

WHERE POSSIBLE, ANSWER THE QUESTIONS WITH NOTES AND SKETCHES. CLICK ON THE GECKOS FOR HELPFUL LINKS.

# BIOMIMETIC DESIGN (BIOMIMICRY) - KNOWLEDGE MAP

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS

<https://www.facebook.com/groups/254963448192823/>

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1. WHAT IS BIOMIMICRY?

2. WHAT IS THE LINK BETWEEN THE JAPANESE BULLET TRAIN AND THE KINGFISHER? Include images of both.

3. WHAT IS VELCRO? WHY IS IT AN EXCELLENT EXAMPLE OF BIOMIMICRY?

4. DESCRIBE THE PRODUCT INSPIRED BY THE GECKO ? Include an image.

5. WHAT IS THE BIOMIMETIC LINK BETWEEN THE SCALY PANGOLIN AND A RAILWAY STATION?

8. FOLLOW THE LINK AND LOOK AT THE SHELVING SYSTEM BASED ON A NATURAL TREE. THEN, DESIGN A COFFEE TABLE BASED ON THE SAME 'NATURE INSPIRED' STYLE.

Includes notes explaining your design.

7. YOU ARE TO DESIGN A SHELTER FOR FOUR PEOPLE, BASED ON THE STYLE OF THE BIOMIMETICALLY INSPIRED SYDNEY OPERA HOUSE. FOLLOW THE LINK FOR EXAMPLES.

Explain how your design links to nature

6. HOW WAS THE SYDNEY OPERA HOUSE INSPIRED BY NATURE?

Include information about the architect, an image of the Opera House and a sketch explaining 'nature's influence' on its design.

9. FOLLOW THE LINK - STUDY THE HONEYCOMB STORAGE SYSTEM INSPIRED BY BEES. THEN, QUICKLY 'SKETCH' A LOCKER SYSTEM FOR SCHOOL CORRIDORS, BASED ON THE SAME STYLE.

10. FOLLOW THE LINK - WHAT DO YOU THINK OF THE SUNBED? HOW CAN IT BE IMPROVED? SKETCH YOUR IMPROVED VERSION.

## EXTENDED TASK

11. WILDLIFE THEME - COFFEE MUG DESIGN INSPIRED BY A LADYBIRD.

Design a coffee mug or drinks container of your choice, inspired by a Ladybird or another insect. Click on the three Ladybirds A, B and C (in order), for the design problem in more detail and examples.

