## WVENTORS SMAKERS

# Rides & Games Week 1 - Teacher One-Pager

<u>Focus</u>: Intro to Engineering & Inclined Planes

<u>Summary</u>: We learn about engineering and simple machines and build an inclined plane super slide.

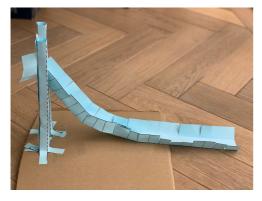
### <u>Materials per slide (group or individual):</u>

- Printed Super-Slide sheets (on coloured paper if possible)
- 3 cotton buds
- Ping pong ball
- Cardboard rectangle (~A4 size)
- Scissors
- Tape
- Optional: tape measure or coloured tape
- Optional: exercise books

#### Session Outline:

- 1.Warm Up: introduce yourself with your favourite game
- 2.Intro: what is engineering and about the 6 simple machines
- 3.Session focus: the inclined plane and how it works
- 4. Practical challenge: engineer and investigate a super slide
- 5.Recap

#### Tips & Ideas for Build:



- Use the terms: <u>inclined plane</u>, <u>incline</u>, <u>gradient</u>, <u>accelerate</u>, <u>speed</u>, <u>momentum</u>, <u>distance</u>.
- You may need to check in on the cutting and folding as children work.
- Encourage investigation and testing of gradient, momentum and distance, adding an inclined plane at the bottom and changing the flat surface to affect friction.
- To measure distances you could use a tape or metre rule or mark and label distances with coloured tape.
- Don't let anyone take their Super Slides home as they'll use them again in Week 3.

Extension Ideas:

- Add piles of books under the cardboard to raise height further.
- Design a table to record investigations.
- Use a ruler and protractor to measure height and angle of inclined plane.

#### Extra Time Ideas:

- Tidy up.
- Draw an invention that uses an inclined plane that makes your life easier.
- Play a game to name games or rides starting with every letter of the alphabet.

