

buried inside the floret where exposure to wind is unlikely.

## CHAPTER TEST B

**Multiple Choice** 1. a 2. b 3. d 4. a 5. b 6. c  
7. c 8. d 9. d 10. a **Completion** 1. leaves 2. pol-  
len grain 3. endosperm 4. carpels 5. dormancy  
**True or False** 1. F, water 2. F, germinates 3. T 4. F,  
scion 5. T **Using Science Skills** 1. structure a (an-  
ther) 2. filament 3. Sepals enclose the flower bud be-  
fore it opens and protect the flower while it is developing.  
4. pistil **Essay** 1. Pollen grains are carried by the wind  
to female cones. If a pollen grain lands near an ovule, the  
grain splits open and begins to grow a pollen tube contain-  
ing two haploid sperm. The pollen tube grows into the  
ovule and the sperm break out of the tube. One sperm  
fertilizes the egg and the other disintegrates. 2. In layer-  
ing, a stem is cut partway through and dusted with rooting  
powder. The stem is then wrapped in moist moss or bent  
to the ground and covered with soil. When rooting is com-  
plete, the rooted stem is separated from the parent plant.  
3. Vegetative reproduction is a form of asexual reproduc-  
tion for flowering plants. It enables a plant to produce  
many offspring genetically identical to itself. It also en-  
ables new varieties of plants that do not produce seeds  
to reproduce. 4. When seeds germinate, they absorb

water. The water causes the endosperm and cotyledons to swell and crack the seed coat. The radicle emerges and grows into the primary root. In most monocots, the single cotyledon remains within the seed. The growing shoot emerges protected by a sheath. 5. A bean is a dicot. The two halves of a bean are the two cotyledons. In a bean,

the food stored in the endosperm is almost completely used up by the time the seed is mature. Food used by the embryo is stored in the cotyledons. Corn is a monocot. In corn, much of the endosperm remains in the mature seed. In fact, most of the corn seed is occupied by the endosperm.