

Stone Hill School
Curriculum Plan 2019/20
Lower School

Intent:
 Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

Design

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

Technical knowledge

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

Class	Topic/Theme <i>Steam</i>	Learning Outcomes Knowledge and Skills To know, to use, to apply...	Literacy Link Numeracy Link SMSC Link
Class 3	Building Lego kits or own designs Play dough modelling Junk modelling Clay modelling	<u>Learning Outcomes:</u> I can name which tools I am using. I can use hand tools and materials with help. <u>Skills:</u> Using basic tools e.g. scissors, brushes	Literacy – subject specific vocabulary
Class 4	Building Lego kits or own designs Play dough modelling Junk modelling Building KNEX kits Clay modelling Card modelling	<u>Learning Outcomes:</u> I can talk about my own work in simple terms. I can use pictures and words to describe what I want to do. <u>Skills:</u> Assessing risk / hazard spotting Using basic tools e.g. scissors, brushes,	Literacy – speaking to a small group
Class 5	Building Lego kits or own designs Building KNEX kits Clay or card modelling Modroc / papier mache	<u>Learning Outcomes:</u> I can generate ideas and identify features of familiar products. I can explain what I am making when asked. <u>Skills:</u> Teamworking Problem solving Assessing risk / hazard spotting Using basic tools e.g. scissors, brushes, screwdrivers, spanners etc	Literacy – answer technical questions SMSC – Working as a team
Class 6	Building Lego kits or own designs Building KNEX kits Using Meccano Clay or card modelling Modroc / papier mache STEAM Challenges (e.g. raft building)	<u>Learning Outcomes:</u> I can put my ideas into practice with staff help. I can describe how a simple product works. <u>Skills:</u> Teamworking Problem solving Assessing risk / hazard spotting Using basic tools e.g. scissors, brushes, screwdrivers, spanners etc Following a flow chart Planning how to make something Using a digital camera Become familiar with the technology room	Literacy – following written instructions SMSC – Awareness of Risk Assessment

Materials, Resources and Tools:

Lego, KNEX, Meccano, Clay, Scissors, Screwdriver, Spanner, Set square, Ruler, Stencil, Allen key, Clay modelling tools, Junior hacksaw, Hammer, Pliers, Sand paper, Paintbrush, Tape measure, Card, Balsa wood, Dowel, Plywood, MDF, Salt dough, Play dough, Clay, Stickle bricks, Duplo, Lego, Technical lego, Nuts and bolts, Wheels, Screws, Nails, Papier mache, Plaster of Paris / Modroc

Intended impact:

Students should be familiar with the design process before they enter Year 7.

