

**Productive task** :

Estimation of any goat age using teeth estimation method by visiting, village AH clinic or weekly market

and/or

Estimation of any cow age using horn estimation method by visiting, village AH clinic or weekly market

**Concept** :

* Learner will able to determine the age of animal with Teeth.
* Learner will able to determine the age of animal with of horn.

**Tools** :

**Class-Age Group** : **8th Pass and above.**

*Open Education Resource*

**Estimating animal age from their teeth & horns**

* *Mahesh Lade*

**Concept Map (Image):**

**Introduction:**

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**Nothing special, this season all the farm work has been completed in time. What’s about you?**

**Ram ,Ram Ganpatrao, What’s going on?**

**Actually, this year was very tire some. I have only one ox, so I will not complete my farm work in time. So I have decided to purchase one more ox & also purchase one cow for milk for my family. By this I will also get good natural manure for my field.**

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**- Great, It’s a good thinking. Because now a day’s, nobody is ready to keep animals. Once upon a time, people who had many animals, they were said rich persons or in Marathi it says as  *pashu-dhan’* or *‘luxmi’* but what kind of ox do you want to take?**

** **

**Ok, we will go to market to buy it**

**Common, Who can do the farm works such as –plugging, sowing ,riding a cart etc.& he should be young.**

** **

**Normally we farmers, in India don’t keep pedigree record of our farm animal so we have to use other method to identify age of animal like age estimation from teeth’s. This method is taught to me by our village veterinary doctor. Let’s go to market I will show you, how to use it.**

**But, how to identify, good ox as per age. Because I heard that in weekly bazaar there is a risk of being cheated by traders , sellers on age of animal.**

**It’s very easy, we can identify it’s age with help of teeth & horns**

** **

**But I don’t know how to indentify age**

By end of this story, Ganapatrao actually went in to market with his farmer friend and learnt how to identify age of animal practically by performing task of measuring teeth’s and purchased healthy ox with good price.

But to learn it in class let’s see following PPT presentation and then we also have to visit nearest veterinary clinic or weekly market where animal normally trades and with the help of expert we will perform this task. So let’s study following PPT & videos first -

Download PPT : Determination age of animal with help of Teeth PPT 1.pptx

Watch Video – [Number of teeth’s in bullock](https://www.youtube.com/watch?v=6Xhb2zyiAbE)

So we all know how to estimate age of an animal from their teeth’s. Is there any relation in age of animal (including human) Vs number of teeth? Can we estimate age of an human beings by measuring number teeth’s? To know answer of these questions let’s see following video-

<http://www.youtube.com/watch?v=co4kSPqRi9o>

<http://www.youtube.com/watch?v=mlhkecLd9Wo>

**productive work task:**

1. Students will estimate age of 5 goats from any nearby farm / farmer field and convey results of age estimation with sketch of teeth skeleton as shown in PPT. (Record your observation as per table given below)-

#### Observations

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Particulars. | Record  Number and wear of teeth | | | | | Approximate age of the animal | | | | |
| Number of Animal | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| Number of temporary incisors present. |  |  |  |  |  |  |  |  |  |  |
| Number of permanent incisors present. |  |  |  |  |  |  |  |  |  |  |
| Extent of wear of different incisor teeth |  |  |  |  |  |  |  |  |  |  |

1. **Group discussion – Importance of age estimation in pet animals.**

**HPNPDL session:**

After every activity or work exercise, all class will assemble together and brainstorm various questions. They will generate list of questions - What , Why , How, When , Where ? Attempt should be made that every student will ask min 2 questions.

The questions will be recorded. Teacher’s may able to answer some of them. It is not necessary to answer every questions but such questions must be recorded as ‘HPNPDL’ { Hame pata nahi par dhudh lenge }

**Let’s find out answer for following questions-**

**What is wisdom tooth in Human beings?**

**What is difference between structures of teeth’s in ruminant (cow, buffalo) and non-ruminant animals?**

**For more information on teeth structure of ruminant students can refer following video link-**

[**http://www.youtube.com/watch?v=0JdgnCDU0kI**](http://www.youtube.com/watch?v=0JdgnCDU0kI)

Download: [**Estimation of Age of Animal on Basis of Dentition.docx**](Estimation%20of%20Age%20of%20Animal%20on%20Basis%20of%20Dentition.docx)

**Task 2:**

So now students you know how to estimate age of pet animals from their teeth’s, buts it’s not the only way of finding out age. Age of animals, can be estimated by their horn. The method mostly used in goat, sheep, cow etc. So let’s see how to estimate age from horn of an animal -

In case of cows (dairy animals), following chart can be used for estimation of age –

|  |  |  |
| --- | --- | --- |
| **Sr.No** | **Age** | **Number of rings\*** |
| **1** | **Ten or twelve months** | **First ring appears on horn.** |
| **2** | **Twenty months to twenty two months** | **Second ring appears on horn.** |
| **3** | **Thirty to thirty two months** | **Third ring appears on horn.** |
| **4** | **Forty to forty two months** | **Forth ring appears on horn.** |
| **5** | **Forty to forty sixty months** | **Fifth ring appears on horn and so on.** |

\*Note –

* At fifth year the first three rings are indistinguishable and at the eight years all the rings.
* If you are not able to determine the age of animal with the help of horns or else horns are broken or sharpened by blade then you have to determine the age with the help of teeth only …!
* This method is not as accurate as teeth method of age estimation.
* Precaution to be taken while handling animal –

1. Take care of your hand- while handling animal for counting the teeth and the horn.
2. Don’t make noise.
3. While handling strange animal take help of the owner, otherwise it may harm you. Such as it will hit you by its legs or it may injure you by its horns.
4. Rope should be perfect while handling the animals.

For more details on age estimation from horn rings please follow following PPT link –

Download [**Determination age of animal with help of horns PPT2.pptx**](Determination%20age%20of%20animal%20with%20help%20of%20horns%20PPT2.pptx)

**After completion of productive work task:**

1. Visit nearest veterinary clinic or weekly animal fair and record age of at least 5 animals from their horns. Record your observation in following table format-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr No** | **Type of anima (Cow , Bullock)** | **Number of rings on horns** | **Age estimated** | **Market price** |
|  |  |  |  |  |

1. **Discuses in group of 5-6 students – Relation of animal age to their productivity.**

**HPNPDL session:**

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* **What is pedigree record in pet animals, how it is maintained?**
* **What are the other methods of age estimation in cows and goats?**