**Using the Dairy Quiz.**

A quiz is one way to introduce information and begin a learning process or series of experiences for children and young people. It can help transfer some basic factual information over in a fun way with some competitive element should you wish. Play in teams or in pairs, or present to the whole class, taking everyone along at the same pace.

Here are some further notes to help you use the quiz, by presenting further information or activity.

Question 1

How many pints of milk are sold in the UK each year? (Answer =5 billion pints)

To understand these vast amounts can be quite conceptually difficult for children to grasp; It is worth demonstrating by showing them a container or jug that holds a litre and showing a 2.272l milk (‘4 pint’) container with which they might be familiar. (You can also get a 2l milk container from supermarkets nowadays. Can the children spot the subtle size difference? Which is bigger? By how much (0.272l) this is approximately 0.25 (quarter) lots of nice maths work on capacity and on the cheapest way to buy milk).

Do the children know how many zeros make a million?

How do we get to a billion? If 1 million is 1 000 000. There are a thousand million to make a billion so that’s 1 000 000 000. (1 with 9 zeros).

Question 2

What is the average herd size of a dairy farm in the UK? (Answer = 115)

Average herd size. Discussion of what the word ‘average’ means. Use some information to develop things further. For example, present the herd size chart for the 10 farms (below – just edit as necessary).

Can the children say which farms have Above Average (aa), Average (a) and Below Average (ba) numbers of cows? They could group and present data in graphical forms.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Farm | Lower Farm | Bright Farm | Walton Farm | Stoney Farm | Hill Farm | Valley Farm | Pool Farm | Green Farm | Oak Farm |
| Number of cows | 520 | 255 | 92 | 45 | 130 | 850 | 60 | 320 | 200 |
|  | aa | aa | ba | ba | aa | aa | ba | aa | aa |
| Farm Litres per day | 14560 | 5610 | 2576 | 900 | 3640 | 23800 | 2160 | 14720 | 8000 |
|  | a | ba | a | ba | a | a | aa | aa | aa |

You could devise some questions as your group require.

e.g.

How many farms are above average numbers of cows?

How many are below average number of cows?

How many farms are above average production?

How many are below average production?

How much more milk is produced each day by Hill farm compared with Pool Farm?

If Green Farm were producing the UK average per cow (28l), how much milk would they get from all their cows in total in a day?

 Or ask children to devise questions to challenge each other.

Question 3

Before having a baby cow(calf) how long is mum pregnant for? (Answer = 9 months)

Explain what gestation period is. Can you match the gestation for other mammals?

|  |  |  |
| --- | --- | --- |
| Animal (Mammal) | Days Gestation\* | Put it another way... |
| Cow  | 283 | 40.4 weeks |
| Elephant | 645 | 22 months |
| Human  | 280 | 40 weeks |
| Sheep  | 147 | 21 weeks |
| Mouse  | 21 | 3 weeks |
| Dog  | 61 | 8.7 weeks |
| Cat  | 63 | 9 weeks |
| Rabbit  | 31 | 4.4 weeks |
| Pig  | 114 | 3 months, 3 weeks, 3 days |

*(\*approx. values)*

Question 4

How many litres of milk can a cow produce a day in a milking herd? (Answer =28 litres)

Average amount is 28 litres. Think about this figure. How many 2l containers per cow is that? Have a range of containers from 20ml upwards to 5l. Us this opportunity to learn about capacity.

Question 5

Which of these is not a dairy breed of cow? (Answer = Belgian Blue)

Refer to a breed chart. Compare pictures of Jersey, Fresian and Belgian Blue. How are bodies similar? How different? See if you can find copies of charts to show young people.

Question 6

How many people are employed on dairy farms in the UK? (Answer = 50 000)

For the whole agricultural sector, it is 477 000 (growing fruits, vegetables and flowers, raising animals for meat, dairy or eggs, or growing crops such as wheat). So, dairying with 50 000 is quite a large part of this. The value of milk and milk products to the UK is worth £4.49 billion pounds per year.

Question 7

How many dairy cows are there in the UK? (Answer = Just under 4 million)

There are 12 million children in the England so that’s 1 cow for every 3 children. In your class of 30 children that means there would be about 10 cows!

Question 8

How many hours a day do cows like to lie down? (Answer = 14 hours)

14 hours a day is a long time. How many hours in a full day? Look at young peoples sleep/rest patterns. How many hours sleep do they get on average per week. Who should be getting more rest? Research about the effects of lack of sleep and how this can affect people.

Question 9

What do most dairy cows eat in winter? (Answer = Silage)

There is widespread use of supplementary feeds as well as beets and potatoes. A lot of farmers will grow their own barley oats and wheat and blend mixes for themselves. Pelleted feeds can be formulated and be sustainably fed to cows, from maize germ to soya husks, from distilled wheats from the bioethanol industry (Following the fermentation of wheat and the distillation of ethanol). Rapeseed extract is also used whereby whole rapeseed is pre-cleaned, dried, flaked, cooked and pressed to remove the majority of oil, followed by a solvent extraction to remove most of the residual oil. The solvent is then removed, leaving a friable high protein meal.

Question 10

What is the average liquid milk consumption in the UK each week per person? (Answer = About 3.5 pints)

Some nice conversions from litres to pints.

There are 1 pint is 0.568 litres. One litre is 1.76 pints.

You could research some other commonly used imperial to metric units (e.g. pints, gallons, inches, feet, yards, ounces, pounds, stone)