

Rokeby School

KS3 - STEAM Challenge

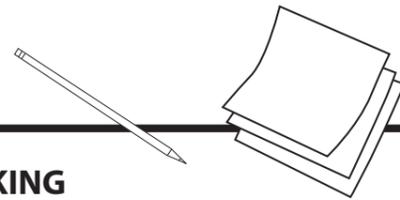
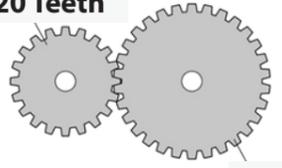
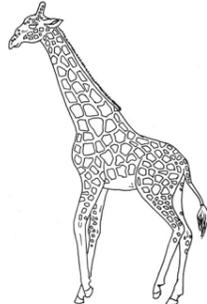
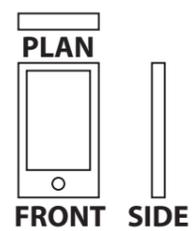


You can complete any activity in any order.

Present your work as creatively as you can. (Maybe in a book or a Power Point Doc)

Keep a record of your work (Upload to Google Classroom CODE: yh7de7r)

Cross off the ones that you have completed. CAN YOU COMPLETE ALL OF THE CHALLENGES?

S Science		T Technology		E Engineering		A Art		M Mathematics	
METAL Find three things that are made of metal. Why are they made from these materials?		PROBLEM SOLVING Think of a problem you have encountered during Covid-19. Design a solution to the problem. 		ONE POINT PERSPECTIVE Draw your name in 3D. Use colours to make the letters stand out. What else can you add? 		ADVERTISING Think about one product that you believe to be essential during Covid-19. Make a marketing flyer to help promote or advertise the product. 		GEAR RATIO If gear A rotates three times, how many times would gear B rotate? Gear A - 20 Teeth  Gear B - 30 Teeth	
EVOLUTION Giraffes are adapted to live on the African savanna. Explain in your own words how Giraffes have adapted to suit their environment? 		PRODUCTION METHODS How are trees turned into paper? 		POLYMERS Plastics can be categorised into one of 7 groups. How many different types can you find? 		MARK MAKING What textures can you find around your home? Make rubbings using paper, pencils, coloured pencils or pastels. Do the markings resemble anything else?		CALCULATE An electric circuit board measures 55mm x 40mm. Calculate how many whole circuit boards can be cut from a large sheet measuring 60cm x 30cm	
ENERGY What are finite and non-finite resources? Why is it important for you to know? 		DESIGN PPE is personal protective equipment. Design a mask/visor that helps stop the spread of airborne diseases. 		FUNCTION over FORM Can you find examples of products that work really well but don't look great? How else might we describe a products appearance?		MAKE Design and make a product with the use of at least one loo roll tube. You may add additional material or components to your design.		AREA/COSTING A roll of wallpaper is used to decorate a wall that is 3m wide and 2.6m tall. The width of the roll is 700mm wide. a) Calculate the length of wallpaper needed to cover the wall.	
NUTRITION E Numbers are codes for substances used as food additives for the use within the European Union. Find three examples of food from your home that contain E numbers. What are these E Numbers used for? 		TEXTILES Find three different types of fabric. Why are they made from these materials?		RECIPES How many different recipes can you make with these ingredients? Flour, Eggs, Sugar, Margarine, Butter. What else could you add?		ORTHOGRAPHIC DRAWING Find an object and draw it from the front, above (plan) and right hand side. Lay your drawing out like this. 		POSTER Create a poster to explain the 6R's Reduce, Reuse, Recycle, Repair, Rethink, Refuse 	
b) The wallpaper is available in rolls of 10m long. Calculate how many rolls are needed to cover the wall.		c) Calculate the cost of any unused paper (wastage), if a roll costs £25.				