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Exemples of investigation questions

We have put together a selection of some of the hundreds of exciting investigations that children have come up with as part of our Big Science Event for Schools that we've run since 2009.

You can think about questions to investigate around living processes and living things (biology); materials and their properties (chemistry); physical processes (physics)... Whatever interests you! We hope these questions give you some good ideas for your investigation....



Life processes & living things: biology questions

- If you have longer legs can you jump further?
- Do ants like salty or sweet foods best?
- Does the size of jar matter for a bean to grow?
- Does the size of your hand affect your ability to tie your shoelaces?
- Do right-handed people clean the teeth on the left side better than the right?
- Are bigger snails faster?
- Which leaf is the heaviest?
- Who is best at balancing?
- Do girls see better than boys?
- Can 7-year olds run faster than 6-year olds?
- How can we keep flowers fresh for longer?
- Where do seeds grow best?
- Which colour makes apple juice the tastiest?



Life processes & living things: biology questions

- How long does it take for a grape to turn into a raisin?
- Can Guinea Pigs see colour?
- What is a bird's favourite food?
- Does exercise improve problem solving skills as you get older?
- Do you run faster swinging your arms or normally?
- Are things which are bad for plants bad for us?
- Does food make you faster?
- Does the size of your ear affect how you hear?
- Which fruit has the strongest outer layer?
- Does pre-germination preparation effect germination success?
- Does the '5 second rule' work?
- Which breed of dog can smell the best?
- Who thinks more alike: friends, twins or siblings?
- Which sense is more effective taste or smell?



Matarials & their properties: chamistry questions

- Which brand of toilet paper is stronger?
- What is the 'best' biscuit to dunk into a cup of tea?
- Which chocolate melts the quickest?
- Which fizzy drink freezes the quickest?
- What happens when you add different liquids to yeast and flour?
- How can we make the Three Little Pig's house waterproof?
- Do bigger fruits make bigger splats when you drop them?
- Which soap is the slippiest?
- Are there any colours hidden in our felt tip pens?
- What happens to chocolate in different liquids?
- What is the fastest material for a zipwire?



Matarials & their properties: chamistry questions

- What is the best material to muffle a sound?
- What material would make the softest pair of gloves?
- Which tomato sauce is the runniest?
- What material protects an egg the most?
- What material would make a good parachute for Batman?
- How much water is needed to make the wobbliest jelly?
- Which colour gummy bear is the toughest?
- What is the best material to keep hot chocolate warm?
- Which material blocks magnetic attraction the best?
- How does the material affect how quickly the spinner falls?
- Which take away cup insulates heat best?
- Which recipe makes the stretchiest slime?



Physical processes: physics questions

- What sort of stone makes the biggest splash?
- What shape parachute will take the longest to fall?
- Which stick has the biggest splash?
- Can you make bubbles different colours?
- Which fruits will float?
- Which ball creates the most noise?
- Which ball drops to the ground the quickest?
- Which design of paper aeroplane travels the furthest?
- Do mirrors always reflect?
- Does the topping affect which way round toast lands?
- What ball goes further if it is kicked or thrown?
- How many breaths does it take to blow up a balloon?
- How many times do different balls bounce in 5 seconds?



Physical processes: physics questions

- Does the contents of a can affect how it rolls?
- How much air does it take to pop a banana?
- How many elastic bands does it take to explode a melon?
- How much weight can a marshmallow and spaghetti structure take?
- Which fruit has the strongest outer layer?
- How does the distance from the light source affect the shadow?
- Does weight affect the number of rotations of a paper spinner?
- Does the heaviest fruit travel furthest when thrown?
- Which toy car goes furthest on a ramp?
- Which tennis ball goes further a wet one or a dry one?
- Which is the strongest bridge design?



Enfer the Big Science Event of Home

When you've finished your investigation, fill in our online form and upload your results: scienceoxford.com/big-science-event-at-home

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If you have any questions, just email us on: competition@scienceoxford.com



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