Builder Challenge

- How high can you build a tower that will withstand an ‘earthquake’? (Earthquake = Build the tower on a small table and shake gently). Increase the strength of the earthquake. Try with several different designs. Draw or record the best and worst design when faced with an earthquake.

- Choose a famous building from anywhere in the world. Can you draw it? Can you make it out of junk materials? If you have a sandpit can you recreate it? Take a picture of your creation.

- Build a structure that your favourite character, from a film or book, would love to live in. Label a drawing or take a picture of the finished design.

- Write a ‘For Sale’ advertisement for a dream house. Include the best features and describe them so somebody would really want to buy it. Don’t forget to include a floor plan.

- Redesign your bedroom. There is no limit on space or your imagination. What will you include in your room? Write a note to your family explaining why this room would be perfect for your needs.

- Build a hotel for bugs! Use materials from the garden and recycle objects to make a cosy home. (Links to Green Challenge) Put it outside and see who comes to stay!

- Build a den indoors or out. How many people will fit in the den? Write an invitation for one of your family to come and visit you in your den.

- Design and build a bridge that will support one of your toys. It could be a teddy who needs to cross or a truck. Draw the plan for your bridge and draw or take a photograph of the finished design. Don’t give up if it doesn’t work first time – improve your design and try again.

- Build a trebuchet. Measure how far you can you fire a small ball of scrunched up paper. Can you improve design to get a better result? Try different objects and record which goes the furthest.

- Build an obstacle course in the garden. (Links to Sport and Fitness Challenge) Time yourself and see if you can beat your time. Can the rest of the family complete the challenge? Record the results in a table.