



T2..WEEK 2 :

# **UNIT 4:- Living Things Grow and Reproduce**

## **Lesson 2 : What is a Dichotomous Key?**

### **5<sup>th</sup> Grade Science**

**MS NOURA AND MS NAAZ.**



## Learning Objective:

-Students will classify objects based on characteristics they have or lack.

## Success Criteria:-

- - Students will be able to classify objects based on characteristics they have or lack



Find the wolf among the sheep





## What is a **Classification Key**?

- Classification keys are used to identify an unknown biological specimen.
- One of the most frequently used types of keys is the “**Dichotomous Key**”
- What does “Dichotomous” mean?





# Dichotomous



“Di”  
(two)

“Chotomy”  
(choices)



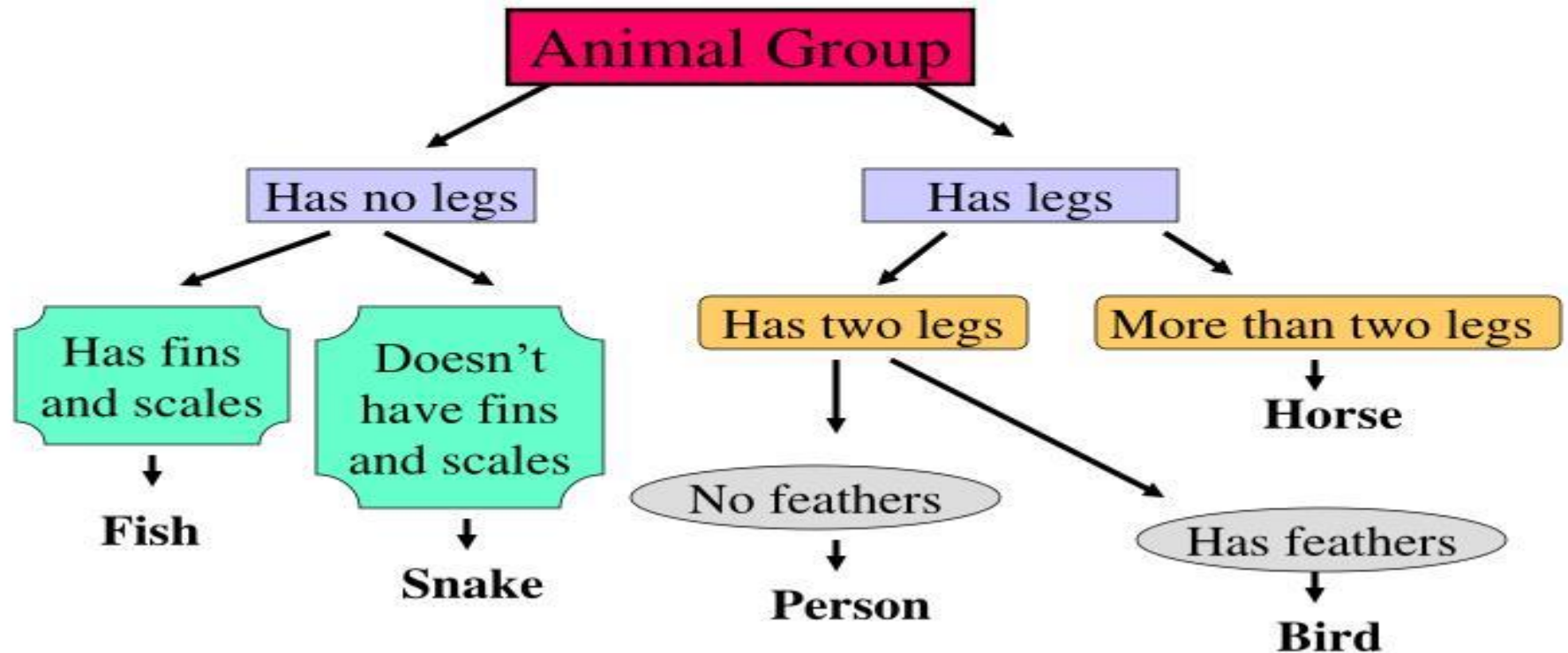
A dichotomous key always presents you with two choices

Two choices of what?

The choices are just different **characteristics**, or features, of the specimen. For example, is the shape of a leaf tip **pointed**  or **round**? 

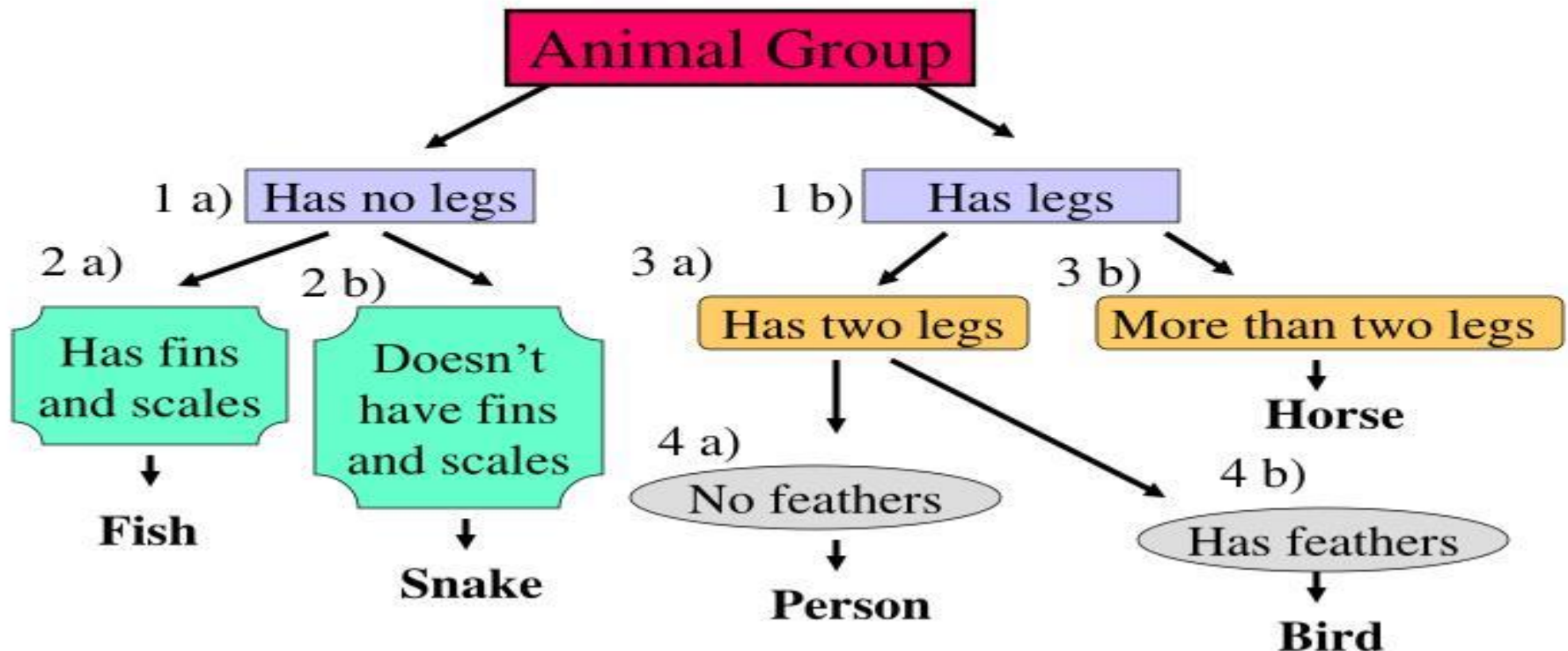


For example, for the animal group - *person*, *fish*, *horse*, *bird*, and *snake* - a dichotomous spider key might look like this:





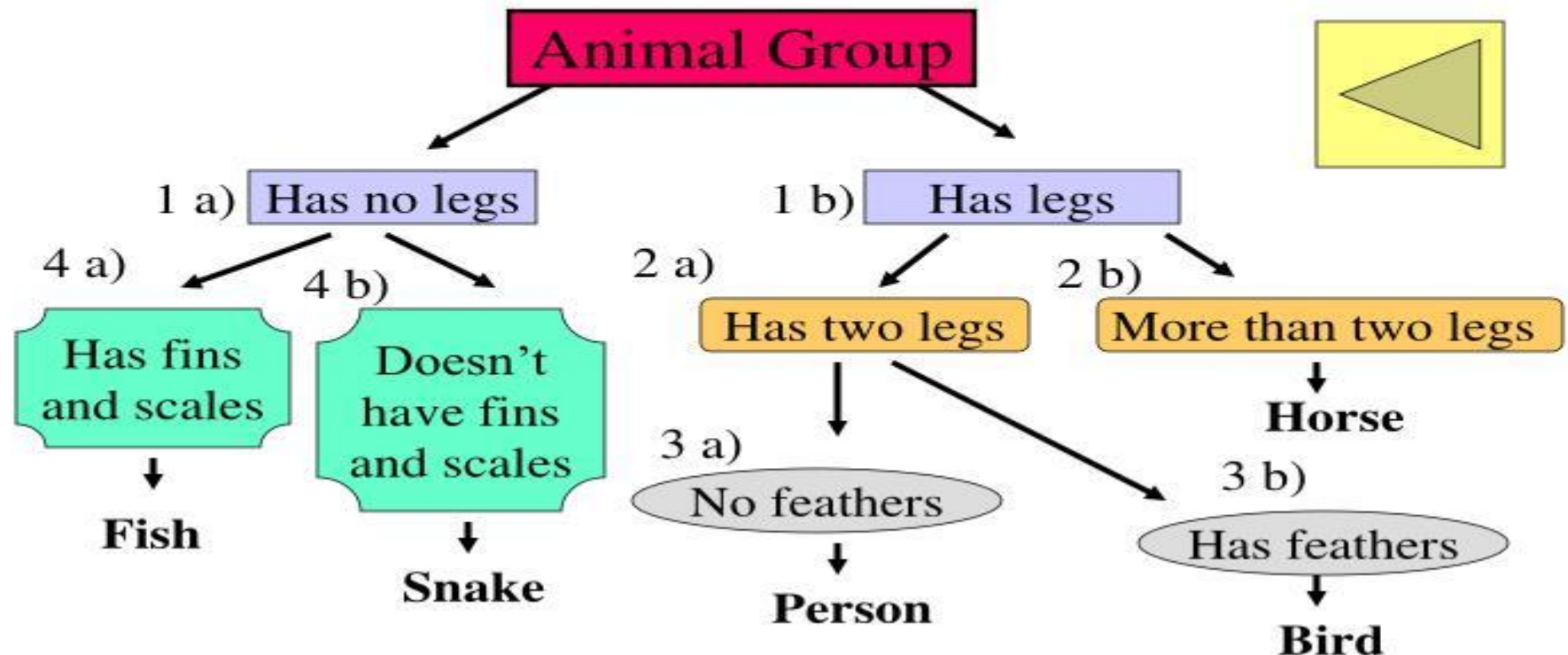
Once you have created the spider key, you must number the choices - each group of two has the same number, and either an a) or a b), for example:







The first set of choices is always 1a) and b), but notice that you can number differently from there. Compare the numbering on this slide to the previous slide. Both are equally correct.





Now that you have created a numbered spider key, rewrite the key by arranging the choices in a list format so that they fit nicely one below the other on the page. The list key puts the numbers in sequential order, and gives “**go to**” directions or **identifications** after each choice:

1a) Has no legs .....go to 2

1b) Has legs.....go to 3

2a) Has fins and scales.....Fish

2b) Doesn't have fins and scales..... Snake

3a) Has two legs.....go to 4

3b) More than two legs.....Horse

... and so on



So that's it!

Your teacher will now give you the materials to make a dichotomous key of your own.

**Good Luck!**









## POSSIBLE “DERIVED CHARACTERS”

- Hammer-like head
- All made of one material
  - Is it hinged
- Has a sharp edge
- Has holes



Hammer-like head



NO Hammer-like head



Made of all Wood

Not made of all Wood



Ends of head are different

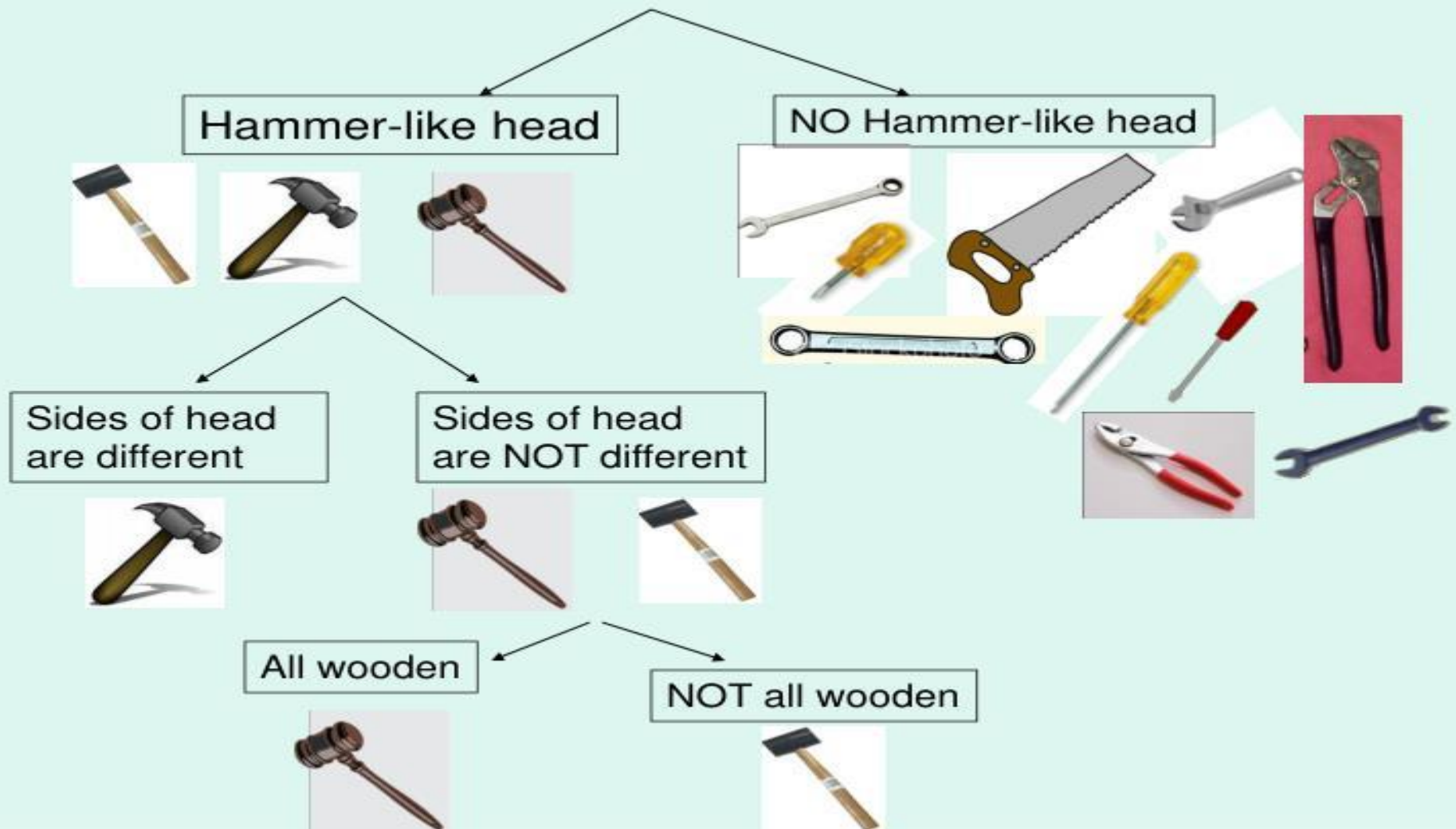
Ends of head NOT different



1. a Hammer - like head ..... Go to 2  
b No hammer – like Head ..... ?
2. a Made of all wood ..... gavel  
b Not made of all wood ..... Go to 3
3. a End of head are different ..... ?  
b Ends of head are not different .....?



1. a Hammer - like head ..... Go to 2  
b No hammer – like Head ..... ?
2. a Made of all wood ..... gavel  
b Not made of all wood ..... Go to 3
3. a End of head are different ..... hammer  
b Ends of head are not different .....mallet



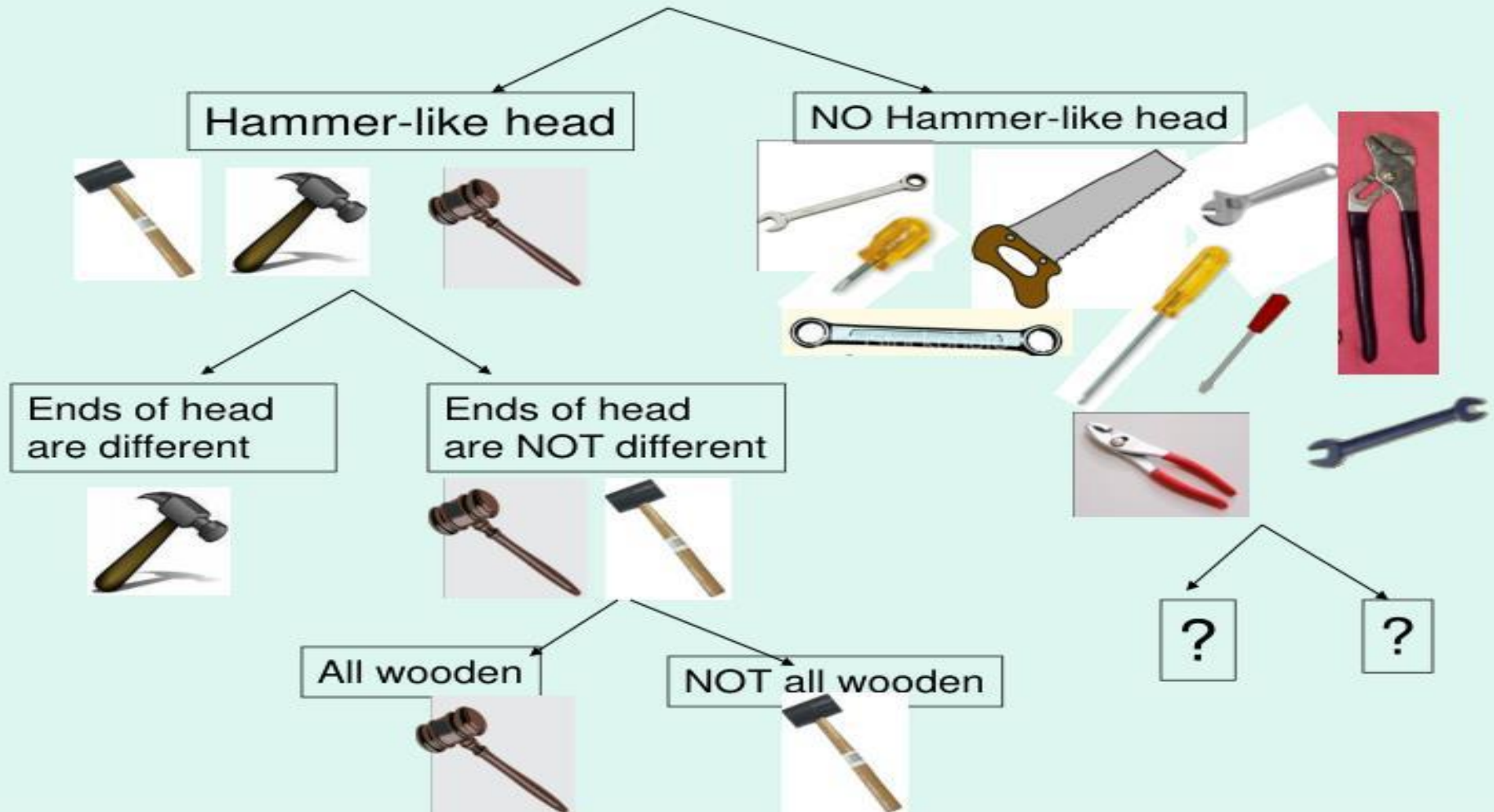




1. a Hammer - like head ..... Go to 2  
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2. a Made of all wood ..... gavel  
b Not made of all wood ..... Go to 3
3. a End of head are different ..... hammer  
b Ends of head are not different .....mallett
4. a ?  
b ?



# Finish your dichotomous key



# PLENARY



## PLENARY EXIT SLIPS



*'I don't understand  
this yet.'*



*'I think I understand,  
but could not explain it  
to someone else.'*



*'I understand  
this well and could  
explain it to a friend.'* \_\_\_\_\_

