# Splendid Structures

**Entry Task**
Walk through a tunnel and over a bridge in our locality. Discuss the difference in structure, materials and architecture.

**Big Question**
How has architecture evolved?
Where are the tallest towers? How do we know?
What are materials and how are they used?

**What to Revisit?**
Geography: Y1: aerial photographs, locating features, physical and human features inc. landmarks of Brazil. Y2: mapping, continents, oceans, symbols
Science: Y1: naming and describing materials, distinguishing between objects and the material they are made from Y2: Can you change the shape of all objects?
Y1 DT: Moving parts, joining materials, plan, design & evaluate cycle

**Threads**
progress, adaptation, community, navigation, comparison

Can I identify and name landmarks in my local Liverpool community?

Can I **compare** the structure of St. John's Beacon to other famous towers around the world?

Can I identify and name other famous towers and their architects including Petronas Towers (Cesar Pelli) Christ the Redeemer (Paul Landowski) and Statue of Liberty (Frederic Auguste Bartholdi)?

Can I use aerial photographs to identify human and physical features and recognise famous landmarks?

Can I use simple compass directions, locational and directional language to navigate to the location of landmarks on a map?

Considering the structures we have studied, how have different materials been used?

Can I Identify and discuss the uses of different everyday materials?

How are some materials used for more than one thing? Can materials be adaptable?

Are there objects which can be made from more than one type of material?

Can I compare the suitability of a variety of everyday materials for particular uses?

What is a freestanding structure? Can I explain the functions of freestanding structures including a base, a buttress, framework and brick work?

Researching existing structures, can I distinguish between supported and freestanding structures?
Who is Adrian Smith and what was he famous for?

Can I name and practice cutting & joining techniques using recyclable materials? Can I choose from a range of materials considering their characteristics and providing a verbal rationale for my decisions?

In a construction crew, can I design a freestanding structure from a given design criteria, that reflects our local community?

In a construction crew, can I construct a freestanding structure following a given design brief?

In a construction crew, can I add finishing touches to my freestanding structure, giving reasoning behind my choices?

Can I evaluate the effectiveness of our structure and rank order my peers' structures based on fulfilment of the design brief?

**Celebration/Evaluation**
Can we create a human tunnel of facts for our Y1 children to travel through?

**Curriculum Passport Challenge**
To visit a landmark of Liverpool and create a sketch labelling and discussing the features I can see.

**Key Vocabulary**
As a geographer, I will use... Liverpool, landmark, local, aerial photograph, compass directions, north, east, south, west, locational & directional language, near, far, left, right, feature, map, Petronas Towers- Cesar Pelli, Statue of Liberty-Frederic Bertholdi, Eiffel tower- Gustav Eiffel
As a scientist I will use...materials, object, suitability, purpose, use, wood, metal, plastic, glass, brick, rock, paper, cardboard, shape, solid, change, squash
As a design technologist I will use...structure, function, materials, cutting, joining, constructing, base, buttress, stabilise, centre of gravity, design, evaluate, thicker, thinner, surface, structure, metal, plastic, template, stability, stiffen, strengthen, components, prototype, design criteria, recycle, Adrien D Smith

DRIVER SUBJECTS ARE
SCIENCE, GEOGRAPHY AND DT