# The Science of Thrills

## YEAR 5 | USEFUL WEBSITES

Click the blue titles to open each website. Explore with a teacher or parent.

### GRAVITY AT WORK

**Oak National Academy: Gravity**

Explore a Year 5 lesson about the force that pulls objects towards Earth. Watch and discuss the examples with an adult.

**Think: why does a carriage speed downhill?**



### SLOWING THINGS DOWN

**Science Sparks: Friction ramps**

Investigate how different surfaces affect a toy car's movement. Ask an adult to help set up the ramp and compare your results.

**Predict: which surface will slow the car?**



### AIR RESISTANCE

**Oak National Academy: Plan a test**

Explore air resistance and plan an investigation. Follow the lesson with a teacher or parent and discuss how to make a fair test.

**Ask: what could you change or measure?**



### BUILD A ROLLER COASTER

**Science Buddies: Paper roller coaster**

Make a track from paper and tape, then test it with a marble. Work with an adult to build, test and improve your design.

**Try it: change the height of the first hill.**



### MEET THE MECHANISMS

**Oak National Academy: Levers**

Explore how a lever and pivot can help move a load. Use the video, pictures and activities with an adult.

**Spot: where can you find a lever?**



### SIMPLE MACHINES

**Oak National Academy: Simple machines**

Discover machines including levers, pulleys and wheels. Explore this Year 5 lesson with a teacher or parent.

**Design: label mechanisms in a fairground ride.**



**BIG QUESTION: How do forces and mechanisms create thrilling rides?**

TOPIC CHALLENGE: Design a ride and label the forces and mechanisms that help it move.