**Algae**

**1. Read the text.**

Algae, singular alga, members of a group of predominantly aquatic photosynthetic organisms of the kingdom [Protista](http://www.britannica.com/EBchecked/topic/480085/protist). They range in size from the tiny [flagellate](http://www.britannica.com/EBchecked/topic/209243/flagellate) Micromonas that is 1 micrometre in diameter to giant [kelps](http://www.britannica.com/EBchecked/topic/314499/kelp) that reach 60 metres in length. Algae provide much of Earth’s oxygen, they are the food base for almost all aquatic [life](http://www.britannica.com/EBchecked/topic/340003/life), they are a source of [crude oil](http://www.britannica.com/EBchecked/topic/144618/crude-oil), and they provide foods and pharmaceutical and industrial products for humans. The algae have many types of life cycles. Their photosynthetic pigments are more varied than those of [plants](http://www.britannica.com/EBchecked/topic/463192/plant), and their cells have features not found among plants and [animals](http://www.britannica.com/EBchecked/topic/25501/animal). Some groups of algae are ancient, whereas other groups appear to have evolved more recently. The [taxonomy](http://www.britannica.com/EBchecked/topic/584695/taxonomy) of algae is subject to rapid change because new information is constantly being discovered. The study of algae is termed [phycology](http://www.britannica.com/EBchecked/topic/15133/phycology), and one who studies algae is known as a phycologist.

In this article the algae are defined as [eukaryotic](http://www.britannica.com/EBchecked/topic/195150/eukaryote) (nucleus-bearing) organisms that photosynthesize but lack the specialized reproductive structures of plants, which always have multicellular reproductive structures that contain fertile gamete-producing cells surrounded by sterile cells. Algae lack true roots, stems, and leaves—features they share with the [plant](http://www.britannica.com/EBchecked/topic/463192/plant) division Bryophyta (e.g. [mosses](http://www.britannica.com/EBchecked/topic/393741/moss) and [liverworts](http://www.britannica.com/EBchecked/topic/344697/liverwort)).

Beginning in the 1830s, algae were classified into major groups based on colour (e.g. red, brown, and green). The colours are a reflection of different [chloroplast](http://www.britannica.com/EBchecked/topic/113761/chloroplast) pigments, such as [chlorophylls](http://www.britannica.com/EBchecked/topic/113725/chlorophyll),[carotenoids](http://www.britannica.com/EBchecked/topic/96623/carotenoid), and phycobiliproteins. Many more than three groups of pigments are recognized, and each class of algae shares a common set of [pigment](http://www.britannica.com/EBchecked/topic/460189/pigment) types distinct from those of all other groups.

The algae are not closely related in an evolutionary sense. Specific groups of algae share features with [protozoa](http://www.britannica.com/EBchecked/topic/480488/protozoan) and [fungi](http://www.britannica.com/EBchecked/topic/222357/fungus) that, without the presence of chloroplasts and [photosynthesis](http://www.britannica.com/EBchecked/topic/458172/photosynthesis) as delimiting features, make them difficult to distinguish from certain protozoa and fungi. Thus, some algae appear to have a closer evolutionary relationship with the protozoa or fungi than they do with other algae, and, conversely, some protozoa or fungi are more closely related to algae than to other protozoa or fungi.

Knowledge and use of algae are perhaps as old as humankind. [Seaweeds](http://www.britannica.com/EBchecked/topic/531166/seaweed) are still eaten by some coastal peoples, and algae are considered acceptable foods in many restaurants. Many slimy rocks are covered with algae such as [diatoms](http://www.britannica.com/EBchecked/topic/161817/diatom) or cyanophytes, and algae are the cause of green or golden sheens on pools and ponds. Algae are the base of the [food chain](http://www.britannica.com/EBchecked/topic/212636/food-chain) for all marine organisms since few other kinds of plants live in the oceans.

*Vocabulary*

[flagellate](http://www.britannica.com/EBchecked/topic/209243/flagellate) – жгутиковый

[liverworts](http://www.britannica.com/EBchecked/topic/344697/liverwort) – печёночник

**2. Answer the questions.**

1. How do algae range in size?

2. What do algae provide for people?

3. How is a person who studies algae called?

4. What features do algae share with mosses and liverworts?

5. What groups were algae classified into?

6. What do different colours of algae reflect?

7. Are all groups of algae closely related in an evolutionary sense?

8. What features help distinguish algae from certain protozoa and fungi?

**3. Say if the sentences are true or false.**

1. Algae are the food base for almost all aquatic [life](http://www.britannica.com/EBchecked/topic/340003/life), but they are hardly ever used by humans.

2. Their photosynthetic pigments are less varied than those of [plants](http://www.britannica.com/EBchecked/topic/463192/plant), and their cells have features not found among plants and [animals](http://www.britannica.com/EBchecked/topic/25501/animal).

3. The algae have several types of life cycles.

4. Algae are eukaryotic (nucleus-bearing) organisms that photosynthesize and have the specialized reproductive structures of plants.

5. It is sometimes difficult to distinguish algae from certain protozoa and fungi.

6. [Seaweeds](http://www.britannica.com/EBchecked/topic/531166/seaweed) are sometimes eaten by people and are considered acceptable foods in many restaurants.

**4. Complete the sentences.**

1. The [taxonomy](http://www.britannica.com/EBchecked/topic/584695/taxonomy) of algae is …..

2. Algae provide …….

3. The [taxonomy](http://www.britannica.com/EBchecked/topic/584695/taxonomy) of algae is subject to rapid change because …….

4. Algae were classified into ……

5. Some algae have a closer evolutionary relationship with ……

6. Algae are the cause of …….

7. Algae are the base of the [food chain](http://www.britannica.com/EBchecked/topic/212636/food-chain) for all marine organisms because ……