





## Photo Quiz

Have a guess at what it  
is that we are looking at?

Maybe it's:

- > a flower
- > a moth
- > vegetation
- > chocolate flakes
- > a cake decoration

Answer:

It's a Gypsum Desert Rose!

## Notes

### What do we know about gypsum?

- > Gypsum is a common mineral.
- > Gypsum plays a crucial role in soil formation since its quantity and location in the soil profile determines the type of the soil.
- > The structural versatility of this semi-soluble salt is demonstrated by the variety of ways its crystals can be arranged, sometimes producing intriguing and often beautiful structures.
- > Coastal and island sabkhas are one of the most important features of Abu Dhabi. The flat-lying featureless plains are characterised by surface salt deposits at least for part of the year. Sabkhas first formed around 4,000 years ago following a period when coastal sediments were eroded, primarily by wind, down to the level of the water table. Within the sediment, the fluids become increasingly saturated with calcium sulphate and the mineral gypsum starts to crystallise.

### Did you know?

- > The Desert Rose is a beautiful variety of gypsum that forms in the spaces between sand particles. It traps the loose sand in a unique flower-like crystal structure.
- > The Desert Rose usually forms spherical and disc-shaped crystals with a range of graceful curving lines. Very large desert roses are rare but have been discovered as large as a metre in diameter. This is only possible in the coarsest sand found below the water table.
- > Gypsum is used in a whole variety of surprising applications including:
  - > foot creams, shampoos and many other hair products
  - > used as a finish for walls and ceilings
  - > as a binder in fast-dry clay tennis courts
  - > impression plasters in dentistry