

Click on the exercising people, for a link to helpful information. Where possible, use notes and labelled sketches in your answers.

STRUCTURES - INTERACTIVE KNOWLEDGE MAP

INDIAN ASSOCIATION OF TECHNOLOGY TEACHERS <https://www.facebook.com/groups/254963448192823/> www.technologystudent.com © 2020 V.Ryan © 2020



1. MAKE A CARD SQUARE AND TRIANGULAR FRAME AND TEST THEM. WHICH IS STRONGEST?



2. WHAT IS TRIANGULATION? WHY IS IT COMMONLY USED IN STRUCTURES?



3. WRITE A PARAGRAPH ABOUT THE EIFFEL TOWER. Paste an image of the tower.



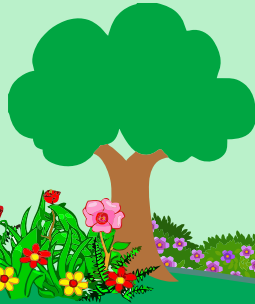
4. SKETCH AND NAME FIVE SECTIONS OF SOLIDS / TUBES. (sections are often used in structures).



5. THERE ARE FIVE MAIN TYPES OF FRAME STRUCTURES. NAME EACH ONE.



6. DRAW AN EXAMPLE OF A PLAIN FRAME STRUCTURE.



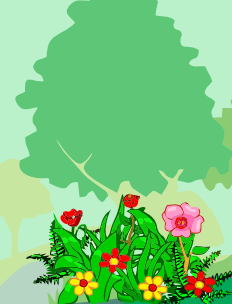
7. WHAT ARE STRUCTURAL FRAMES? Paste two images of this type of frame.



8. WHAT IS A SPACE FRAME STRUCTURE? Paste one example of this type of frame.



9. WHAT IS THE DIFFERENCE BETWEEN MONOCOQUE AND SEMI-MONOCOQUE STRUCTURES?



10. SKETCH AND DESCRIBE A WOOD FRAME BRIDGE.



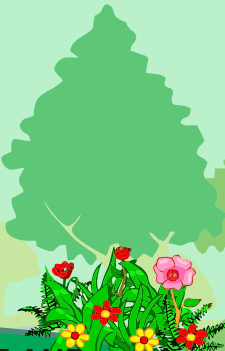
11. SKETCH A STONE ARCH BRIDGE. WHAT IS IMPORTANT ABOUT THE KEYSTONE?



12. WRITE BRIEF NOTES ON THE RIBBLEHEAD VIADUCT. Include an image.



13. DESCRIBE AND SKETCH A CABLE STAY BRIDGE. Name a famous example.



14. PASTE AN IMAGE OF A CANTILEVER BRIDGE AND ALSO A SUSPENSION BRIDGE. Name each bridge.



15. WHAT WAS THE TACOMA NARROWS SUSPENSION BRIDGE DISASTER? Include an image of its final moments.