Master Odd and Even Numbers 21 to 100 A

Rationale

In this practical step, pupils develop their understanding of odd and even numbers. They will use concrete apparatus to explore patterns which determine whether numbers between 21 and 100 are odd or even and will be able to recognise these from representations. They will understand that if all of the concrete apparatus representing 1s are paired, the number is even and if one of the concrete apparatus representing 1s remains unpaired, the number is odd. Pupils will develop their learning further by identifying that the pattern of odd and even numbers continues to alternate when counting in 1s using concrete apparatus to 100

Key Stem Sentences

- All ___s are paired. / There are no ___s to be paired.
- One ___ is unpaired.
- ___ is an odd / even number.
- The pattern of numbers is ___, ___

Key Vocabulary

- odd / even
- paired / unpaired
- pattern

Key Representations

Dienes

All 1s Dienes are paired.
56 is an even number.

There are no 1s Dienes to be paired.
90 is an even number.

One 1s Diene is unpaired.
73 is an odd number.

One 1s Diene is unpaired.
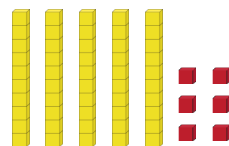89 is an odd number.

Common Errors or Misconceptions

- Pupils may look at the 10s Dienes instead of the 1s Dienes when considering if a number is odd or even. For example, 47 is even because all 10s Dienes are paired.
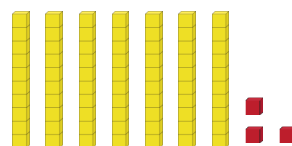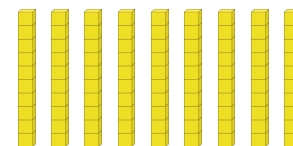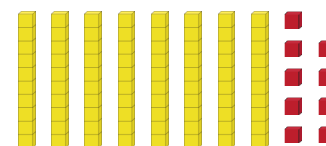- Pupils may think that numbers with no 1s Dienes are odd because none are paired.

Pupils will FLOURISH if they can...

- recognise that if all of the concrete apparatus representing 1s are paired, the number is even.
- recognise that if one of the concrete apparatus representing 1s remains unpaired, the number is odd.
- explain their understanding using verbal sentences and concrete apparatus.