



HOME DEMO NO. 33

## The Eggs Files

How did life, which first evolved in the oceans, find a way to survive on land? One word: eggs. Try this experiment to see how eggs gave land animals the edge they needed.

### *What you need:*

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1. An egg

### *What you do:*

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1. Take off all rings and hand jewelry.
2. Stand over a sink.
3. Hold the egg nestled in one hand.
4. Close your hand around the egg. Squeeze.
5. What do you notice?

### *What's happening?*

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The egg is hard to crush with just one hand!

So how come everybody acts like eggs are so easy to break? It's how much force you use over an area--pressure. When you squeeze an egg in your hand, the pressure you're applying gets spread out over the whole eggshell. You just can't make enough pressure with your hand to break it. But if you try to break your egg by tapping it on a counter edge, it cracks very easily. You hardly have to tap the egg at all. The pressure on the shell is bigger when the force you're applying is concentrated in one spot.

Eggs are strong because of their shape. Dinosaurs and other reptiles were well adapted to survive on land because their sturdy eggs protected them while they grew! So are their descendants--birds.