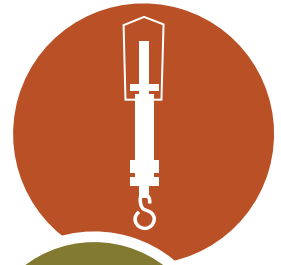




making physics matter



Age  
7-11  
years

# Scientific ideas over time

## Timeline card sort game - the fastest way to travel

### Introduction

A simple game for KS2 children who are learning about forces and movement, this game provides the opportunity to apply their new learning to vehicles. In playing the game, children will develop a historical awareness of how our scientific understanding of forces and movement has enabled engineers to develop faster ways to travel. Children will also develop their mathematical skills in sequencing dates. The aim of the game is for the children to correctly sequence the cards chronologically and to get rid of all the cards in their hand.

### Materials per pair/group

- One set of 24 laminated cards for each group of children. The cards are available to download from <https://www.ogdentrust.com/resources>
- A timer of some kind – egg timer or stopwatch.



### Instructions

- The cards are shuffled in a pile, ensuring that the date side is downwards and hidden. The cards feature vehicles that have all held a fastest speed record for that particular means of transport. The cards are dealt so that each child has four cards which they place date side down on the table in front of them.
- The remaining card pile is placed date side down in the middle of the table. The top card is turned and placed in front of the pile, revealing a vehicle and the date its top speed was measured. The timeline will form around this card. (Earliest to most recent, left to right).
- Players take it in turns to place cards from their set of four in the timeline. Without revealing the date, they slide the card into the position they think it belongs.
- The card is then turned over. If it has been placed in the correct position the player has managed to get rid of a card from their hand. If it is in the wrong position, then the card is returned to the bottom of the pile and the player takes a new card.
- Play continues until a child manages to successfully place all of their cards in the timeline. Each go must be taken within an allocated time limit, we suggest one minute.



### Taking it further

This resource can stimulate a wide range of cross-curricular learning opportunities that will support thematic learning in the classroom. Here are a few suggestions to get you started:

- **Science** – children can investigate the effect of forces on a variety of vehicles in the classroom (rubber band racers, CD Hovercrafts, paper rockets, sailing boats), designing tests to explore how different variables affect the time it takes for the vehicle to cover a fixed distance. This type of enquiry is a great way for children to apply their understanding of forces to different situations and use their newly acquired scientific vocabulary – thrust, friction, air resistance and drag – to explain their observations and measurements.
- **Maths and science** – the speed data on the cards can be used to practise rounding to the nearest 100 or 1,000. Then children can classify the vehicles into groups and seek patterns between time and the maximum speed of each class of vehicle.
- **Science, maths and design & technology** – The Bloodhound Project is a global engineering project to try and achieve a new 1,000mph world land speed record. See the 'Bloodhound for teachers' page of the Bloodhound Education website: [www.bloodhoundeducation.com/for\\_teachers](http://www.bloodhoundeducation.com/for_teachers)



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