

ACTIVITY IA4.9: Crackers the Parrot

Intended learning: To make combinations and partitions involving five.

Instructional mode: Shorter, productive practice, for whole class and individuals.


 **Materials:** Parrot puppet.



Photo 4.6 Crackers the parrot puppet

Description: Hold up the parrot. *This is Crackers. He can only say 'five'.* The parrot croaks 'five'. *We want to help Crackers look clever. Can you ask him a problem that gives the answer 5?* As students pose problems – $4 + 1$, $3 + 2$, $6 - 1$, $10 - 5$ and so on – Crackers answers 'five'. For $9 - 3$, Crackers shakes his head – he is good at arithmetic. The teacher can follow up the wrong suggestion with an arithmetic rack. *If we have nine beads, we can see five beads there. How many do we need to take away – without counting?* Following the whole class session, each student writes down a half-page of problems answering five.

Responses, variations and extensions:

- Look to less advanced students early on, so they have the opportunity to offer the problems in the range 1 to 10.
- Some students may think of more advanced problems, such as $100 - 95$. These need not be explained. The students see that Crackers does answer 'five', and can try to build on the idea: $80 - 75$, $200 - 195$, $1000 - 995$...
- Students may be using fingers, counting by ones, or using more facile strategies. The whole class session is a good opportunity to observe students' strategies, but not to intervene – rather, the momentum of making up good problems should be maintained.
- In a different lesson, Crackers only says 10, 20 or 15.
- For older students, the context might be a target with a target number. The task is to generate as many ways to reach the target number as possible. For example, if the target is 12, possible expressions might be: $6 + 6$, 4×3 , $3 + 3 + 3 + 3$, a dozen, 2×6 .

Acknowledgement: Treffers (2001).