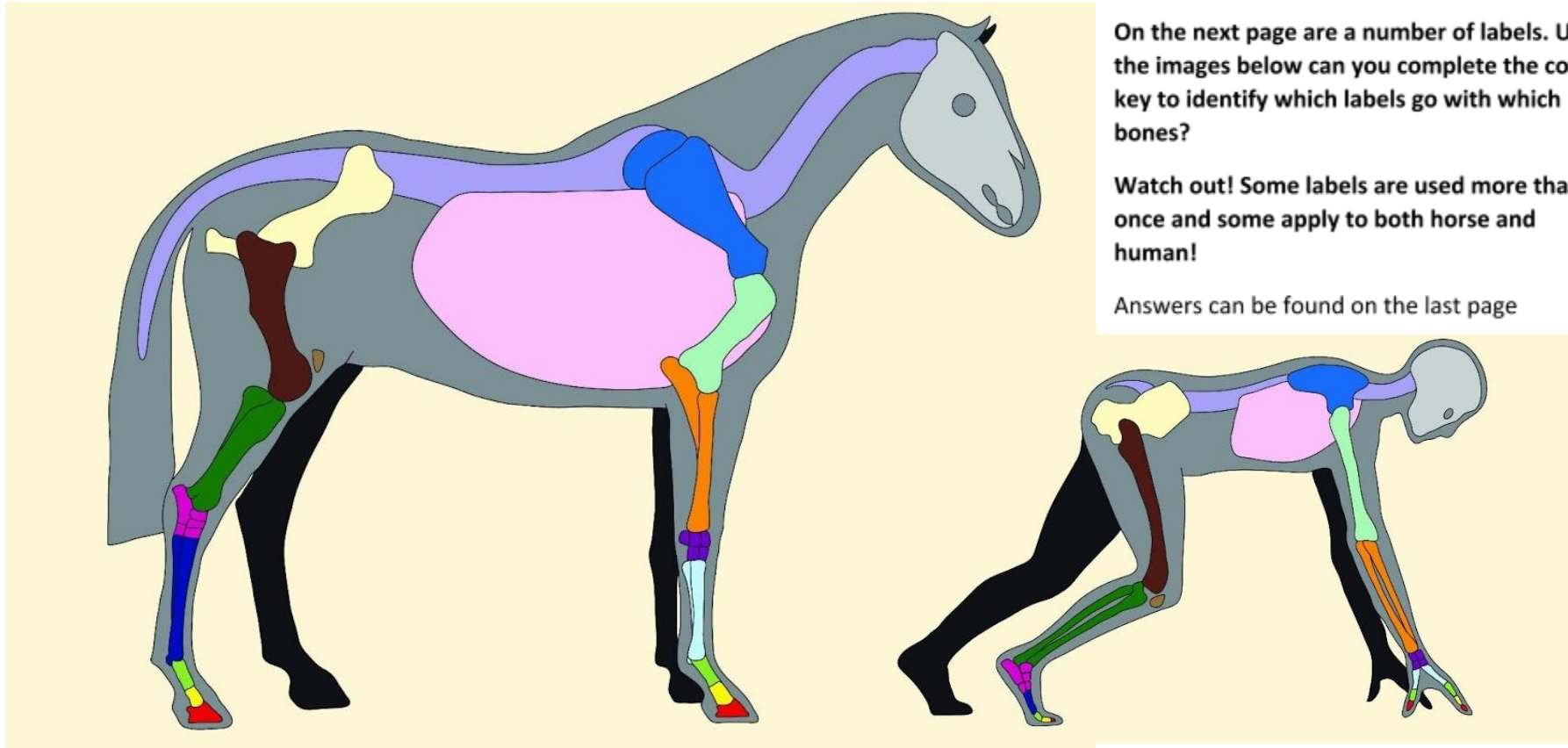


Horse and Pony
KS3 Monday
Science



On the next page are a number of labels. Using the images below can you complete the colour key to identify which labels go with which bones?

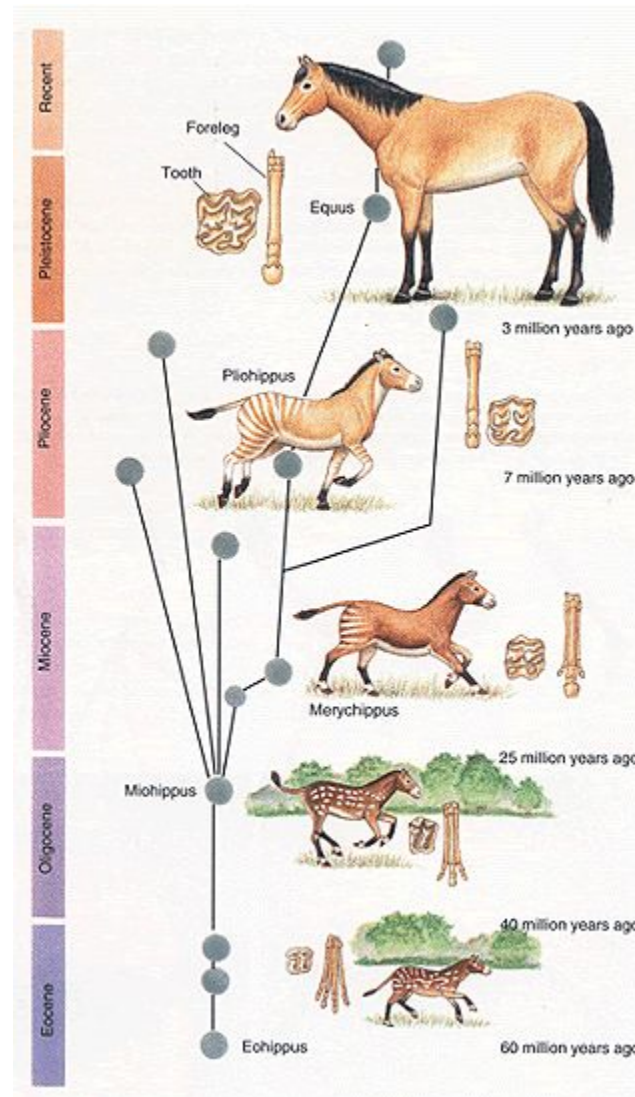
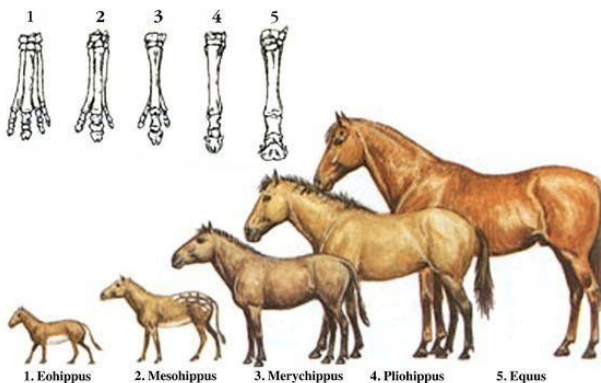
Watch out! Some labels are used more than once and some apply to both horse and human!

Answers can be found on the last page



The Evolution of the Horse

1. Ankle
2. Hock
3. Femour
4. Tibia and Fibula
5. Fingers/Toes
6. Long pastern bone
7. Short Pastern Bone
8. Pedal Bone
9. Humerous
10. Metacarpal bones
11. Cannon bone
12. Hind cannon bone
13. Patella
14. Pelvis
15. Radius and Ulna
16. Ribcage
17. Scapula
18. Skull
19. Spine
20. Wrist
21. Knee



Modern horses (*Equus*) have evolved from dog-sized herbivores known as *Eohippus*.

Slow adaptation to open, grassland habitats brought changes in the structure of the limbs by the gradual reduction of toes touching the ground. This has enabled the animals to run faster and successfully escape predators. At the same time, the changing diet and feeding pattern (browsing leaves in bushes to grazing grassland) transformed the size and structure of teeth as well.

This is an example of how the changing environment (from forest to grassland) meant that longer legs, less toes and different toes became advantageous. The animals that were best suited to the changed environment were able to survive and reproduce and pass their characteristics on to the next generation.

Can you fill in the table to show the developmental changes from Eohippus to Equus

Name	Appeared	Size	Number of toes
Eohippus			
Miohippus			
Merychippus			
Pilohippus			
Equus			

largest 25 Million Years Ago 3 toes 1 (hoof)

40 Million Years Ago Small 3 Million Years Ago large

Medium 1 and 2 vestigial 60 Million Years Ago

1 toe Smallest 7 Million Years Ago 4 toes