

Introduction

Pelmanism is a term for the children's game of 'Pairs'. In this version pupils do not have to recognise identical pairs, but they must put together the start and end of a statement or question. The starts are printed in blue and the ends in black to avoid confusion.

Running the activity

Print off the card sheets and cut into individual cards. Laminate if you wish for durability. There are 52 cards in a pack. One pack is required for each group of four.

Pupils shuffle and spread the cards out face down. They each take it in turn to turn over two cards at a time. If the second completes the first card, they keep that pair and try again. If the second card does not complete the first, they turn them face down again and the next pupil begins their go. The winner is the pupil with the most pairs when all have been claimed.

Two, three or four pupils may play the game. To turn this into a question loop game laminate together the question card with the next answer in the set (Q1 goes with A2 etc.).

N.B. Pupils may need calculators.

Safety

Not applicable

More ideas

Pupils can generate their own questions to add to the set.

Lesson outcomes

- Calculation of speed, factors affecting friction, balanced forces, air resistance.

Where the activity fits in

Speed and velocity calculation topics
QCA SoW Unit 9K.

Skills

Vocabulary, numeracy.

Acknowledgements

Please send your fun size quizzes to nigel.heslop@scienceyear.com for inclusion on future CD-ROMs.

1. A mouse runs 24 metres in 6 seconds.
What speed is the mouse running at?

A 4 metres per second

Q2 A greyhound runs 400 metres in 16
seconds. What speed is it running at?

A 25 metres per second

Q3 How fast does a snail travel if it moves 1 metre in 5 seconds?

A 0.2 metres per second

Q4 A human runs 200 metres in 20 seconds. Calculate their speed.

A. 10 metres per second

Q5 A cat runs 60 metres in 3 seconds.
What is its speed?

A 20 metres per second

Q6 In air, sound travels 66 metres in
0.2 seconds. What is the speed of
sound?

A 330 metres per second

Q7 A tortoise can walk 10 metres in 50 seconds. Calculate its speed.

A 0.2 metres per second

Q8 A bullet moves 400 metres in 2 seconds. What speed is it moving at?

A 200 metres per second

Q9 A human runs 400 metres in 50 seconds. What is their speed?

A 8 metres per second

Q10 A human runs 12,000 metres (12km) in 40 minutes (2,400 seconds). What is their speed?

A 5 metres per second

Q11 A chimp climbs a 30 metre tree in 10 seconds. What is the climbing speed?

A 3 metres per second

Q12 A car travels 144 kilometres in 1 hour. What is the car's speed in metres per second?

A 40 metres per second

Q13 How do you calculate "distance travelled"?

A speed x time

Q14 What is the meaning of acceleration?

A The speed of an object is changing.

Q15 What is the accuracy of athletics lap timing?

A The nearest one hundredth of a second.

Q16 What is the accuracy of motor racing timing?

A The nearest one thousandth of a second, because the speeds are so much faster.

Q17 What produces acceleration?

A An unbalanced force.

Q18 Why has a submarine got a smooth shape?

A To reduce friction or drag from the water.

Q19 Why has a parachute got that mushroom shape?

A To produce a lot of air resistance.

Q20 What effect does high air resistance have on falling objects?

A It reduces the speed at which they fall to Earth.

Q21 What do car designers do to make car body shapes better?

A They streamline the shape.

Q22 Why do you slip over easily on ice?

A Ice has low friction.

Q23 What makes you move forward when you run?

A Your feet pushing against the ground. To do this you need high friction.

Q24 What units do we use for distance travelled?

A Metres and kilometres

Q 25 What is the formula for calculating speed?

A Speed = $\frac{\text{distance travelled}}{\text{time}}$

Q 26 What do we call the sensors used in computer data logging of distance travelled and time taken?

A Light gates

Q 27 What do we call the sensor used in a police speed trap?

A. A radar speed detector.