

Apple as a Model for percentage of Earth's surface that is capable of growing food

Cut into  $\frac{1}{4}$ ths:  $\frac{3}{4}$  represents part of Earth's surface covered by ocean water

$\frac{1}{4}$  represents part not covered by ocean water – on this small part of Earth's surface, humans live, work and grow their food.

Cut  $\frac{1}{4}$  in half: half of the Earth's surface not covered by ocean water has weather conditions so harsh that humans can't live or grow food there: north and south poles, deserts, big swamps

$\frac{1}{8}$ <sup>th</sup> represents part of Earth's surface where people can live and where conditions make growing food possible

Cut  $\frac{1}{8}$ <sup>th</sup> into four thin slices. Hold up all 4: People can live on this much of Earth's surface but cannot grow food because

- Some of this area has mountains and hills; the land is too steep to grow food, (set down one)
- Some of this area is already covered by our cities, houses and roads; no room for growing food (set down another piece)
- Some of this area does not have soil for growing food; it is too rocky (set down another piece)

This small piece of the whole apple shows how much of the Earth's surface is available for growing the food we need.

Peel the skin off this thin slice - The tiny peel represents the topsoil available to farmers in which to grow crops.