



PREPARATION

THEME: RAMP RACERS

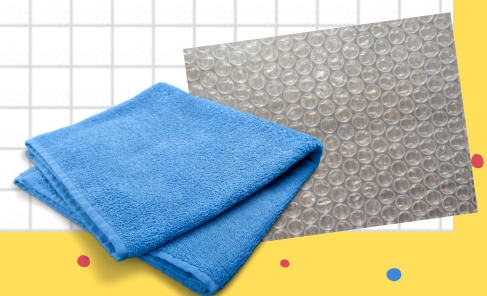
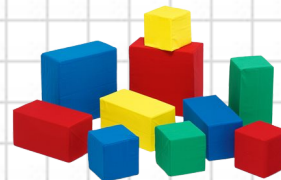
MYSTERY BAG

A SMALL TOY CAR OR
OTHER VEHICLE THAT
CAN ROLL



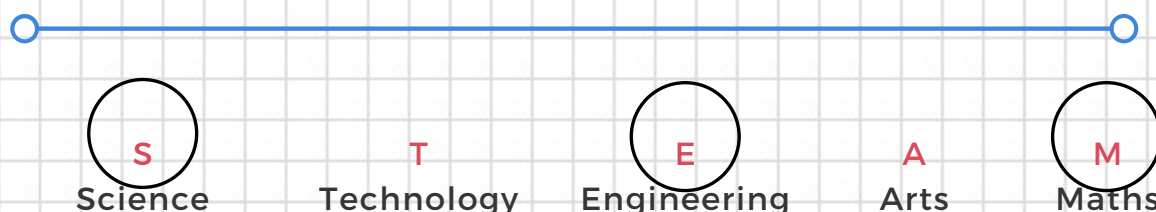
EXPLORATION RESOURCES

- SIDES OF CARDBOARD BOXES
OR LARGE HARD BACK BOOKS
- CEREAL BOX &/OR KITCHEN
ROLL TUBE
- BLOCKS OR BRICKS
- OTHER CARS &/OR TRAINS
- BALLS & ROLLING OBJECTS
(E.G. APPLE OR POTATO)
- PLASTIC/PAPER CUP
- SURFACES TO PUT ONTO
RAMPS E.G. RUG, TOWEL,
BATH MAT, BUBBLE WRAP



EXPLORATION

THEME: RAMP RACERS



Questions/Ideas:

Ramp Gradients: Let's try rolling our car/train down a ramp. How far does it travel? Can we change how tall/steep the ramp is? Does that make it go quicker or slower? How do you know?

Building Ramps: Can we build more ramps? What can we use for the ramp? How can we make one end high? Can we build two ramps to compare?

Rolling Other Objects: Let's try rolling some different objects down our ramp. Which one goes the quickest? Which do you think will roll most smoothly? Can we aim them to roll into a cup?

Changing Surfaces: Do you think covering the ramp with the rug/bubble wrap etc will change how far it rolls? Let's mark where the car stops now. Try different surfaces to compare.

Learning:

Science: Rolling down ramps (gravity); Slope gradients affecting speed; Ramp surfaces and effects of friction; Aiming into a cup (trajectory); Making comparisons; Fair tests; Making predictions, testing and observing

Engineering: Building ramps from different materials and resources

Maths: Vocabulary: steep, tall, short, quick, quicker, slow, slower; Measuring and comparing

Problem solving and creativity: Building and arranging ramps

