

LEARNING AREAS: SCIENCE, MATHEMATICS,  
DESIGN AND TECHNOLOGIES, ENGLISH

# The Needs of Thoroughbred Horses





## The Needs of Thoroughbred Horses

All living things have needs. For living things (organisms) to survive and reproduce, their needs must be met.

Thoroughbred horses need food, water, shelter, air, and the company of other horses to survive and reproduce. In the thoroughbred industry, people take special care of these horses to ensure they are fit and healthy at different stages of their lives.

Caring for racehorses is a big job and involves lots of different people responsible for feeding, training, shoeing, and checking the horses to keep them healthy and race ready.

### Meeting the needs of thoroughbred horses

Just like humans and all other living organisms (plants and animals), thoroughbreds need oxygen to survive. They use their large nostrils to breathe in oxygen and breathe out carbon dioxide. People working with thoroughbreds make sure the horses always have access to fresh air when they are in stables or being transported in horse trucks or trailers.

### Why do thoroughbreds need shelter?

Shelter keeps animals safe from danger and helps them to stay cool in hot temperatures and warm in cold temperatures. Thoroughbred horses are usually kept in a stable, yard or paddock that provides them with shelter (such as from trees, a shed, or a stable roof) and enough room to move around comfortably.



## Why do thoroughbreds need company?

Company is not a need for survival; however, thoroughbred horses often feel more relaxed with other horses around them. On a thoroughbred farm, horses are usually put in paddocks with other horses of their own age and gender. If the horses sleep in a stable, they can always see other thoroughbreds in the stables around them. This helps them to feel calm and safe.

## What does a thoroughbred horse eat?

Thoroughbred horses eat a mixture of roughage (e.g. hay and grasses) and grains (e.g. oats and barley) to meet their needs as they grow and change. Roughage gives horses fibre that keeps their bodies working as they should. Grains provide them with the energy they need to train and race.

Stable hands or stud hands are the people responsible for feeding thoroughbred horses. They mix special rations for each horse depending on how much roughage or protein the horses need. This is decided by their age, their weight, and how much exercise they do in a day.

Thoroughbreds that are racing long distances, such as the Melbourne Cup (3,200 metres or the same as 8 laps around an athletics track!) need plenty of energy to maintain high speeds over long distances without getting tired quickly. These horses are fed more grains in their ration of food to fuel their bodies and repair their muscles.

Young thoroughbreds, or those that do not race and train, don't need as much energy so have less grain and more roughage in their feed rations.



**Roughage**



**Grain**



**A racehorse's ration**



## How much water does a thoroughbred need?

All plants and animals depend on water to survive. Thoroughbred horses need to drink approximately 30-50 litres of water each day to make sure that their bodies function properly. That's about the same as 50 drink bottles of water!

## Who helps to meet the needs of thoroughbred horses?

**A stable hand** starts work very early each morning (sometimes as early as 3:00 am!). Their role is to take care of thoroughbred horses by grooming, feeding, and checking that they have water. Thoroughbreds are groomed every day to keep their coats clean and shiny. During grooming, stable hands also check that the horses are healthy, looking out for any injuries and illnesses by checking their temperatures and behaviours.



**Stable hand**

**Equine veterinarians** are specially trained to care for horses' health and welfare. They work closely with trainers, breeders, and stable hands to treat thoroughbreds when they are injured or sick and make sure they are fit and healthy for racing.



**Equine veterinarian**

**Farriers** take care of horses' hooves by trimming and shoeing them to prevent problems and keep them in good condition. Racehorses need to wear horseshoes to protect their feet when running on the surface of a racetrack.



**Farrier**

**Stud hands** look after the horses on breeding and stud farms. They make sure the broodmares and foals get the right food and care during pregnancy and after birth. Stallion handlers look after the stallions, ensuring they are healthy, fit and get the right care in preparation for the breeding season.



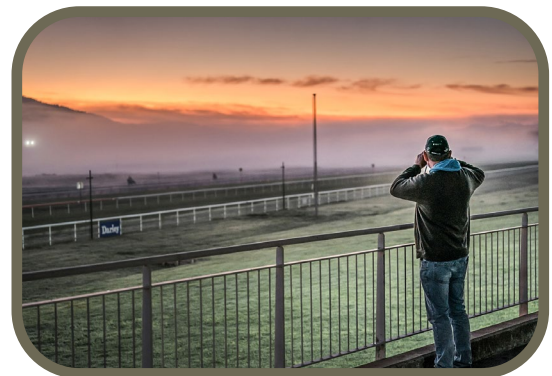
**Stud hands**

Did you know that horses' teeth keep growing for most of their lives? This is because they spend a lot of time chewing grass and hay, which slowly wears down their teeth. The ongoing growth helps to replace the worn-down parts. **Equine dentists** take care of thoroughbred horses' teeth so they can eat properly and stay healthy.



**Equine dentist**

**Horse trainers** have the very important job of getting racehorses ready for races by creating training programs based on each horse's strengths. They supervise workouts, monitor health, and prepare horses for races. Trainers need plenty of experience working with horses and knowledge of racing strategies.



**Horse trainer**

**Track riders** exercise horses to keep them fit and healthy for racing. Their work starts early (around 4:00 am!). They work with horse trainers to make sure the racehorses are doing the right amount and type of exercise to keep their bodies strong and safe while training.



**Track riders**

# The needs of thoroughbreds

## Tracing activity

Read and trace each of the needs of thoroughbred horses.



air



shelter



water



food



company

# The needs of thoroughbreds

## Reading comprehension

Answer the questions to show what you know about the needs of thoroughbred horses.

a) What things do thoroughbred horses need to survive and reproduce?

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b) What types of food do thoroughbred horses eat?

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c) Why is company important for thoroughbred horses?

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d) Why is it important for equine dentists to take care of thoroughbred horses' teeth?

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## Thoroughbred horse helpers

Scan the QR codes or click on the links to learn about three people who help to meet the needs of horses.



**Luci the pony and Paul  
the horse dentist (3:23)**

[https://www.youtube.com/  
watch?v=xQtTpK3YsHO](https://www.youtube.com/watch?v=xQtTpK3YsHO)



**A day in the life of a farrier  
ABC Australia (4:58)**

[https://www.youtube.com/  
watch?v=EVcXHoqly68](https://www.youtube.com/watch?v=EVcXHoqly68)



**#LoveTheHorse  
- The Strapper (2:20)**

[https://www.youtube.com/  
watch?v=q4488WXjw-0&t=](https://www.youtube.com/watch?v=q4488WXjw-0&t=)



# Career tags

e) Follow the instructions to create a thoroughbred industry career tag.

1. Use the careers videos and the information on pages 4-5 of the fact sheet to choose a career for your lanyard.
2. Copy the career name on the front side of the template.
3. List a sentence or some describing words about the role of this career on the back side of the template.
4. Draw or print and paste an image of the career on the front of the career tag.
5. Cut around the outside of the two career tags.
6. Use glue to stick both sides of the template together so that the words and pictures are facing outwards.
7. Use a hole punch to make a hole through the circle.
8. Thread a 60 cm piece of string/ribbon through the hole and tie the ends to create a lanyard for the career tag.

## Example

Front



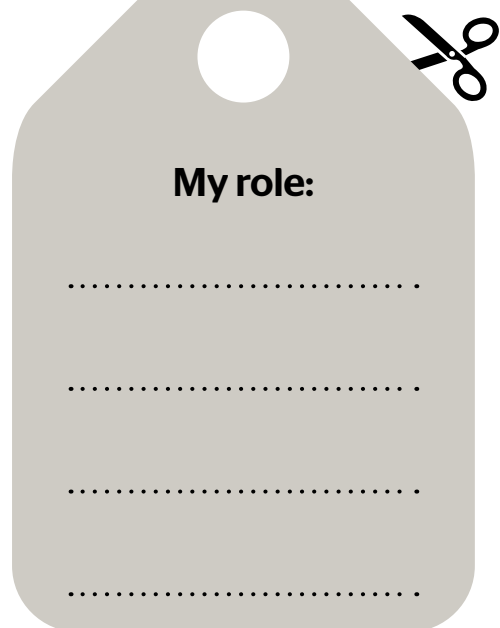
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Front



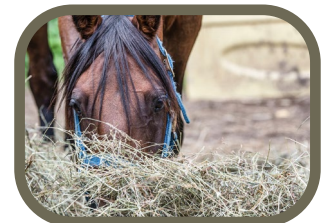
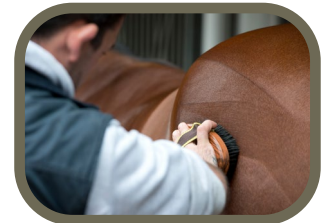
Back



# A day in the life of a training racehorse

Read the information to learn about a day in the life of a training racehorse.

- 1 Morning feeding and health check**  
Horses are checked for health issues and given breakfast, with feed portions based on their training needs.
- 2 Morning training**  
Horses warm up on a walking machine, then move to the racetrack for training. Some use a saltwater treadmill or aqua walker.
- 3 Break time**  
Horses are fed, watered, and returned to their stables to rest after their workout. They are also checked for injuries or illness.
- 4 Social time**  
Horses spend time in the paddock with other horses to help them feel calm and safe.
- 5 Afternoon training or walk**  
Horses either do gentle training or walk around the paddock. Some practice racing skills like starting gate entry and exit.
- 6 Grooming and health check**  
Horses are groomed daily to keep their coats clean and allow each horse and the groom working with them to form a bond. An equine vet checks and treats any sick or injured horses.
- 7 Evening feeding and rest**  
Horses are fed and given fresh water before settling into their stables for the night.



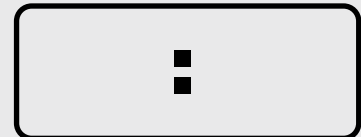
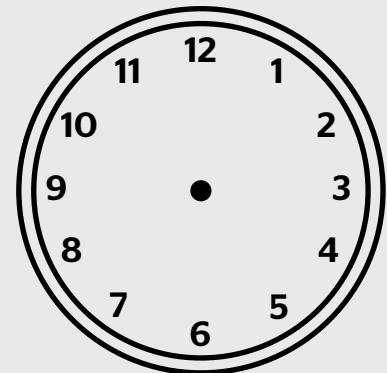
# A day in the life of a training racehorse

## Maths challenge

f) Record the answers to each of the maths questions in the spaces below. Show your working out for each question.

**1** A stable hand has 7 kilograms (kg) of hay and gets 5 more. How many kilograms (kg) of hay does the stable hand have now?

**2** The horses' morning feeding and health check starts at 6:00 o'clock in the morning (am) show this time on the digital and analogue clocks below.



**3** A horse drinks 8 litres (L) of water from its bucket, which had 15 litres (L). How many litres of water are left in the bucket?

**4** Each horse in the stable gets 3 carrots. If there are 5 horses, how many carrots are needed in total?

**5** A farrier takes 16 horse shoes to visit a stable. They use 8 shoes on the horses. How many do they have left?

**Challenge:** How many horses did they shoe if they used 8 shoes in total?

# A day in the life of a training racehorse

## Maths challenge

g) Record the answers to each of the maths questions in the spaces below. Show your working out for each question.

**1** Each thoroughbred horse drinks approximately 40 litres (L) of water in a day. If there are 6 horses, how much water do they need in total each day?

**2** The horses' morning feeding and health check starts at 6:00 am and lasts for 30 minutes. After that, the morning training begins. If the morning training session lasts for 1 hour, at what time does the morning training end?

**3** A stable hand has 60 minutes to groom 4 horses. If the time is shared equally, how many minutes does the stable hand spend grooming each horse?

**4** A farrier brings 36 horse shoes to visit a stable. How many horses can they shoe during this visit?

*Hint: How many shoes does each horse need?*

**5** A stable needs to buy feed for their horses. Each bag of roughage costs \$7. If they buy 4 bags, how much do they spend in total?

**Challenge:** Bags of grain costs \$30. If they also purchase 4 bags of grain, how much do they spend in total?

## Learning Areas | Australian Curriculum Content:

### Science

Compare characteristics of living and non-living things and examine the differences between the life cycles of plants and animals (AC9S3U01)

Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (AC9S1U01)

### Mathematics

Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies (AC9M1N04)

Add and subtract one- and two-digit numbers, representing problems using number sentences, and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04)

Use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9M1N06)

Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies (AC9M2N05)

Recognise and read the time represented on an analog clock to the hour, half-hour and quarter-hour (AC9M2M04)

Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events (AC9M3M03)

Solve problems involving the duration of time including situations involving “am” and “pm” and conversions between units of time (AC9M4M03)

Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies (AC9M3N04)

Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder (AC9M4N06)

### Design and Technologies

Identify how familiar products, services and environments are designed and produced by people to meet personal or local community needs and sustainability (AC9TDE2K01)

Examine design and technologies occupations and factors including sustainability that impact on the design of products, services and environments to meet community needs (AC9TDE4K01)

### English

Use comprehension strategies such as visualising, predicting, connecting, summarising and questioning when listening, viewing and reading to build literal and inferred meaning by drawing on vocabulary and growing knowledge of context and text structures (AC9E1LY05)

Read texts with phrasing and fluency, using phonic and word knowledge, and monitoring meaning by re-reading and self-correcting (AC9E2LY04)

Use comprehension strategies such as visualising, predicting, connecting, summarising, monitoring and questioning to build literal and inferred meaning (AC9E2LY05)

Read a range of texts using phonic, semantic and grammatical knowledge to read accurately and fluently, re-reading and self-correcting when required (AC9E3LY04)

Use comprehension strategies when listening and viewing to build literal and inferred meaning, and begin to evaluate texts by drawing on a growing knowledge of context, text structures and language features (AC9E3LY05)

Read different types of texts, integrating phonic, semantic and grammatical knowledge to read accurately and fluently, re-reading and self-correcting when needed (AC9E4LY04)

Use comprehension strategies such as visualising, predicting, connecting, summarising, monitoring and questioning to build literal and inferred meaning, to expand topic knowledge and ideas, and evaluate texts (AC9E4LY05)

## ATTRIBUTION, CREDIT & SHARING

This resource was produced by Primary Industries Education Foundation Australia (PIEFA) in collaboration with Thoroughbred Breeders Australia. Primary Industries Education Foundation Australia's resources support and facilitate effective teaching and learning about Australia's food and fibre industries. We are grateful for the support of our industry and member organisations for assisting in our research efforts and providing industry-specific information and imagery to benefit the development and accuracy of this educational resource.

While reasonable efforts have been made to ensure that the contents of this educational resource are factually correct, PIEFA and Thoroughbred Breeders Australia do not accept responsibility for the accuracy or completeness of the contents and shall not be liable for any loss or damage that may be occasioned directly or indirectly from using, or reliance on, the contents of this educational resource.

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