

Diagnostic TASK

FOCUS**Understand Numbers**

- Key Understanding 1
- Key Understanding 2

Calculate

- Key Understanding 1

How Many?

Years/Grades K–3

Purpose

To find out which strategies children have available to them to solve an addition subtraction, multiplication and division problems.

Equipment

Provide each child with the word problem work sheet and access to a range of familiar counting materials.

Producing work samples

Whole class or small group observations

Tell them the problem and allow plenty of time for them to work it out.

Ask children to work out the answer in their head if they can. If a child appears to be struggling, say *Would you like to use your pencil and paper to jot something down?*

If this doesn't help, then suggest that they use a diagram to help. If they still struggle, then offer them a selection of materials.

Ask children to write a sentence to explain what they did in their head, with their pencil and paper, with their diagram or with the materials, to get their answer.

Individual interviews

Explain that for this activity they can work it out in their head or if they can't do it in their head they can use pencil and paper or some materials. Read the problem to the children to make sure they understand what they need to find out. Ask the child to explain or draw how they worked out the answer.

Record what the child does to arrive at an answer then ask them to say how they worked it out. Record their descriptions on their work sheet.

How Many? 1

Name _____ Year/Grade _____ Date _____

Ellen had 4 tomatoes and then picked 3 more tomatoes from the garden.
How many does she have now?

How did you work it out?

At a party 5 children wanted red jelly beans and 8 wanted yellow jelly beans.
How many children want jelly beans?

How did you work it out?

The children needed lots of beanbags for a game. In one basket there were 13 beanbags.
In another basket there were 8 beanbags. How many beanbags did they have
altogether?

How did you work it out?

How Many? 2

Name _____ Year/Grade _____ Date _____

There were 8 dogs playing and then 5 ran away. How many dogs are there now?

How did you work it out?

At a party some children wanted red jelly beans then 5 more wanted yellow jelly beans. Now 13 children want jelly beans. How many children want red jelly beans?

How did you work it out?

The children had 15 beanbags for a game. There were 6 green beanbags and the rest were red. How many beanbags were red?

How did you work it out?

How Many? 3

Name _____ Year/Grade _____ Date _____

Dirk has 5 bags of jelly beans with 3 jelly beans in each bag. How many jelly beans does he have all together? _____

How did you work it out?

Jesse has 12 bags of jelly beans with 5 jelly beans in each bag. How many jelly beans does he have all together? _____

How did you work it out?

How Many? 4

Name _____ Year/Grade _____ Date _____

Desiree has 12 Jelly Beans. She wants to put 3 Jelly Beans in each bag. How many bags would she need? _____

How did you work it out?

Tilopa has 12 lolly pops. She wants to share the lolly pops into 4 bags with the same number in each bag. How many lolly pops are in each bag? _____

How did you work it out?