

Design It! Build It!

Vocabulary: Design – A plan of the shapes, sizes, colors and building materials needed to create something

Material – The things being used to build

Model – A small copy of a structure

Structure – A building or something built of parts arranged in a special way

Support – To hold up or keep something from falling

Tower – Tall structure or building

Height – How tall something is

Length – How long something is

Bridge – A long structure to go across and above something like a river or road

Weight – How heavy or light something is

Biomimicry – To build something based off of something in nature

Picture Walk & Prediction: What does the title say that we are going to be talking about? What are the children building on the front cover? What are some of the buildings we will be talking about? (Teacher's Note: Remember to record their answers)

Reading: Why are children flying kites? What are the people pointing to? What is going on on the computer? Do we have any computer programs that let you build things? Why are there pictures of spider webs and bubbles? Do they look like anything else on that page? Did you know that to build something based on nature is called Biomimicry? Why does the house look like it has legs? What do you think those legs are called? Why do they use them? I see a helicopter in this picture; I wonder what it is doing there? Uh oh; is something wrong with this building? Lots of people are working together on this structure; have you worked with someone else on a building? Was it easy or hard and why? What did they build here? Is it a building or something else?

Response: Was there any other buildings to add to our list? Have you built something you were proud of? (Have the children bring pictures from home of their structures and do a show and tell.)

The Shape of Things

Vocabulary: Length – How long something is

Square – Four sided, four cornered shape with sides of equal length

Circle – A shape with no sides or corners

Triangle – A shape with three sides and three corners (Teacher’s note: make sure to point triangle in different directions with different lengths of sides and angles)

Rectangle – A shape with four sides and four corners but with sides of unequal length

Oval – A shape that resembles an egg

Diamond/Rhombus – A four sided figure with equal sides (Teacher’s note: a square can be a rhombus but a rhombus does not need 90 degree corners, you could call it “L shaped corners” for your students)

Shape – A basic outline repeated in lots of things we see

Design – A plan of the shapes, sizes, colors and building materials needed to create something

Materials – The things being used to build

Picture Walk & Prediction: What shapes do you see on the front cover? What do you think we will do in the rest of the book? What shapes might we talk about? What do you think they might build with those shapes? (Teacher’s Note: You might offer them sheets of paper with shapes in the center and ask them to draw what they think they might see in the book.)

Reading: Either fold the book and read the description with the shape and have them guess what is on the next page

and/or

Ask, “What do you see? What shapes are there on the page? Do you see any of those shapes in our classroom? At your home? Outside in nature? If you had this shape, what would you make it into?”

For Circle and Diamond/Rhombus Pages talk about partial shapes like the crescent, semi-circles, or how two triangles make a rhombus. Ask them if they can find any of these partial shapes on the page.

Response: What new shapes were not on our list from before? What did they make out of them? Could you make me a new picture using shapes? Remember the last page of the book; How many different shapes can you use for your picture?