which change affected the distance. A fair comparison controls the other conditions.
6. 🌎 Scientists and engineers compare evidence when testing materials and designs. Repeated trials help reveal variation; an unexpected result is information to examine, not something to hide.
7. 🎯 With an adult, test the same toy car three times on each surface. Release without pushing. Record the six distances in centimeters, compare them, and explain what your evidence suggests.

References · NGSS: Fair Tests and Controlled Variables · Museo Galileo: Inclined Plane
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