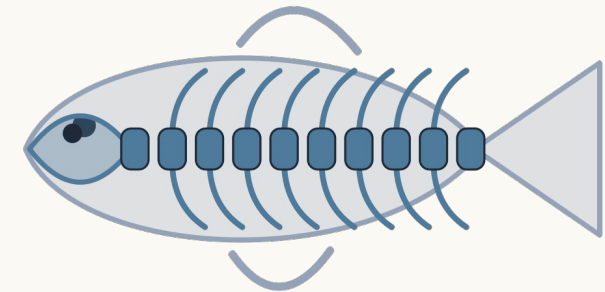
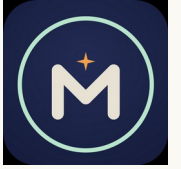


Backbones and no backbones

One body clue. Two animal groups.



I can use evidence to decide whether an animal has a backbone.

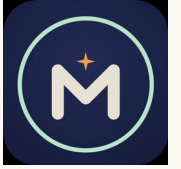


Start with your own idea

Name or point to an animal.

Do you think it has a backbone?

Keep your first idea. We will check evidence.

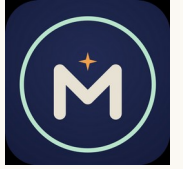


Three things we will do

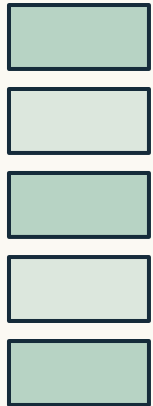
Find a backbone in a model.

Sort animals using body evidence.

Explain one decision using because.

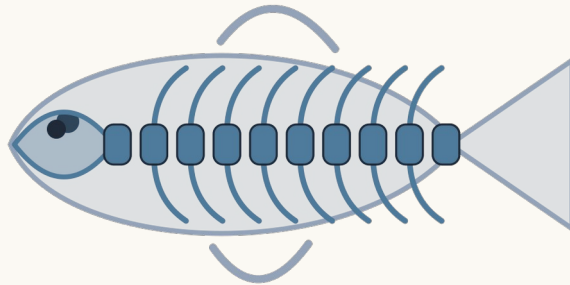


Look for bones inside



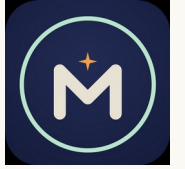
small bones

simplified backbone



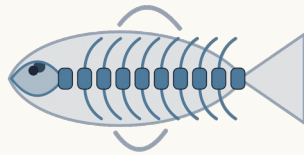
A backbone is a connected series of small bones down the back.

An animal with a backbone is a vertebrate.



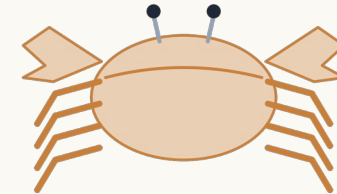
A hard outside is different

FISH

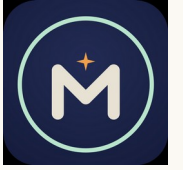


Bones inside the body.
A backbone inside.
Vertebrate.

CRAB



Hard case outside the body.
No backbone.
Invertebrate.

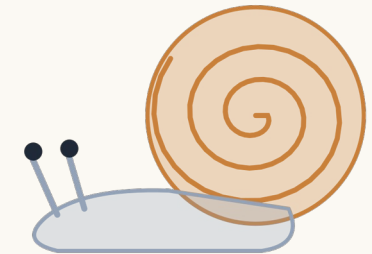


Decide before the explanation

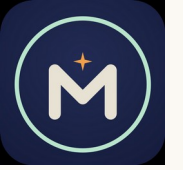
Fish: bones inside include a backbone.

Snail: a shell, but no backbone.

Frog: bones inside include a backbone.



Choose: vertebrate or invertebrate.



Try the rule again

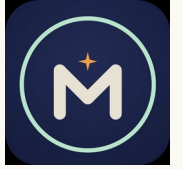
Mouse: an internal backbone.

Crab: a hard outside; no backbone.

Earthworm: fluid support; no backbone.



Which body clue decides each group?



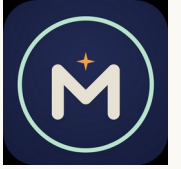
Different outsides, same test

THE ANIMALS

Fish and frog
Bird and lizard
Very different outsides.

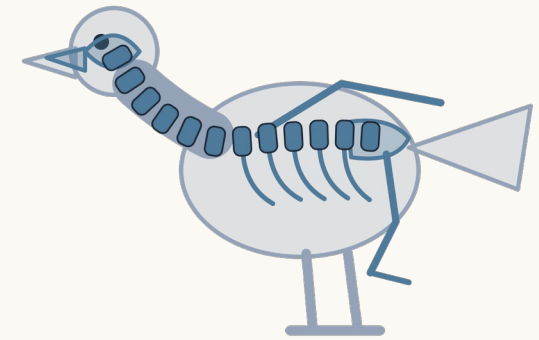
THE BODY EVIDENCE

All have an internal backbone.
All are vertebrates.
Fur and legs are not the test.

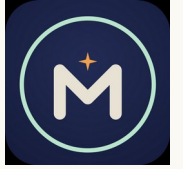


Use because to show your reason

The robin is a vertebrate because its body has an internal backbone.



Name the animal. Name the group. Give the body evidence.



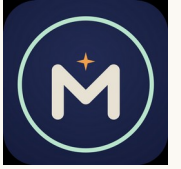
Sort the evidence cards

ANIMAL CARDS

Bat
Crab
Snake
Jellyfish

IS THIS A RELIABLE TEST?

It has a backbone inside.
It is furry.
It is small.



Check one choice and keep it

Choose one animal card.

Point to or say the body evidence.

Keep or change your first choice.

Label and save your work for Wednesday.