**Maths Problem of the Week**

**Exploring**

Kevin, Jack, Caleb and Justin have to walk through a long dark tunnel. They only have one torch between them so a maximum of two people can go through the tunnel at any one time. Each person takes a different amount of time to get through the tunnel and if two people walk together they must walk at the rate of the slowest.

|  |  |  |
| --- | --- | --- |
| Kevin takes 2 minutes,Jack takes 3 minutes,Caleb takes 5 minutes,Justin takes 8 minutes.What is the least amount of time for all four to walk through the tunnel? |   | Notes:1. All four begin at the same end of the tunnel.2. The torch must be walked back through the tunnel by at least one person, it cannot be thrown.3. The answer is less than 20 minutes! |

Example:
If Caleb and Justin walk through the tunnel together it will take 8 minutes, If Caleb then walks the torch back through the tunnel a total of 13 minutes will have passed. Continue till all four are at the other end of the tunnel.