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## PLANT mAGic KIT

## TABLE OF LESSONS and STUDENT OBJECTIVES

## <u>MATH</u>

## LESSON #1 ILLINOIS CASH INCOME

- 1. Read charts and graphs to answer questions.
- 2. Use computation skills to find answers from data.
- 3. Use numbers in millions and billions.
- 4. Convert fractions, decimals and percentages.

## LESSON #2 FARM CROPS & ANIMAL LOGIC PUZZLE

1. Apply logical thinking to solve a puzzle.

## LESSON #3 USA EXPORTS IN BILLIONS

- 1. Interpret charts to answer questions.
- 2. Perform math and calculations using numbers in millions and billions.

## LESSON #4 AMERICAN AGRICULTURE'S SHARE OF THE WORLD

## PRODUCTION

- 1. Interpret charts and graphs to answer questions.
- 2. Convert information from a chart to a line/ double line graph.
- 3. Execute math calculations using fractions and decimals.

## LESSON #5 PERCENT GERMINATION FOR A SOYBEAN SAMPLE

- 1. Convert fractions, decimals and percentages.
- 2. Translate information into a line/ double line graph.

## LANGUAGE ARTS / ENGLISH

## LESSON #1 SHOW WHAT YOU KNOW PLANT GROWTH

- 1. Explain corn products and by-products.
- 2. Identify various corn products and by products.
- 3. Explain soybean products and by-products.
- 4. Identify the parts of a soybean and their functions.

## LESSON #2 TC COBB & THE CORNSTALK RIDDLES

- 1. Interpret TC Cobb riddles.
- 2. Explain crop characteristics through written expression.

## LESSON #3 SHOW WHAT YOU KNOW WATER

- 1. Identify the parts of the water cycle.
- 2. Compare the physical states of water.
- 3. Identify water conservation practices.
- 4. Determine the sustainability of the Earth's water resources.

#### SOCIAL STUDIES

#### LESSON #1 PEANUT PRODUCTION

- 1. Identify and label countries that import or export peanuts on a world map.
- 2. Identify and label states that grow peanuts on a US map.

#### LESSON #2 GEORGE WASHINGTON CARVER

- 1. Explain how George Washington Carver helped the southern farmers.
- 2. Describe the life of George Washington Carver through written expression.

#### LESSON #3 MOVING ILLINOIS AGRICULTURE BY ROAD, RAIL & RIVER

- 1. Name three things that make Illinois an ideal center of agriculture.
- 2. Know what part of Illinois was settled first and why.
- 3. Know how farming changed around 1830.
- 4. Know how farm products were first shipped to New Orleans from Illinois.
- 5. Know what was built to make it possible for goods to be shipped by boat from the Mississippi River to the Great Lakes.
- 6. Name the transportation method that became important after 1850.
- 7. Know the benefits to Illinois from selling its farm products around the world.

### LESSON #4 TASSEL TO TABLE

- 1. Explain or model the processes involved in taking corn from the field and turning it into a food for our table and various other corn products.
- 2. Identify the four main phases of the process involved in taking corn from the field and turning it into food for our table.
- 3. Name at least 5 careers involved in turning corn into food.

#### <u>SCIENCE</u>

#### LESSON #1 EXPLORING TYPES OF SEEDS MONOCOTS AND DICOTS

- 1. Identify the parts of a seed.
- 2. Observe the action of water on soybean seeds.
- 3. Compare the growth and development of two types of seeds monocots & dicots.
- 4. Identify the major parts of mature (full grown) corn and soybean plants.

#### LESSON #2 TERRARIUMS

- 1. Compare a small ecosystem to the Earth's ecosystem.
- 2. Observe the condensation and compare to the Earth's water cycle.
- 3. Recognize different plants as they emerge from the soil.
- 4. Observe germination rates of seedlings.

#### LESSON #3 PLANT EXPERIMENTS

- 1. Explain the requirements plants need to grow and thrive.
- 2. Apply the steps of the scientific method.