**Illustrations**

Fig. 1 Visitors in the walk-through installation *Synaptic passage* by artist Daniel Canogar. Courtesy of Studio Daniel Canogar.

Fig. 2 *After the Mona Lisa 8* by artist Devorah Sperber. Photo by Denis Finnin © American Museum of Natural History.

Fig. 3 Star tracing activity, to illustrate the shaping of procedural memory. Photo by Denis Finnin © American Museum of Natural History.

Fig. 4 View from the entrance to the section ‘Your Thinking Brain’. Photo by Roderick Mickens © American Museum of Natural History.

Fig. 5 Faces in the ‘Mirror Room’. Photo © Lesley Leslie-Spinks.

Fig. 6 Display of brains on jars in Mind Gap. Photo © Lesley Leslie-Spinks.

Fig. 7 View from the entrance to the ‘Forest Room’. Photo © Lesley Leslie-Spinks.

Fig. 8 Guided group of children walks along the light tubes in the ‘Lighting Room’. Photo © Lesley Leslie-Spinks.