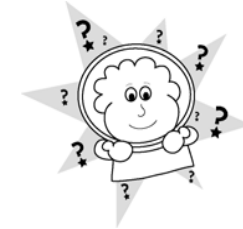




CHECK IT OUT



WHAT TO DO



WHAT TO ASK...

1

Microgravity affects the bones of astronauts by making them weaker.

Take 2 Styrofoam cups and a slightly sharpened pencil or pointy stick.

Poke about 5 holes, scattered randomly, in one of the cups, and about 25 holes in the other. Label the cup with 5 holes *Bone on Earth* and the cup with 25 holes *Bone in Space*.

What is the difference between the bone on Earth and the bone in space?

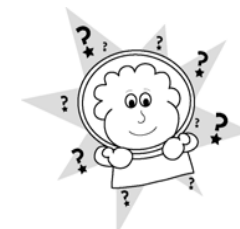
Why might bones in space become weaker than bones on Earth?



CHECK IT OUT



WHAT TO DO



WHAT TO ASK...

2

In microgravity *muscles* don't have to work as hard, and we don't need all those heavy bones to support our bodies! **When bones don't get exercise, they lose minerals and become weak.** To counteract this, astronauts exercise almost *two hours* each day and get a diet rich in calcium!

Stand each of the bones (cups) upright on a flat surface.

Place your hand, palm down, on top of the Earth bone. *Gently* press down and observe whether it is difficult or easy to crumple.

Now, do the same to the space bone and observe how difficult or easy *it* is to crumple.

Which bone crumpled more easily?

What do you think caused one bone to crumple more easily than the other?

What do you think happens to bones on Earth that don't exercise enough or get enough calcium?

What can you do to help prevent your bones from becoming like "space bones"?