# Optellingen tot 20 zonder brug flitskaarten

## Materiaal
- Opdrachtkaarten

## Doelen

⬦ IVzv2 **Op een efficiënte manier informatie en leerervaringen opnemen, verwerken, weergeven (delen) en deze onthouden en inzetten bij nieuwe ervaringen en in complexere situaties**
• 5-12j    Wat men in een bepaalde situatie heeft geleerd, op een voldoende flexibele wijze aanwenden in gevarieerde situaties opnieuw toepassen (transfer leggen) - eigen grenzen verleggen

▦ WDrv4 **Handig hoofdrekenen**
• Optellen > Natuurlijke getallen >  6-7j Optellingen met  een som  ≤ 10 paraat kennen
• Optellen > Natuurlijke getallen >  6-7j Optellingen met een som ≤ 20 paraat kennen

## Verloop

De leerlingen nemen een kaartje. Op dit kaartje staat een optelling geschreven. Ze lossen de optelling op. Ze kunnen controleren of het juist is, door op de achterkant van het kaartje te kijken.

| | | | |
|---|---|---|---|
| 0 + 0 = | 0 + 1 = | 0 + 2 = | 0 + 3 = |
| 0 + 4 = | 0 + 5 = | 0 + 6 = | 0 + 7 = |
| 0 + 8 = | 0 + 9 = | 0 + 10 = | 0 + 11 = |
| 0 + 12 = | 0 + 13 = | 0 + 14 = | 0 + 15 = |
| 0 + 16 = | 0 + 17 = | 0 + 18 = | 0 + 19 = |
| 0 + 20 = | 1 + 0 = | 1 + 1 = | 1 + 2 = |

| | | | |
|---|---|---|---|
| 3 | 1 | 2 | 0 |
| 7 | 6 | 5 | 4 |
| 11 | 10 | 9 | 8 |
| 15 | 14 | 13 | 12 |
| 19 | 18 | 17 | 16 |
| 3 | 2 | 1 | 20 |

| | | | |
|---|---|---|---|
| 1 + 3 = | 1 + 4 = | 1 + 5 = | 1 + 6 = |
| 1 + 7 = | 1 + 8 = | 1 + 9 = | 1 + 10 = |
| 1 + 11 = | 1 + 12 = | 1 + 13 = | 1 + 14 = |
| 1 + 15 = | 1 + 16 = | 1 + 17 = | 1 + 18 = |
| 1 + 19 = | 2 + 0 = | 2 + 1 = | 2 + 2 = |
| 2 + 3 = | 2 + 4 = | 2 + 5 = | 2 + 6 = |

| | | | |
|---|---|---|---|
| 7 | 6 | 5 | 4 |
| 11 | 10 | 9 | 8 |
| 15 | 14 | 13 | 12 |
| 19 | 18 | 17 | 16 |
| 4 | 3 | 2 | 20 |
| 8 | 7 | 6 | 5 |

| | | | |
|---|---|---|---|
| 2 + 7 = | 2 + 8 = | 2 + 10 = | 2 + 11 = |
| 2 + 12 = | 2 + 13 = | 2 + 14 = | 2 + 15 = |
| 2 + 16 = | 2 + 17 = | 2 + 18 = | 3 + 0 = |
| 3 + 1 = | 3 + 2 = | 3 + 3 = | 3 + 4 = |
| 3 + 5 = | 3 + 6 = | 3 + 7 = | 3 + 10 = |
| 3 + 11 = | 3 + 12 = | 3 + 13 = | 3 + 14 = |

| | | | |
|---|---|---|---|
| 13 | 12 | 10 | 9 |
| 17 | 16 | 15 | 14 |
| 3 | 20 | 19 | 18 |
| 7 | 6 | 5 | 4 |
| 13 | 10 | 9 | 8 |
| 17 | 16 | 15 | 14 |

| | | | |
|---|---|---|---|
| 3 + 15 = | 3 + 16 = | 3 + 17 = | 4 + 0 = |
| 4 + 1 = | 4 + 2 = | 4 + 3 = | 4 + 4 = |
| 4 + 5 = | 4 + 6 = | 4 + 10 = | 4 + 11 = |
| 4 + 12 = | 4 + 13 = | 4 + 14 = | 4 + 15 = |
| 4 + 16 = | 5 + 0 = | 5 + 1 = | 5 + 2 = |
| 5 + 3 = | 5 + 4 = | 5 + 5 = | 5 + 10 = |

| | | | |
|---|---|---|---|
| 4 | 20 | 19 | 18 |
| 8 | 7 | 6 | 5 |
| 15 | 14 | 10 | 9 |
| 19 | 18 | 17 | 16 |
| 7 | 6 | 5 | 20 |
| 15 | 10 | 9 | 8 |

| | | | |
|---|---|---|---|
| 5 + 11 = | 5 + 12 = | 5 + 13 = | 5 + 14 = |
| 5 + 15 = | 6 + 0 = | 6 + 1 = | 6 + 2 = |
| 6 + 3 = | 6 + 4 = | 6 + 10 = | 6 + 11 = |
| 6 + 12 = | 6 + 13 = | 6 + 14 = | 7 + 0 = |
| 7 + 1 = | 7 + 2 = | 7 + 3 = | 7 + 10 = |
| 7 + 11 = | 7 + 12 = | 7 + 13 = | 8 + 0 = |

| | | | |
|---|---|---|---|
| 19 | 18 | 17 | 16 |
| 8 | 7 | 6 | 20 |
| 17 | 16 | 10 | 9 |
| 7 | 20 | 19 | 18 |
| 17 | 10 | 9 | 8 |
| 8 | 20 | 19 | 18 |

| | | | |
|---|---|---|---|
| 8 + 1 = | 8 + 2 = | 8 + 10 = | 8 + 11 = |
| 8 + 12 = | 9 + 0 = | 9 + 1 = | 9 + 10 = |
| 9 + 11 = | 10 + 0 = | 10 + 1 = | 10 + 2 = |
| 10 + 3 = | 10 + 4 = | 10 + 5 = | 10 + 6 = |
| 10 + 7 = | 10 + 8 = | 10 + 9 = | 10 + 10 = |
| 11 + 0 = | 11 + 1 = | 11 + 2 = | 11 + 3 = |

| | | | |
|---|---|---|---|
| 19 | 18 | 10 | 9 |
| 19 | 10 | 9 | 20 |
| 12 | 11 | 10 | 20 |
| 16 | 15 | 14 | 13 |
| 20 | 19 | 18 | 17 |
| 14 | 13 | 12 | 11 |

| | | | |
|---|---|---|---|
| 11 + 4 = | 11 + 5 = | 11 + 6 = | 11 + 7 = |
| 11 + 8 = | 11 + 9 = | 12 + 0 = | 12 + 1 = |
| 12 + 2 = | 12 + 3 = | 12 + 4 = | 12 + 5 = |
| 12 + 6 = | 12 + 7 = | 12 + 8 = | 13 + 0 = |
| 13 + 1 = | 13 + 2 = | 13 + 3 = | 13 + 4 = |
| 13 + 5 = | 13 + 6 = | 13 + 7 = | 14 + 0 = |

| | | | |
|---|---|---|---|
| 18 | 17 | 16 | 15 |
| 13 | 12 | 20 | 19 |
| 17 | 16 | 15 | 14 |
| 13 | 20 | 19 | 18 |
| 17 | 16 | 15 | 14 |
| 14 | 20 | 19 | 18 |

| | | | |
|---|---|---|---|
| 14 + 1 = | 14 + 2 = | 14 + 3 = | 14 + 4 = |
| 14 + 5 = | 14 + 6 = | 15 + 0 = | 15 + 1 = |
| 15 + 2 = | 15 + 3 = | 15 + 4 = | 15 + 5 = |
| 16 + 0 = | 16 + 1 = | 16 + 2 = | 16 + 3 = |
| 16 + 4 = | 17 + 0 = | 17 + 1 = | 17 + 2 = |
| 17 + 3 = | 18 + 0 = | 18 + 1 = | 18 + 2 = |

| | | | |
|---|---|---|---|
| 18 | 17 | 16 | 15 |
| 16 | 15 | 20 | 19 |
| 20 | 19 | 18 | 17 |
| 19 | 18 | 17 | 16 |
| 19 | 18 | 17 | 20 |
| 20 | 19 | 18 | 20 |

| 19 + 0 = | 19 + 1 = | 20 + 0 = | |
|---|---|---|---|

| | 20 | 20 | 19 |
| --- | --- | --- | --- |