

Activity 1



EXAMINING SEEDS



STUDY QUESTION:

How many seeds are in one head of grain?

THE ACTIVITY:

In this activity children examine individual seeds of grain and count the number of seeds in heads of grain, pods of legumes, or ears of corn.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Listen to directions.

Develop thought processes: make comparisons.

Use appropriate forms of written language: record experiences.

SCIENCE

Plants: observe characteristics of seeds.

AGRICULTURE CONCEPTS: Ripening: seeds as a living thing.

PURPOSE

To introduce children to the concepts of maturing, living seeds and to different types of seeds grown in Alberta and counting objects.

To give children the opportunity to develop their language skills while learning about seeds.

MATERIALS REQUIRED:

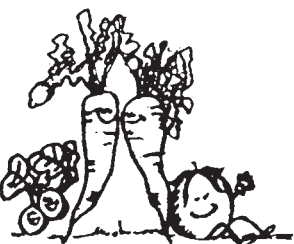
A few stems of grain for each child. (Other seed-producing plants such as corn, beans or peas can be used if grain is not accessible.)

Diagrams of heads of grain. Supplied in this activity. (See also information sheets on crops of Alberta - Activity 27, Book 3.)

Student data sheet for field observations and task sheets on grain. Supplied in this activity.

TIME REQUIRED:

1 to 2 class periods.



PROCEDURE

Part One

Introduction

Bring in the necessary grain and ask the children how they think that it got like it is now so as to start a discussion on grain and seeds.

Part Two

Examining

Examine the diagrams of grain, noting the details of seeds on the heads of grain. Give each child a stem of grain. Ask the children to count the numbers of seeds in their

Counting

individual heads of grain and to note their color.

NOTE:

If grain is not available use pods of peas or beans, cobs of corn, or stems of a wild grass. Relate them to grain by referring to the diagrams of grain stems. See also the information sheet on crops of Alberta.

Part Three

Recording

Have each child write his or her number on the board, along with the color of the seeds and head. Compare numbers, noting variations, and note the colors listed.

Part Four

Conclusion

Discuss the results briefly, emphasizing that each plant grows from a single seed but that the number of new seeds varies. Note also the significance of color as a sign of ripeness - readiness for harvest by comparing grain to other things (corn, tomatoes, etc.).

FOR DISCUSSION

What color is ripened grain?

What color is growing grain?

Do other things change color as they mature?

Why does the grain turn color?

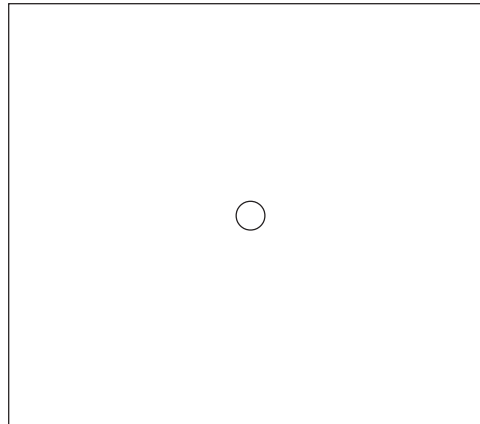
EVALUATION STRATEGIES

Use the observation sheet and the two task sheets as a method of evaluation.

Ask children to do a short write-up with pictures using new agriculture words they learned.

RELATED ACTIVITIES

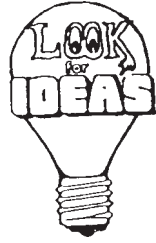
1. Make a trip to a grain field to collect the stalks of grain for this activity. Back in the classroom, make an experience chart about the grain or have the children use the data sheet to record individual observations about the field - simple printed observations or drawings or a combination. Save the data sheets for a field trip in another season.
2. Take a walk to the same grain field in another season. Use the original data sheet for recording. Compare field conditions in different seasons. Relate these observations to farm work and to life on a farm.
3. Make a simple pin-hole camera for each child, using a sheet of heavy paper or a large card:



Use these to view a tree outside the window or an object in the room. Relate this activity to the idea of focusing in on a single stalk in a field of grain.

The closer an object the more it will be in focus or seem to be enlarged.

TEACHER RESOURCE



THE SAD SEED

One day as Slide the earthworm was wriggling through the dirt he noticed one little seed that was crying.

Slide asked, "What's the matter little seed?"

"I am afraid of the dark," sniffled the poor little seed.

"Oh!" said Slide, "When were you put in the ground?"

"I was put into this scary, dark place two days ago," he responded.

"Well then I have some good news for you!" said Slide joyfully.

"Like what?" the little seed asked with surprise.

Slide said, "You will be back in the sunlight very soon."

"But you must be patient until then!" warned Slide.

"How will I ever get back into the sunlight with all this dirt on top of me?" whimpered the little seed.

Slide said, "You will sprout roots and a stalk which will poke above ground, and then you will grow slowly into a very tall green plant with many seeds. Then you will turn a wonderful gold color when you are mature."

The little seed said, "Thank-you!"

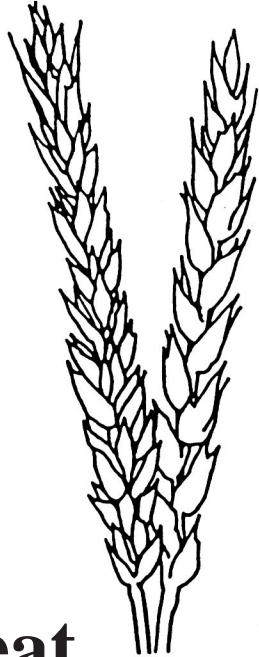
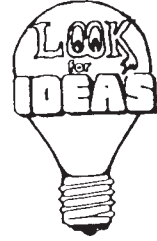
The seed seemed much happier so Slide went on his way. The next time Slide saw him, he was a foot above ground and growing rapidly.

author - C.G. Bibby



TEACHER RESOURCE

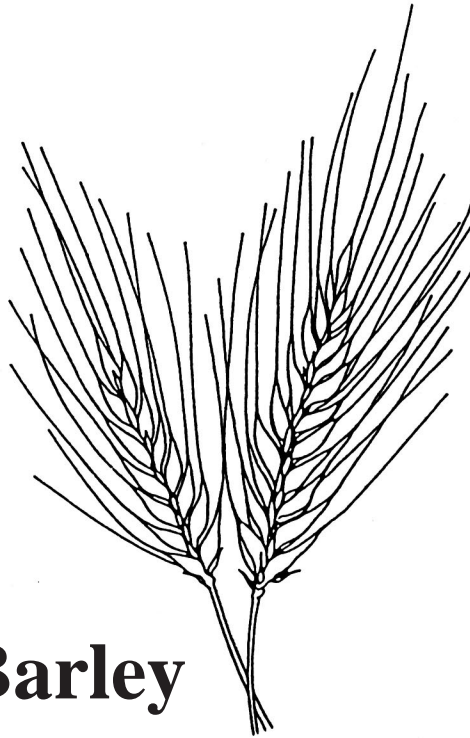
Grains of Alberta



Wheat



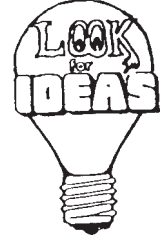
Oats



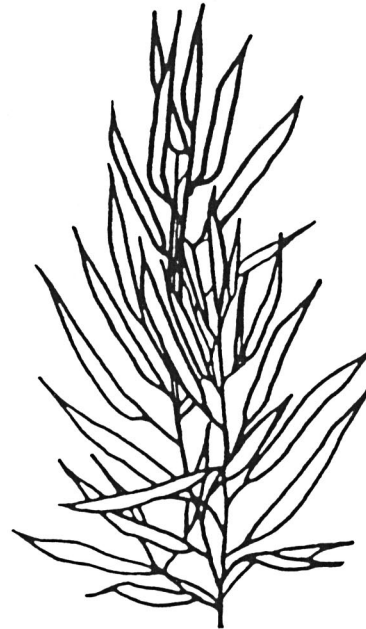
Barley

TEACHER RESOURCE

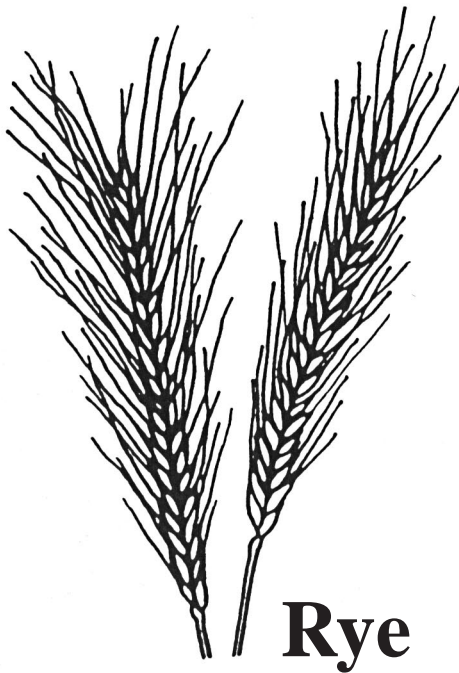
Grains of Alberta



Corn



Canola



Rye

STUDENT RESOURCE

Data Sheet for Field Trip



First Field Trip

Second Field Trip

First Field Trip	Second Field Trip
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Things To Look For

1. What does grain look like, right up close?
2. How far apart are the plants?
3. How tall are they? Are they up to your knees?
4. How many heads are on the stem?
5. What does the earth look like and feel like?
6. How does it feel to pass my hand over the plants of grain?
7. How does a head of grain feel in my hand?



STUDENT RESOURCE

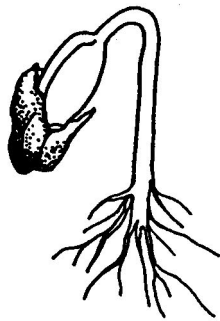
Agriculture Words



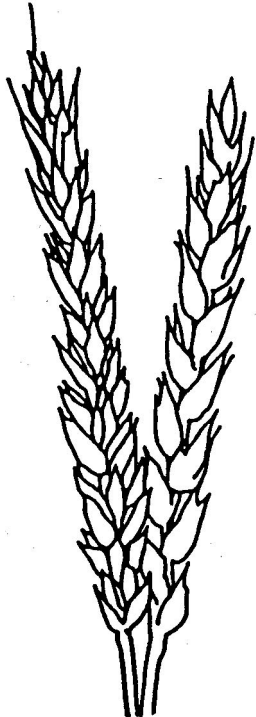
Can you finish the words in each picture?



_____ e e d s



_____ p r o u t



W h e a t

_____ l a n t

STUDENT RESOURCE

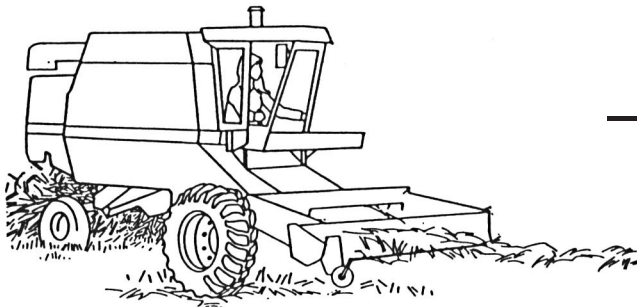
Agriculture Words



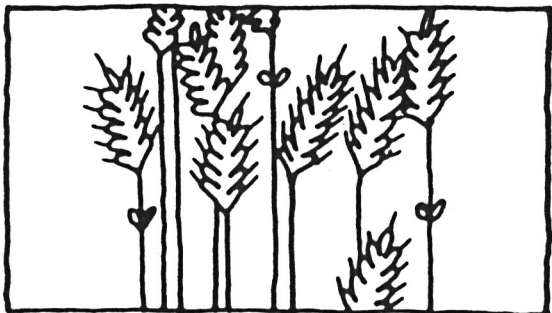
_____ a t s



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F i e l d _____ o f

G r _____ i n