Give Seeds Space

Students design, test, and improve a way to spread pretend seeds.

L.1.4.3 "Create a solution to an agricultural problem (i.e., pollination, seed dispersal, overcrowding). Use an engineering design process to define the problem, design, construct, evaluate, and improve the solution.*"

NAME _____ DATE _____

Teacher: this page is run aloud. The script and answers are on the guide page.

1 MAKE A PLAN

a

dark	dry	crowded

b

move	pile	hide

2 TEST AND CHANGE

TRY1	
TRY2	

ANSWER KEY

Give Seeds Space

GRADE 1 · L.1.4.3

HOW TO RUN THIS PAGE

Read the prompts aloud and give each student four paper clips and a pencil. Students identify a garden problem, choose a plan, test it, and change their approach after observing the result.

Students never read directions on this sheet. Read each part's script aloud, then each prompt, giving think time before students mark.

PART 1 · MAKE A PLAN

SAY "Imagine seeds growing close together in a garden. I will read each question and the three words. Circle one word in each row."

ROW	SAY	STUDENTS CIRCLE
a	The seeds are growing close together in one spot. Which word names the problem: dark, dry, or crowded?	**crowded**
b	Which plan could give the seeds more space: move, pile, or hide?	**move**

PART 2 · TEST AND CHANGE

SAY "Put four paper clips together on this sheet as pretend seeds. Use the tip of your pencil to push them apart with two pushes, then write in TRY1 how many clips touch no other clip. Tell me how you could change your pencil push to spread more clips, put the clips together again, try your change with two pushes, and write the new count in TRY2. Which try spread more clips, or were they the same?"

- Box 1 (beside TRY1): **The number of paper clips touching no other clip after the first two pushes, from 0 to 4.**
- Box 2 (beside TRY2): **The number of paper clips touching no other clip after the changed two pushes, from 0 to 4.**

WHAT TO ACCEPT

The circled answers are crowded and move. Accept counts that match each student's test; observe the student's spoken change and comparison, and record any teacher support separately.