Science: Skill Focus - Analysing

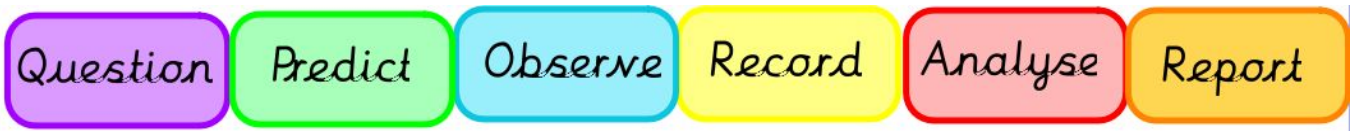
Question

Do your reactions get better the more you exercise?

1. Test your reaction time by holding a ruler (or stick) just above your other hand.
2. Drop the ruler and try to catch it.
3. Measure how far the ruler dropped before catching it.

(If you don't have a ruler, use a long thin object, lay object on paper and draw length)

4. Record the distance dropped.
5. Do 10 star jumps or sit ups.
6. Repeat steps 1-5.
7. Do another 10 star jumps or sit ups.
8. Continue repeating to see if your reaction time changes. (The shorter the distance the quicker your reaction).



Younger Children	Older Children
Create a diagram to show how you set up your experiment. What did you find? Did your reaction time speed up or slow down?	Record your results using a bar chart or graph. Analyse your results. Did carrying out star jumps affect your reaction time? Why do you think that is? How could you improve the experiment? What else could you test? Eg. Reaction time versus age or time of day?

Challenge	About this type of Science
Close your eyes and get somebody else to drop the ruler. Make sure they say 'Go' when they drop it. Is your reaction time quicker or slower with your eyes closed? How about if they tapped you on the shoulder instead of saying. 'Go'. Do you respond quicker to sound or touch?	*Reactions are how long it takes to respond to a stimulus. Some reactions are automatic, meaning you act before you think about it. Eg. removing your hand if you touch something too hot or closing your eyes if something flies towards them.* *Astronauts, pilots, sports people and surgeons all need to be able to react quickly.*