

Convection Checklist

Birds gain height without flapping their wings by finding thermals and moving upwards with the hot air. Thermals form above places on the ground that are hotter than their surroundings, such as power stations or towns.

Hot air rises because

- As the air is heated the particles gain more energy
- This causes them to move faster
- Because the particles are moving faster they need more room
- Thus the air expands and becomes less dense
- Because it is now less dense than the surrounding cooler air, it rises upwards.

Once the hot air has risen cooler air is drawn in to take its place. This causes a convection current as the air begins to circulate.

Remember – the particles do not expand, the gas expands because the particles move further apart from each other. The particles stay the same.