



EQUINE DENTIST



STUD MANAGER



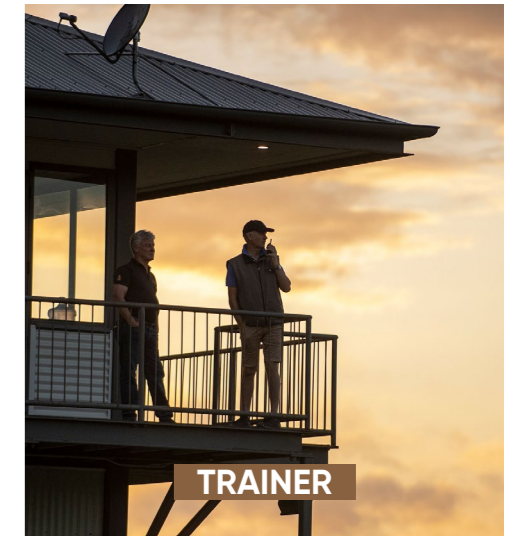
TRACKWORK RIDER



SCIENTIST



STUD HAND



TRAINER



FOALING ATTENDANT



STALLION MANAGER



RACEDAY STRAPPER



EQUINE VETERINARIAN OR VET NURSE



RACING MANAGER



MEDIA & COMMUNICATIONS

CAREERS IN AUSTRALIA'S THOROUGHBRED INDUSTRY



JOCKEY



EQUINE NUTRITIONIST



FARRIER



BLOODSTOCK AGENT



STABLE HAND



PHOTOGRAPHER

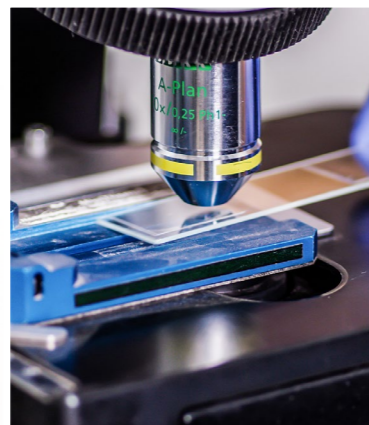
Scan the QR code to access curriculum aligned **Thoroughbred Horses** fact sheets.

Australian Curriculum content: AC9TDE8K01, AC9TDE10K01, AC9TDE2K01, AC9TDE4K01, AC9TDE6K01



RESEARCH & DEVELOPMENT

Genetics
Breeding
Health and disease control
Industry safety



PROTECTING AUSTRALIAN THOROUGHBREDS



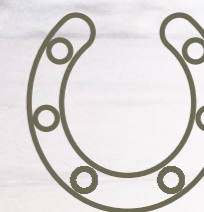
BIOSECURITY

Personal Protective Equipment (PPE)
Staff training
Quarantine
Sanitisation



TECHNOLOGY & INNOVATION

GPS tracker
Heart rate monitor
Sports Science
Data



ANIMAL WELFARE

Nutrition
Equine Veterinarian
Training
Dental health



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Australian Curriculum content: AC9TDE8K01, AC9TDE10K01, AC9S7H01, AC9S8H01, AC9S9H01, AC9S10H01

THE CHARACTERISTICS AND FEATURES OF THOROUGHBRED HORSES

Large eyes positioned on the sides of the head allow them to see almost all the way around their bodies.



Ears that can turn in different directions to detect noises from all around them and show their mood.



Large nostrils help them to breathe lots of air into their lungs quickly.



Long, thin legs allow them to take big steps when walking, trotting, cantering, and galloping.



Large muscles at the tops of their legs help them to speed up quickly and keep a fast pace as they race.



The hooves of thoroughbreds are hard and strong, for protection when moving.



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Australian Curriculum content: AC9SFU01, AC9S3U01

FOAL
0 - 6 months



WEANLING
6 months - 1 year



YEARLING
1 - 2 years



FILLY/COLT
2 - 3 years



SIRE/BROODMARE (DAM)
3 years +



THE LIFE CYCLE OF THOROUGHBRED HORSES

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Australian Curriculum content: AC9S3U01

THE NEEDS OF THOROUGHBRED HORSES



Scan the QR code to access curriculum aligned **Thoroughbred Horses fact sheets**.
Australian Curriculum content: AC9S1U01, AC9S3U01

THOROUGHBRED ENERGY, MOTION, AND MOVEMENT

Energy transformations occur as a horse moves.

Chemical energy → **Mechanical energy** → **Kinetic energy**

Speed = $\frac{\text{distance}}{\text{time}}$

Speed is measured in metres per second (m/s), or kilometres per hour (km/h)

Some energy is transformed into thermal (heat) energy as a by-product of muscle activity, and is lost as heat from a horse's body. Some is also lost as sound energy.



Force_{net} = mass x acceleration

(F = ma)

F_{net} is total force acting on an object measured in Newtons (N)

m is mass of the object (kg)

a is acceleration of the object (m/s²)

Newton's first law of motion (the law of inertia)

An object at rest will remain at rest, and an object in motion will continue in motion at constant velocity (the same direction and speed) unless acted upon by an unbalanced force.

Newton's second law of motion (the law of acceleration)

The acceleration of an object depends on the mass of the object and the force applied to it.

Newton's third law of motion (action and reaction)

For every action, there is an equal and opposite reaction.

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Australian Curriculum content: AC9S7U04, AC9S8U05, AC9S10U05