

17 (a) Chromista are photosynthetic protists that live in water.

Chromista are different from other photosynthetic organisms because they contain the pigment chlorophyll *c*.

Chlorophyll *c* is not found in plants.

(i) Outline the importance of photosynthetic pigments in photosynthesis.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [4]

(ii) The wavelengths of light absorbed by chlorophyll *c* are different from those wavelengths absorbed by chlorophyll *a* and chlorophyll *b*.

Suggest why Chromista need pigments that are different from those of other photosynthetic organisms.

.....
.....
..... [1]

(b) Fig. 17.1 is a diagram of the chloroplast found in a Chromista cell.

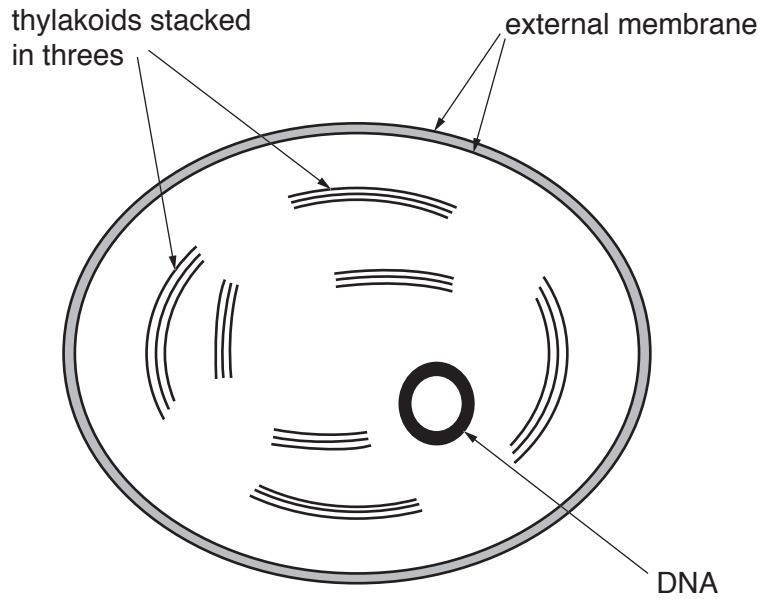


Fig. 17.1

Outline the structural differences between the Chromista chloroplast in Fig. 17.1 and the chloroplasts found in flowering plants.

.....

.....

.....

.....

.....

..... [2]

(c) Fig. 17.2 is a diagram of part of the plasma membrane of a Chromista cell.

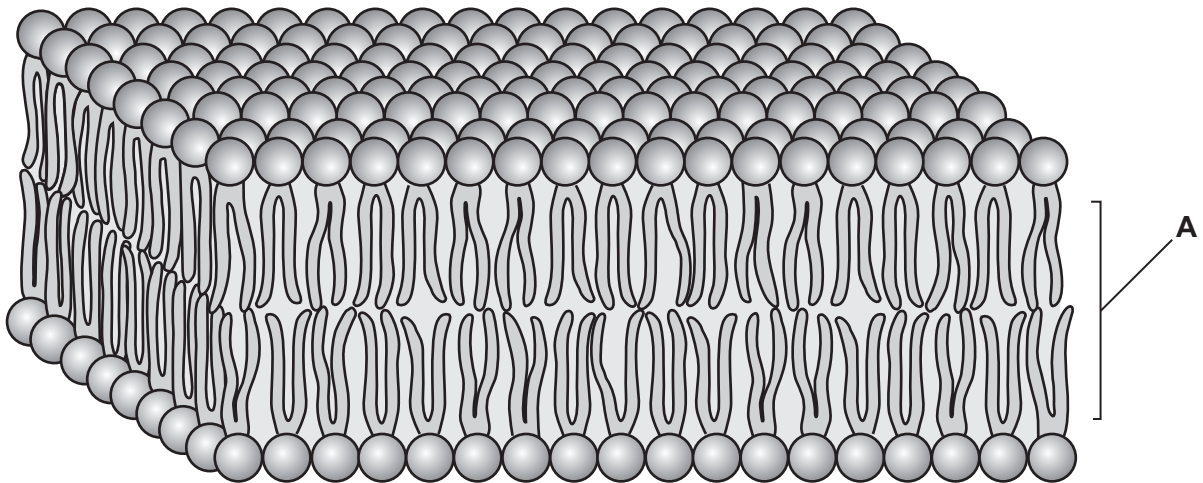


Fig. 17.2

(i) State and explain how **one** property of region **A** in Fig. 17.2 contributes to the stability of the plasma membrane.

.....
.....
.....
.....
..... [2]

(ii) There are differences between the plasma membrane and membranes within cells. Outline the role of membranes **within** cells.

.....
.....
.....
.....
.....
..... [2]