|  |  |  |
| --- | --- | --- |
| **Challenge** | **What to do** | **Extension Task** |
| The Lego catapult. | Use Lego and an elastic band to build a Lego catapult.  Once your catapult is successfully working, measure how far things fly using a ruler! If they go very far, you may need to use a tape measure, which works the same as a ruler but is much longer!  (This webpage will help if you need help https://littlebinsforlittlehands.com/easy-lego-catapult-and-tension-experiment-for-kids/) | Can you make it fly shorter distances? How about making it fly further?  (Hint – think about our forces lesson earlier in the week)  What happens if you use a heavy object compared to a lighter object? |
| How far does a paper plane fly? | Use a piece of paper and fold it into an aeroplane.  Take it outside and experiment with different ways of throwing it. Each time you throw it, measure the distance it has gone.  (Some instructions can be found https://www.bbc.co.uk/newsround/26050831) | Research online for different ways to make paper aeroplanes and try them out. Is there one design that you think works best? |
| Build a bridge with items you can find at home. | Think back to the STEM lesson we had last term when we made paper bridges. Think about what we discussed, what issues you faced and how you resolved them.  Now, look around your house for items that would be good for building a bridge. How long can you make the bridge before it becomes unstable or collapses?  Measure the length and height of it. | Try to build a bridge which spans across something rather than sitting on the ground. For example, can you make it start on the sofa and end on a table?  Or  Can you build a bridge which is exactly 50 centimetres in length? |