

S.E.A. AQUARIUM EDUCATOR RESOURCES

SECONDARY SCHOOL
Dichotomous Key

What is a Dichotomous Key?

- A tool used to identify organisms based on observable characteristics
- “Dichotomous” means divided into 2 parts
 - Always presents 2 distinct choices at each step
- Useful with limited background knowledge of species and lack of access to other identification technologies



Using a Dichotomous Key

Invertebrates

Does it have a hard shell?

Yes

No

Does it have a pair of claws?

Does it have tentacles?

Yes

No

Yes

No

Is its body transparent?

Yes

No



Crab



Nautilus



Sea Jelly



Octopus



Sea Star



Complete the Dichotomous Key

You will need to:

- Refer to your *Complete the Dichotomous Key* worksheet
- Gather in groups of 4
- Use the following 5 animals (in next slide) to complete the dichotomous key
- Discuss with your group mates and complete your worksheets!



Complete the Dichotomous Key

Using these 5 animals, complete the partially-constructed dichotomous key in your worksheet.



Sea Jelly



Unicornfish



Surgeonfish

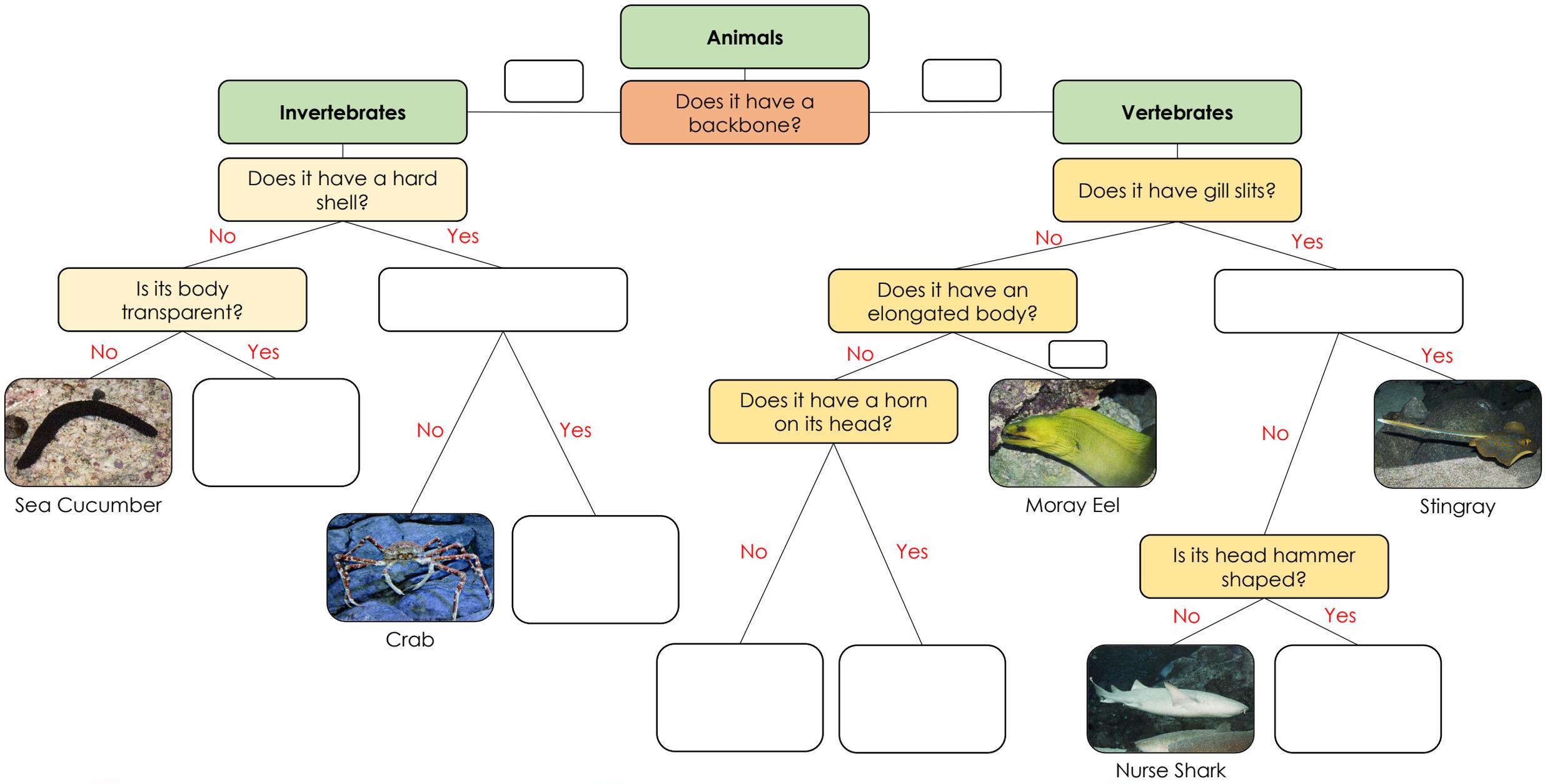


Lobster



Hammerhead Shark

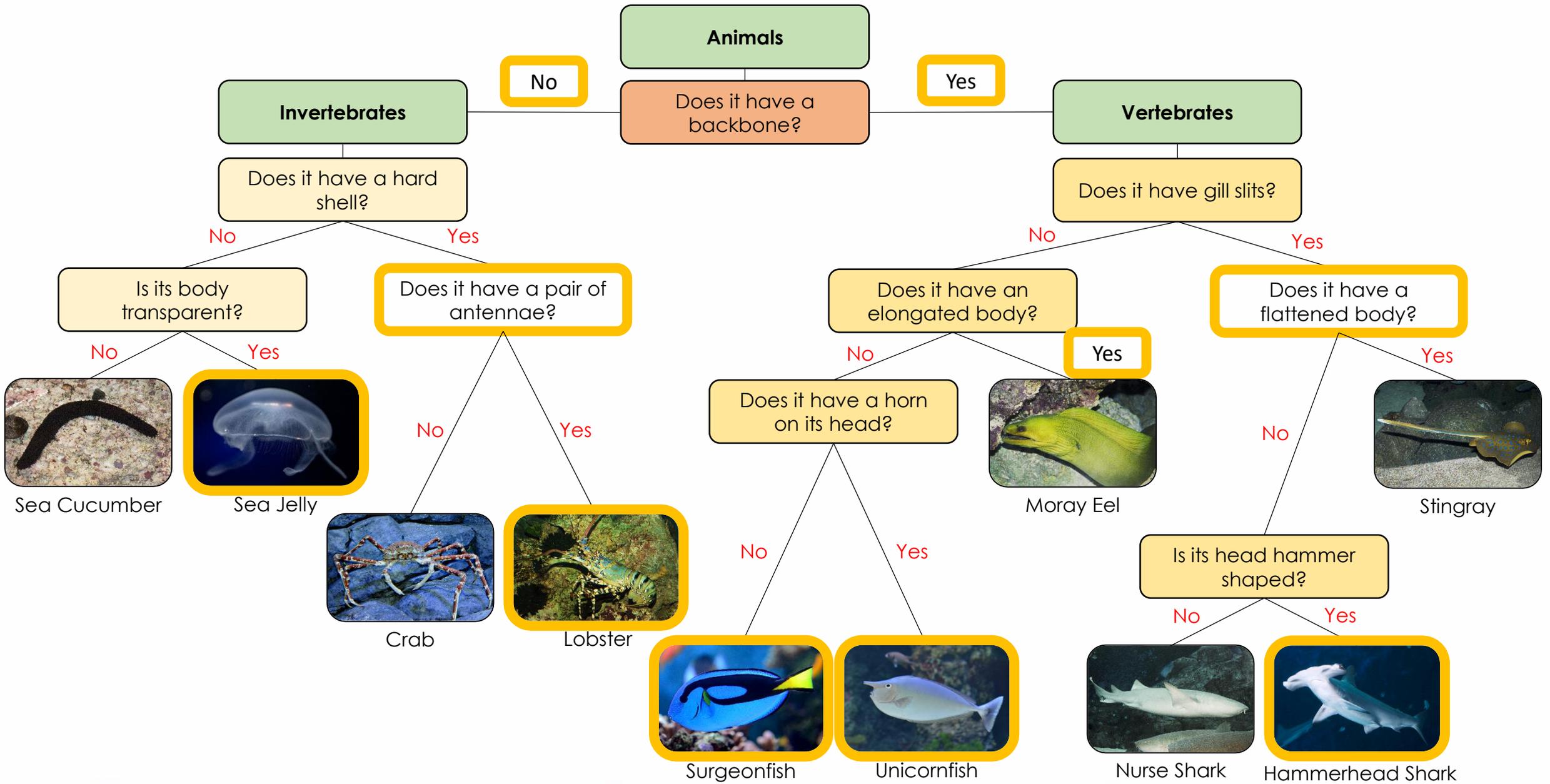




Completed your dichotomous key?

Let's check out some suggested answers!





Construct Your Own Dichotomous Key

A friendly alien from our neighbouring planet will be visiting Earth for the first time!

As such, students are enlisted to help create a dichotomous key with 15 different marine animals for our alien friend to easily identify them during his visit here!



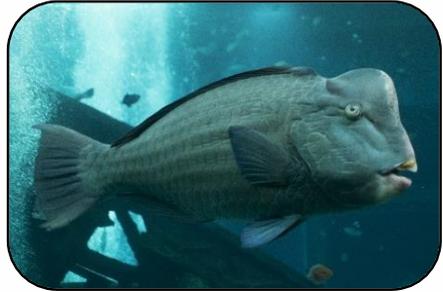
Construct Your Own Dichotomous Key

You will need to:

- Gather in groups of 4
- Collect flipchart papers and markers from your teacher
- Construct a dichotomous key with your group mates using all 15 animals shown in the next slide



Construct your dichotomous key using these animals!



Bumphead Parrotfish



Sand Tiger Shark



Manta Ray



Eagle Ray



Seahorse



Coral



Sea Anemone



Lionfish



Clownfish



Sea Star



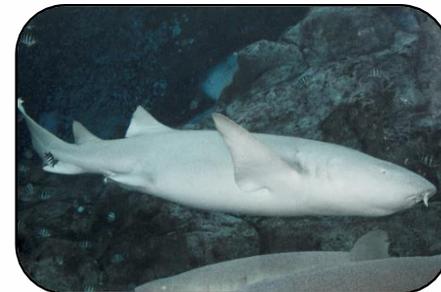
Sea Dragon



Grouper



Stingray



Nurse Shark



Poison Arrow Frog



Construct Your Own Dichotomous Key

Tips:

- List and organise observable characteristics, starting with general characteristics
- Use more specific questions and traits as you progress further
- At each branching point, use questions that only lead to a **Yes** or **No**
- Focus on one characteristic at a time



Constructed your dichotomous key?

Exchange your dichotomous key with
your neighbouring group and test it out!

