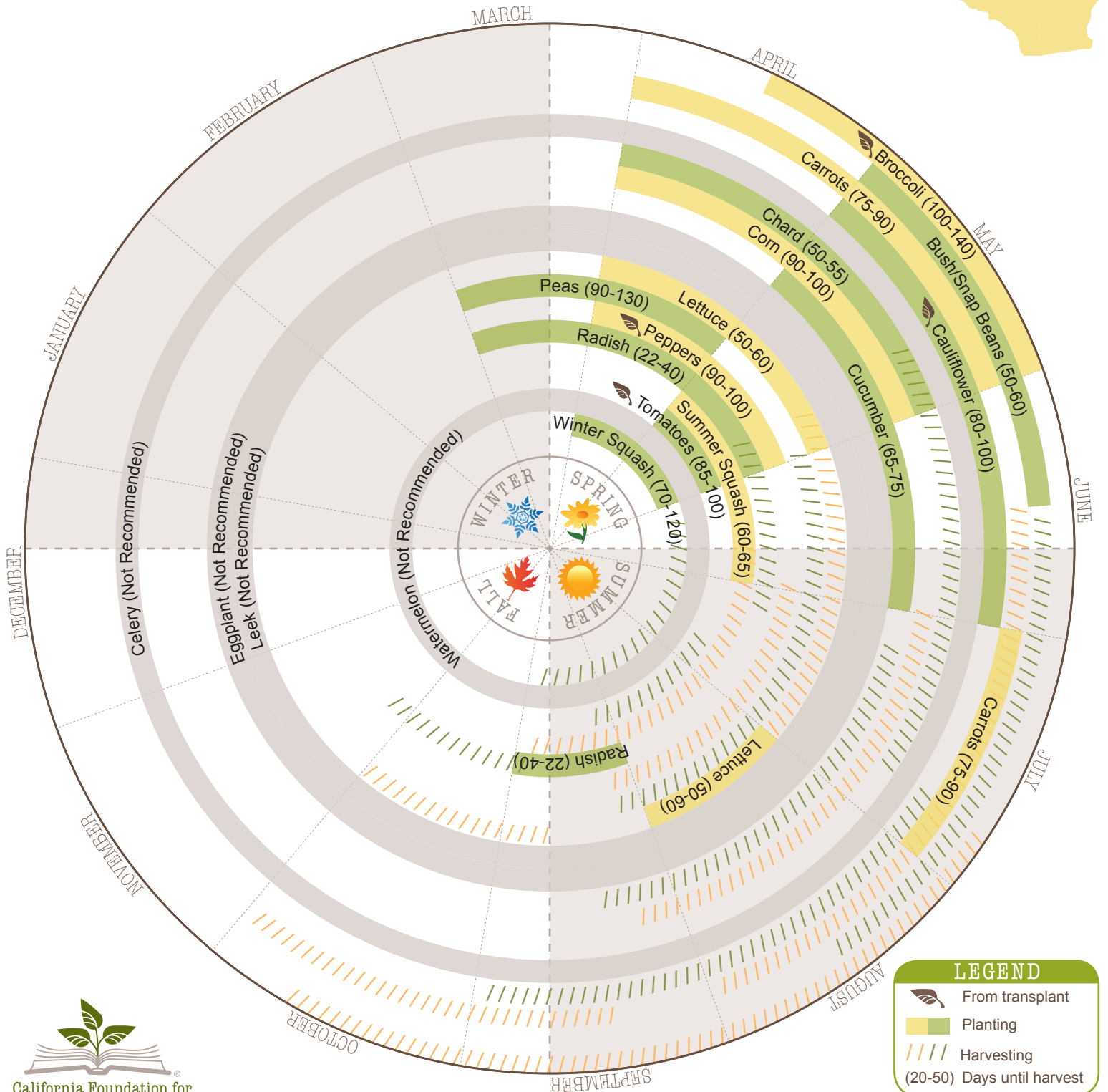


CROP Circles

CALIFORNIA REGIONS OF OPTIMAL PLANTING

The CROP Circle is an easy-to-use diagram that illustrates proper planting and harvesting times for 18 crops commonly found in California school gardens. These are optimal and recommended planting and harvesting times that can be altered to better suit your individual microclimate or school calendar. The Circle is divided into four seasons with each individual crop in its own concentric circle. The colored bars represent the months most suitable for planting that specific crop and the hash marks represent the months most suitable for harvesting that same crop. The days indicated in the parentheses are the approximate number of days after planting for the crop to reach maturity and be ready to harvest.

REGION 1: NORTHERN MOUNTAINS



CROP CIRCLES MATH ACTIVITIES

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1 Using the information located on the CROP Circle, choose five different crops and determine the mean (average) number of days until harvest for each crop. Round your answer to the nearest whole number.

Example:

Radish (22-40 days until harvest)

$$\frac{22+40}{2} = 31$$

Grade 4: Number Sense (NS) 1.3; Mathematical Reasoning (MR) 1.0, 2.5; Grade 5: Statistics, Data Analysis and Probability (SDP) 1.1; MR 1.0, 2.5; Grade 6: SDP 1.1

4 If you plant summer squash on June 30, on what approximate day can you plan to harvest? Assume the average number of days to harvest.

5 If you want to harvest carrots on October 1, approximately what day should you plant the crop? Assume the average number of days to harvest.

Grade 4: NS 3.1; MR 2.2; Grade 5: MR 2.2; Grade 6: NS 2.3

2 Using the CROP Circle diagram as a guide, determine the number of months each crop can be planted out of the year. Represent your findings in the form of a decimal, fraction and percent.

Example:

Cauliflower is planted in the months of May and June. You can plant cauliflower two months out of the 12 months of the year.

Decimal: .17 Fraction: $\frac{1}{6}$ Percentage: 17%

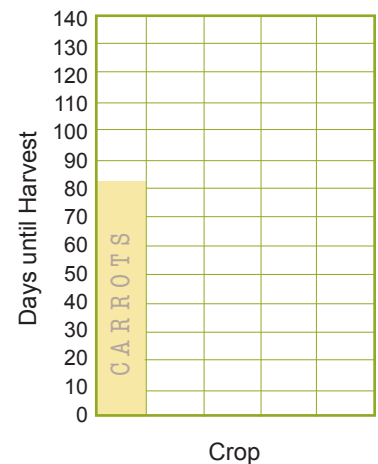
Which crop can you plant the most months of the year?

3

Grade 4: NS 1.6, 1.7, 3.2, 3.4; MR 2.3; Grade 5: NS 1.2; MR 2.3; Grade 6: NS 1.2; MR 2.4

6 The following table illustrates the mean (average) number of days it takes for several crops to reach maturity and be ready for harvest. Complete the chart and create a bar graph to represent your data.

Crop	Average Days to Harvest
Carrots	82.5
Leek	
Eggplant	
Celery	
Cauliflower	
Radish	



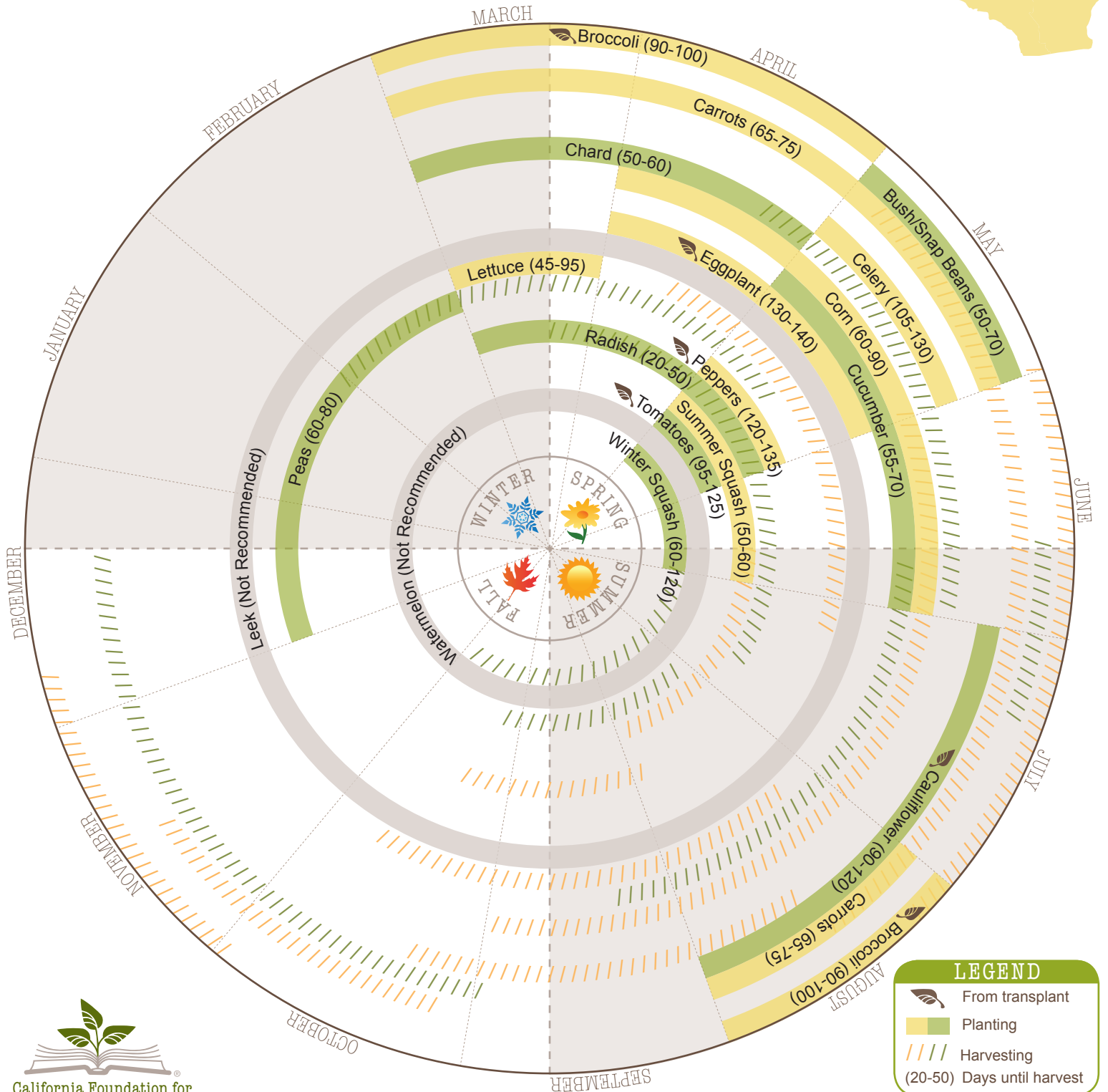
Grade 4: SDP 1.0, MR 2.3; Grade 5: SDP 1.2, MR 2.3; Grade 6: MR 2.4

CROP Circles

REGION 2: SIERRA FOOTHILLS

CALIFORNIA REGIONS OF OPTIMAL PLANTING

The CROP Circle is an easy-to-use diagram that illustrates proper planting and harvesting times for 18 crops commonly found in California school gardens. These are optimal and recommended planting and harvesting times that can be altered to better suit your individual microclimate or school calendar. The Circle is divided into four seasons with each individual crop in its own concentric circle. The colored bars represent the months most suitable for planting that specific crop and the hash marks represent the months most suitable for harvesting that same crop. The days indicated in the parentheses are the approximate number of days after planting for the crop to reach maturity and be ready to harvest.



LEGEND

- From transplant
- Planting
- Harvesting
- (20-50) Days until harvest

CROP CIRCLES MATH ACTIVITIES

School gardens are a valuable instrument for teaching core curricular subjects such as English-language arts, mathematics, science, history-social science, health, and visual and performing arts—all with an agricultural twist. The possibilities are endless! Here are a few examples of how to use this resource as a relevant tool to teach key math concepts, seasonality and plant growth, all while encouraging student interaction with the natural world. For more ideas on how to incorporate this resource into your classroom curriculum, visit www.cfaitc.org/cropcircles.

- Using the information located on the CROP Circle, choose five different crops and determine the mean (average) number of days until harvest for each crop. Round your answer to the nearest whole number.

Example:

Radish (20-50 days until harvest)

$$\frac{20+50}{2} = 35$$

Grade 4: Number Sense (NS) 1.3; Mathematical Reasoning (MR) 1.0, 2.5; Grade 5: Statistics, Data Analysis and Probability (SDP) 1.1; MR 1.0, 2.5; Grade 6: SDP 1.1

- If you plant summer squash on June 30, on what approximate day can you plan to harvest? Assume the average number of days to harvest.

- If you want to harvest chard on May 10, approximately what day should you plant the crop? Assume the average number of days to harvest.

Grade 4: NS 3.1; MR 2.2; Grade 5: MR 2.2; Grade 6: NS 2.3

- Using the CROP Circle diagram as a guide, determine the number of months each crop can be planted out of the year. Represent your findings in the form of a decimal, fraction and percent.

Example:

Broccoli is planted in the months of March, April and August. You can plant broccoli three months out of the 12 months of the year.

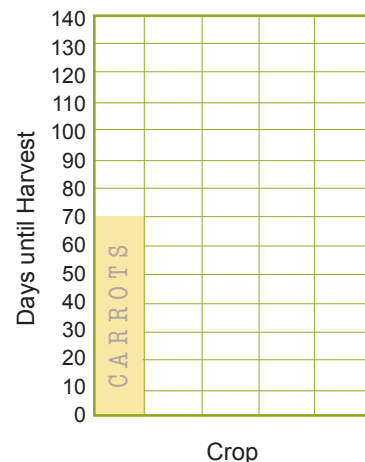
Decimal: .25 Fraction: $\frac{1}{4}$ Percentage: 25%

- Which crop can you plant the most months of the year?

Grade 4: NS 1.6, 1.7, 3.2, 3.4; MR 2.3; Grade 5: NS 1.2; MR 2.3; Grade 6: NS 1.2; MR 2.4

- The following table illustrates the mean (average) number of days it takes for several crops to reach maturity and be ready for harvest. Complete the chart and create a bar graph to represent your data.

Crop	Average Days to Harvest
Carrots	70
Leek	
Eggplant	
Celery	
Cauliflower	
Radish	



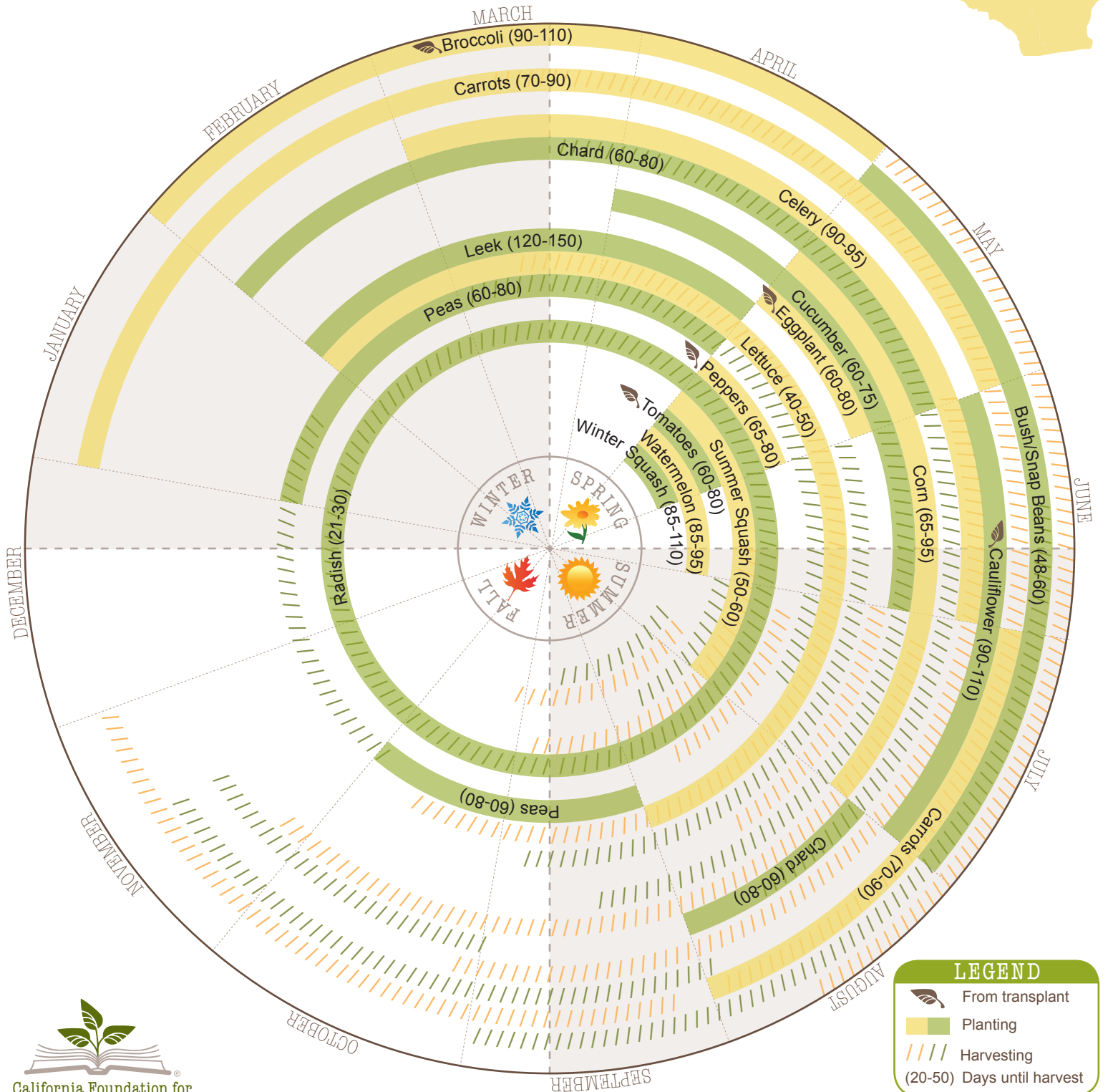
Grade 4: SDP 1.0, MR 2.3; Grade 5: SDP 1.2, MR 2.3; Grade 6: MR 2.4

CROP Circles

CALIFORNIA REGIONS OF OPTIMAL PLANTING

The CROP Circle is an easy-to-use diagram that illustrates proper planting and harvesting times for 18 crops commonly found in California school gardens. These are optimal and recommended planting and harvesting times that can be altered to better suit your individual microclimate or school calendar. The Circle is divided into four seasons with each individual crop in its own concentric circle. The colored bars represent the months most suitable for planting that specific crop and the hash marks represent the months most suitable for harvesting that same crop. The days indicated in the parentheses are the approximate number of days after planting for the crop to reach maturity and be ready to harvest.

REGION 3: NORTHERN/CENTRAL COAST



LEGEND

- From transplant
- Planting
- Harvesting
- (20-50) Days until harvest

CROP CIRCLES MATH ACTIVITIES

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1 Using the information located on the CROP Circle, choose five different crops and determine the mean (average) number of days until harvest for each crop. Round your answer to the nearest whole number.

Example:

Radish (21-30 days until harvest)

$$\frac{21+30}{2} = 25,5 = 26$$

Grade 4: Number Sense (NS) 1.3; Mathematical Reasoning (MR) 1.0, 2.5; Grade 5: Statistics, Data Analysis and Probability (SDP) 1.1; MR 1.0, 2.5; Grade 6: SDP 1.1

4 If you plant summer squash on June 30, on what approximate day can you plan to harvest? Assume the average number of days to harvest.

5 If you want to harvest chard on November 1, approximately what day should you plant the crop? Assume the average number of days to harvest.

Grade 4: NS 3.1; MR 2.2; Grade 5: MR 2.2; Grade 6: NS 2.3

2 Using the CROP Circle diagram as a guide, determine the number of months each crop can be planted out of the year. Represent your findings in the form of a decimal, fraction and percent.

Example:

Broccoli is planted in the months of February, March and April. You can plant broccoli three months out of the 12 months of the year.

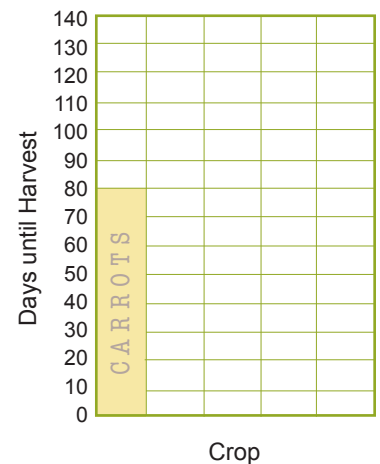
Decimal: .25 Fraction: $\frac{1}{4}$ Percentage: 25%

3 Which crop can you plant the most months of the year?

Grade 4: NS 1.6, 1.7, 3.2, 3.4; MR 2.3; Grade 5: NS 1.2; MR 2.3; Grade 6: NS 1.2; MR 2.4

6 The following table illustrates the mean (average) number of days it takes for several crops to reach maturity and be ready for harvest. Complete the chart and create a bar graph to represent your data.

Crop	Average Days to Harvest
Carrots	80
Leek	
Eggplant	
Celery	
Cauliflower	
Radish	



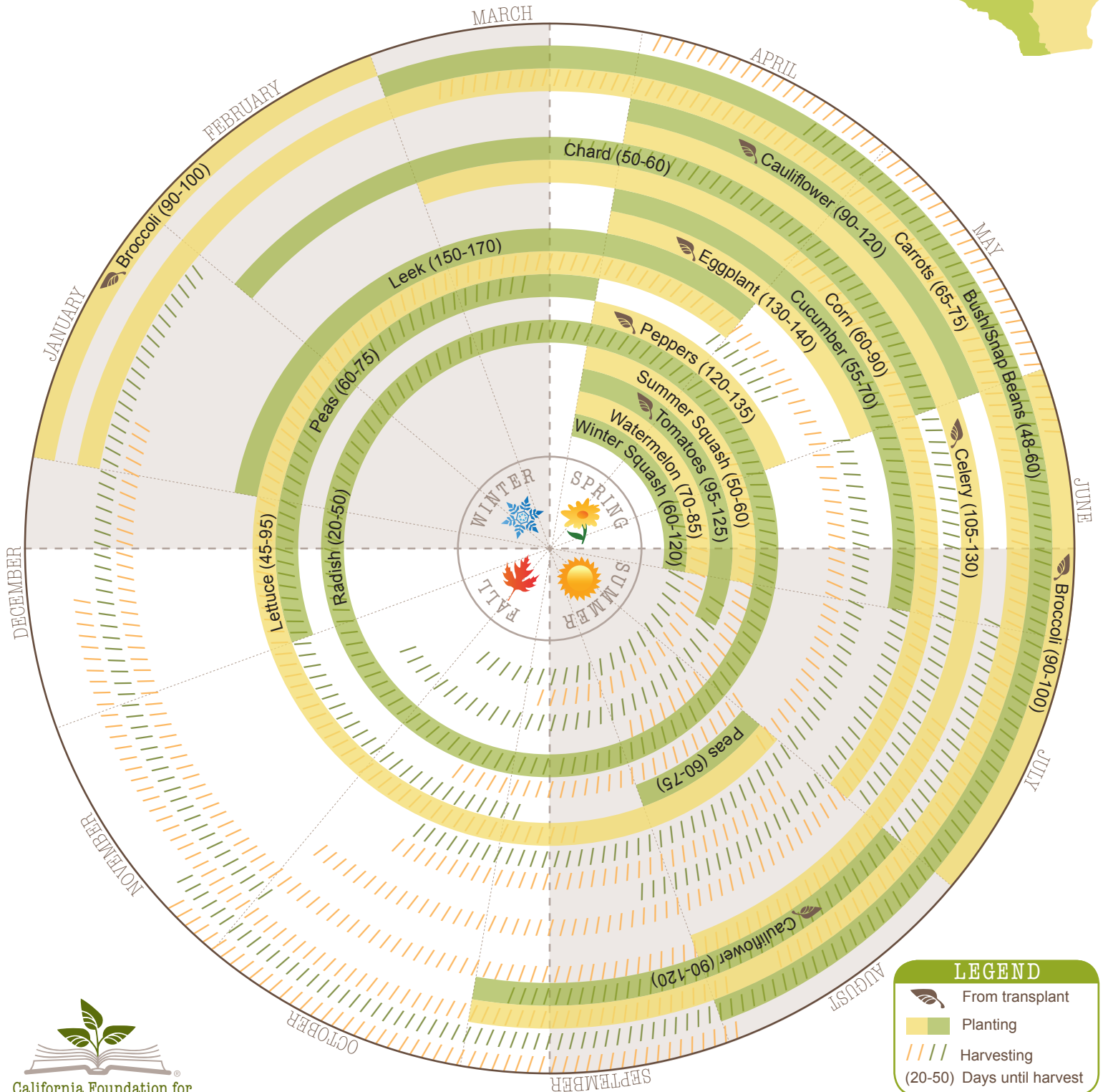
Grade 4: SDP 1.0, MR 2.3; Grade 5: SDP 1.2, MR 2.3; Grade 6: MR 2.4

CROP Circles

CALIFORNIA REGIONS OF OPTIMAL PLANTING

The CROP Circle is an easy-to-use diagram that illustrates proper planting and harvesting times for 18 crops commonly found in California school gardens. These are optimal and recommended planting and harvesting times that can be altered to better suit your individual microclimate or school calendar. The Circle is divided into four seasons with each individual crop in its own concentric circle. The colored bars represent the months most suitable for planting that specific crop and the hash marks represent the months most suitable for harvesting that same crop. The days indicated in the parentheses are the approximate number of days after planting for the crop to reach maturity and be ready to harvest.

REGION 4: SOUTHERN COAST



LEGEND

- From transplant
- Planting
- Harvesting
- (20-50) Days until harvest

CROP CIRCLES MATH ACTIVITIES

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1 Using the information located on the CROP Circle, choose five different crops and determine the mean (average) number of days until harvest for each crop. Round your answer to the nearest whole number.

Example:

Radish (20-50 days until harvest)

$$\frac{20+50}{2} = 35$$

Grade 4: Number Sense (NS) 1.3; Mathematical Reasoning (MR) 1.0, 2.5; Grade 5: Statistics, Data Analysis and Probability (SDP) 1.1; MR 1.0, 2.5; Grade 6: SDP 1.1

4 If you plant summer squash on June 30, on what approximate day can you plan to harvest? Assume the average number of days to harvest.

5 If you want to harvest chard on May 10, approximately what day should you plant the crop? Assume the average number of days to harvest.

Grade 4: NS 3.1; MR 2.2; Grade 5: MR 2.2; Grade 6: NS 2.3

2 Using the CROP Circle diagram as a guide, determine the number of months each crop can be planted out of the year. Represent your findings in the form of a decimal, fraction and percent.

Example:

Broccoli is planted in the months of January, February, June and July. You can plant broccoli four months out of the 12 months of the year.

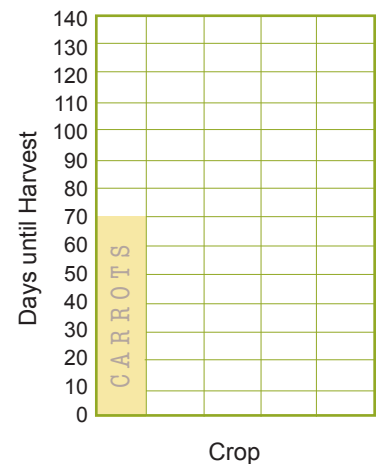
Decimal: .33 Fraction: $\frac{1}{3}$ Percentage: 33%

3 Which crop can you plant the most months of the year?

Grade 4: NS 1.6, 1.7, 3.2, 3.4; MR 2.3; Grade 5: NS 1.2; MR 2.3; Grade 6: NS 1.2; MR 2.4

6 The following table illustrates the mean (average) number of days it takes for several crops to reach maturity and be ready for harvest. Complete the chart and create a bar graph to represent your data.

Crop	Average Days to Harvest
Carrots	70
Leek	
Eggplant	
Celery	
Cauliflower	
Radish	



Grade 4: SDP 1.0, MR 2.3; Grade 5: SDP 1.2, MR 2.3; Grade 6: MR 2.4

CROP Circles MATH ACTIVITIES

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Example:

Radish (21-30 days until harvest)

$$\frac{21+30}{2} = 25.5 = 26$$

Grade 4: Number Sense (NS) 1.3; Mathematical Reasoning (MR) 1.0, 2.5; Grade 5: Statistics, Data Analysis and Probability (SDP) 1.1; MR 1.0, 2.5; Grade 6: SDP 1.1

4 If you plant summer squash on May 30, on what approximate day can you plan to harvest? Assume the average number of days to harvest.

5 If you want to harvest cauliflower on November 1, approximately what day should you plant the crop? Assume the average number of days to harvest.

Grade 4: NS 3.1; MR 2.2; Grade 5: MR 2.2; Grade 6: NS 2.3

2 Using the CROP Circle diagram as a guide, determine the number of months each crop can be planted out of the year. Represent your findings in the form of a decimal, fraction and percent.

Example:

Broccoli is planted in the months of January, February, July and December. You can plant broccoli four months out of the 12 months of the year.

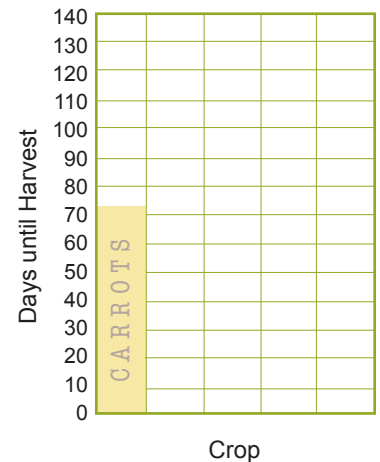
Decimal: .33 Fraction: $\frac{1}{3}$ Percentage: 33%

3 Which crop can you plant the most months of the year?

Grade 4: NS 1.6, 1.7, 3.2, 3.4; MR 2.3; Grade 5: NS 1.2; MR 2.3; Grade 6: NS 1.2; MR 2.4

6 The following table illustrates the mean (average) number of days it takes for several crops to reach maturity and be ready for harvest. Complete the chart and create a bar graph to represent your data.

Crop	Average Days to Harvest
Carrots	72.5
Leek	
Eggplant	
Celery	
Cauliflower	
Radish	



Grade 4: SDP 1.0, MR 2.3; Grade 5: SDP 1.2, MR 2.3; Grade 6: MR 2.4

CROP CIRCLES MATH ACTIVITIES

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1 Using the information located on the CROP Circle, choose five different crops and determine the mean (average) number of days until harvest for each crop. Round your answer to the nearest whole number.

Example:

Radish (20-50 days until harvest)

$$\frac{20+50}{2} = 35$$

Grade 4: Number Sense (NS) 1.3; Mathematical Reasoning (MR) 1.0, 2.5; Grade 5: Statistics, Data Analysis and Probability (SDP) 1.1; MR 1.0, 2.5; Grade 6: SDP 1.1

4 If you plant summer squash on March 30, on what approximate day can you plan to harvest? Assume the average number of days to harvest.

5 If you want to harvest chard on December 10, approximately what day should you plant the crop? Assume the average number of days to harvest.

Grade 4: NS 3.1; MR 2.2; Grade 5: MR 2.2; Grade 6: NS 2.3

2 Using the CROP Circle diagram as a guide, determine the number of months each crop can be planted out of the year. Represent your findings in the form of a decimal, fraction and percent.

Example:

Cauliflower is planted in the months of August and September. You can plant cauliflower two months out of the 12 months of the year.

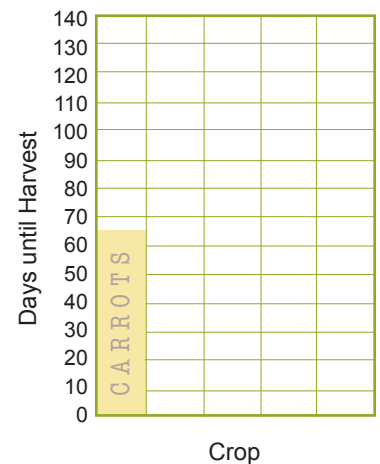
Decimal: .17 Fraction: $\frac{1}{6}$ Percentage: 17%

3 Which crop can you plant the most months of the year?

Grade 4: NS 1.6, 1.7, 3.2, 3.4; MR 2.3; Grade 5: NS 1.2; MR 2.3; Grade 6: NS 1.2; MR 2.4

6 The following table illustrates the mean (average) number of days it takes for several crops to reach maturity and be ready for harvest. Complete the chart and create a bar graph to represent your data.

Crop	Average Days to Harvest
Carrots	65
Leek	
Eggplant	
Celery	
Cauliflower	
Radish	



Grade 4: SDP 1.0, MR 2.3; Grade 5: SDP 1.2, MR 2.3; Grade 6: MR 2.4