

Battle Corn

Lesson 15

Name: _____

Date: _____

Vocabulary

Magnetic North - the direction that the north-pointing end of a compass needle faces based on Earth's magnetic fields

True North - the geographic location on Earth's surface that aligns with the "top" of the Earth and is perpendicular to the horizon

Activity 1

True North and Magnetic North Clues

Using the Ari Compass Application, you'll first create a list of guesses to locate your partner's corn on their map. The challenge will be that one partner will receive clues using true north directions, and one partner will receive magnetic north clues!

True North Example Clue

A corn is located South South West of South Dakota.

Magnetic North Example Clue

A corn is located North East of Kentucky.

Battle Corn

Name: _____

Lesson 15

Date: _____

1

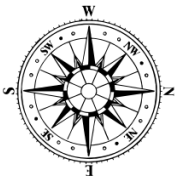
Partner 1: True North Clues

1. Cut out your corn pieces and place them on your map at the intersection of lines on the grid.
2. Create **10 true north clues** below. These clues should reference the compass provided with your map and the directions shown on it.
 - a. Clue 1:
 - b. Clue 2:
 - c. Clue 3:
 - d. Clue 4:
 - e. Clue 5:
 - f. Clue 6:
 - g. Clue 7:
 - h. Clue 8:
 - i. Clue 9:
 - j. Clue 10:

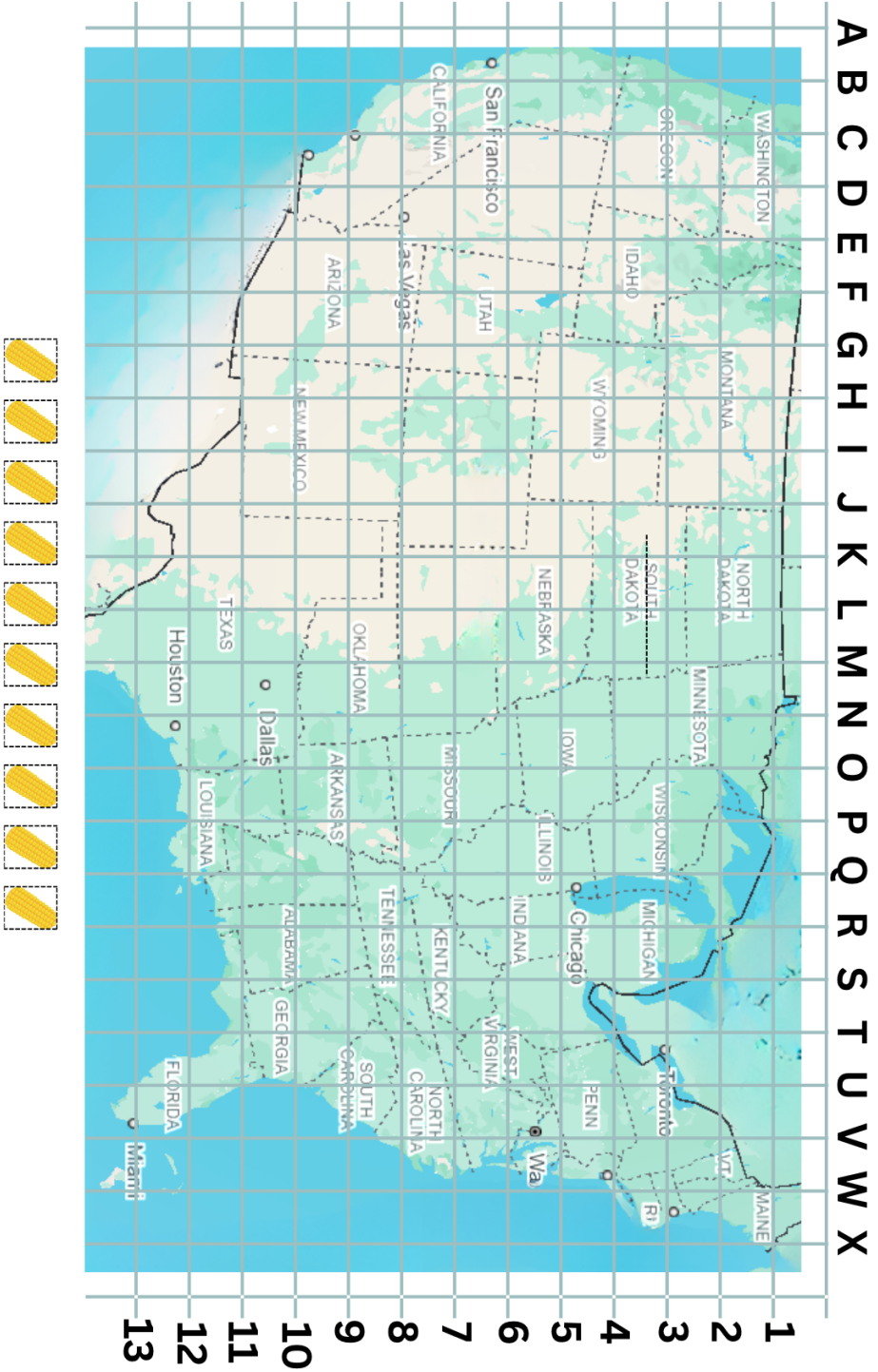
Battle Corn
Lesson 15

Name: _____

Date: _____



True North Player



Battle Corn

Name: _____

Lesson 15

Date: _____

2

Partner 2: Magnetic North Clues

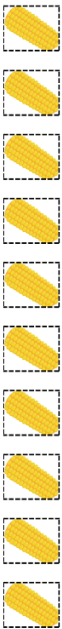
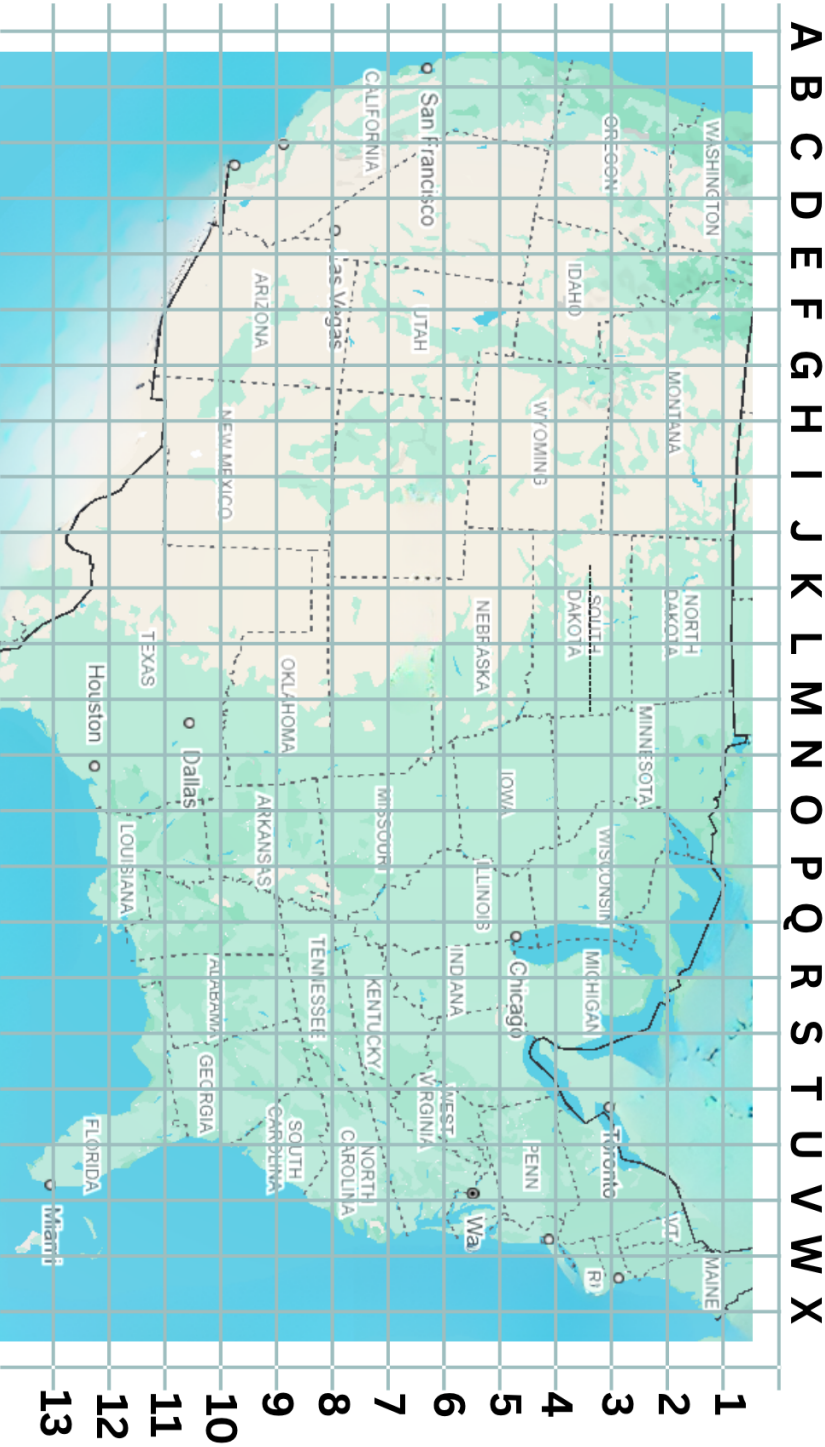
3. Cut out your corn pieces and place them on your map at the intersection of lines on the grid.
4. Create **10 magnetic north clues** below. These clues should reference the Ari Compass Application set to the Advanced setting.
 - a. Clue 1:
 - b. Clue 2:
 - c. Clue 3:
 - d. Clue 4:
 - e. Clue 5:
 - f. Clue 6:
 - g. Clue 7:
 - h. Clue 8:
 - i. Clue 9:
 - j. Clue 10:

Battle Corn
Lesson 15

Name: _____

Date: _____

Magnetic North Player



Battle Corn

Name: _____

Lesson 15

Date: _____

Activity 2

Guess the Corn Location

After generating clues, Partner 2 will give the Ari with the Compass application open, set to the Advanced setting to Partner 1. Partner 1 will read their clues, pausing after each clue and allowing Partner 2 **two guesses** as to where they believe the corn is located.

When guessing, partners can use the column letter and row number to refer to locations.

If a partner guesses the correct location, they earn the corn! The partner who collects the most corn wins.

Record your guesses below.

1

Example Game Play

Partner 1 True North Clue

A corn is located South South West of South Dakota.

Partner 2

Using the compass provided.

*Guess 1: Is a corn located at **K4**?*

*Guess 2: Is a corn located at **J4**?*

Battle Corn

Name: _____

Lesson 15

Date: _____

Partner 1 Provided Clues

1.
 - a.
 - b.
2.
 - a.
 - b.
3.
 - a.
 - b.
4.
 - a.
 - b.
5.
 - a.
 - b.
6.
 - a.
 - b.
7.
 - a.
 - b.
8.
 - a.
 - b.
9.
 - a.
 - b.
10.
 - a.
 - b.

Battle Corn

Lesson 15

2

Name: _____

Date: _____

Example Game Play

Partner 2 Magnetic North Clue

A corn is located Northeast of Kentucky.

Partner 1

Using the Ari Compass application set to Advanced.

Guess 1: Is a corn located at T8?

Guess 2: Is a corn located at T9?

Partner 2 Provided Clues

1.

a.

b.

2.

a.

b.

3.

a.

b.

4.

a.

b.

5.

a.

b.

6.

a.

b.

7.

a.

b.

8.

a.

b.

9.

a.

b.

10.

a.

b.

Battle Corn

Lesson 15

Name: _____

Date: _____

Exit Ticket

Please respond to the following prompts.

Criteria for Success:

- Accurate use of magnetic and true north directions.
- Include factors that may impact the variation of the magnetic north.

1. Why do you think magnetic north varies?

2. Which type of directions were easier to give and which were easier to receive?
