## Playing Cards Week - Additive Reasoning Y1/2

## Day 1

- Cut a piece of paper into ten pieces and number them one to ten (or use playing cards ace to ten).
- Choosing two cards, how many different ways can you make ten?

For example $8+2=10$


- Can you now find a quick way to add up all ten cards?
- What other numbers can you make by adding two cards? What do you notice?
- What numbers under 20 can't you make? Why?


## Notes for adults working with groups of children

- Numicon might help model the relationships for the children.
- Help the children to work and record systematically so that they can see some of the patterns that should emerge and be sure they have considered all possibilities. Encourage the children to describe and explain any patterns they see.


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## Day 2

- Using two cards how many ways can you make 15 ?

For example, $10+5=15$


- How many ways will there be if you use three cards?


## Notes for adults working with groups of children

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- Help the children to work and record systematically so that they can see some of the patterns that should emerge and be sure they have considered all possibilities. Encourage the children to describe and explain any patterns they see.


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## Day 3

- Choose a pair of cards. Find the difference between your cards.

For example the difference between 10 and 5 is 5 i.e. $10-5=5$


- What is the biggest difference you can make using two of your ten cards? What's the smallest difference you can make?
- Can you make the smallest difference more than one way? Can you make the biggest difference more than one way?


## Notes for adults working with groups of children

- Numicon might help model the relationships for the children.
- Help the children to work and record systematically so that they can see some of the patterns that should emerge and be sure they have considered all possibilities. Encourage the children to describe and explain any patterns they see.


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## Day 4

- Shuffle the cards and put them face down. Choose four. Use all of your cards to get as close to 10 as possible by adding and subtracting them.


For example:

- $7+5+8+6=26$
- $7+5+8-6=14$
- $7+5+6-8=10$


## Notes for adults working with groups of children

- Help the children to work and record systematically so that they can see some of the patterns that should emerge and be sure they have considered all possibilities. Encourage the children to describe and explain any patterns they see.


## Playing Cards Week - Additive Reasoning Y1/2

## Day 5

- Shuffle the cards and put them face down. Choose three. Use them to make a two digit number and a one digit number. Add them together.
For example with 2, 5 and 6 you can make:
$25+6=31$ or $65+2=67$ or $56+2=58$

- How many different totals can you make using the same three cards? How do you make the largest number? How do you make the smallest?
- Try again with 3 different cards.


## Notes for adults working with groups of children

- Children might like to keep track of what they're doing on a number line.
- Help the children to work and record systematically so that they can see some of the patterns that should emerge and be sure they have considered all possibilities. Encourage the children to describe and explain any patterns they see.

