

**FOOD, LAND, AND PEOPLE
FCAT ASSESSMENT QUESTIONS
PRE/POST TEST
Answer Key**

BANKING ON SEEDS

Please select the **best** answer.

1. SC.H.3.2.1 (AA), SC.H.3.2.4 (AA)

Heritage Farm near Decorah, Iowa, has thousands of varieties of heirloom seeds stored on their farm. Why are these heirloom seeds so valuable?

- A. People who enjoy seed collecting purchase the seeds.
- B. **The seeds provide a seed bank to supply farmers in case of a disaster causing a major crop failure.**
- C. The seeds will be sold in online catalogues to farmers all over the country.
- D. The seeds will be used to grow plants for landscaping around Heritage Farm.

2. SC.H.3.2.4 (AA), SC.H.3.2.1 (AA)

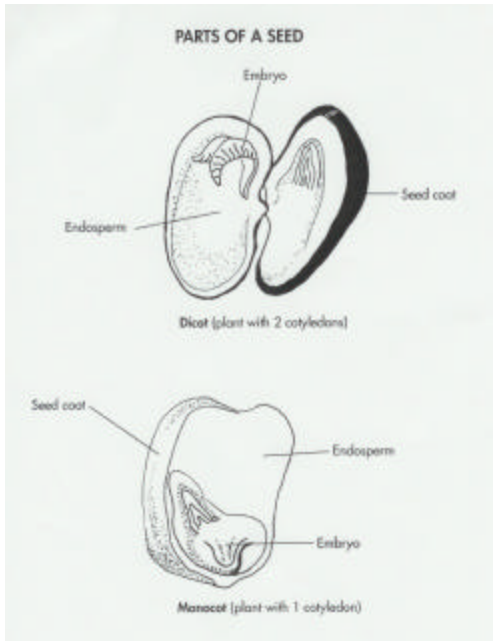
What is the correct order for making a seed bank?

- A. Growing, labeling, gathering, drying, storing
- B. Growing, drying, labeling, gathering, storing
- C. **Growing, gathering, drying, labeling, storing**
- D. Growing, drying, gathering, labeling, storing

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3. SC.F.1.2.3 (AA)

The following diagram represents the parts of a seed of a monocot and dicot plant.



What part of the seed stores food for the new plant?

- A. Cotyledon
- B. Embryo
- C. **Endosperm**
- D. Seed coat

4. MA.A.1.2.2

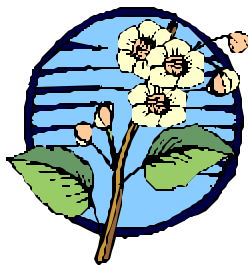
From time to time, the seeds stored in banks must be grown and new seeds harvested for storage. Farmer Thomas will test 100 of the stored seeds to see what percent will sprout. 50 of the 100 seeds sprout, so Farmer Thomas can calculate that 50 % of all seeds that he plants will sprout and grow. He wants to grow 200 plants. How many seeds should he plant?

- A. **400**
- B. 300
- C. 200
- D. 50

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5. SC.G.2.2.1 (AA), SC.F.2.2.1

Resists insects



Parent A

Resists disease



Parent B

Hybrids are produced when plants with different characteristics are pollinated. Parent A and Parent B are cross-pollinated and new seeds are formed. The seeds are planted and grow into new plants. What characteristics would scientists be looking for in the hybrid?

- A. Resist disease
- B. Resist insects
- C. **Resist insects and disease**
- D. Resist insects and drought

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Performance Task: SC.H.3.2.1 (AA), SC.H.3.2.4 (AA)

Seeds have been important throughout history. Early in history, people all over the world became dependent on growing plants for food. Seeds were gathered and planted. The seeds from the healthiest plants were saved to grow in the next planting season. Seeds had many other uses besides food for early people. They used seeds for money, jewelry, dyes, spices, ornaments, and to trade for things they needed.

Write a paragraph contrasting how people used seeds differently today than in the past.

[A correct response might include these ideas:

- **Today people buy their seeds instead of trading for them.**
- **People can grow seeds without soil (hydroponics).**
- **Scientists do genetic engineering to produce seeds that will grow plants with certain traits.**
- **Astronauts do experiments with seeds in space.]**