

### Year 7 Number

### Statement of Learning Opportunities

- Identify and use factors of numbers including prime factors to assist mental computation

### Key Ideas

- A factor of number is a number that will divide evenly into the number
- A prime number has only two factors (itself and one)
- A composite number has more than two factors
- A square number has an odd number of factors
- A prime factor is a factor that cannot be further factorised (i.e. it is a prime number)
- Index notation can be used as a short-hand way of showing numbers multiplied by themselves
- Prime factorisation can be shown in index form
- The TI-15 can be used to help find the prime factors of a number

### Key Vocabulary

Prime, composite, factor, index

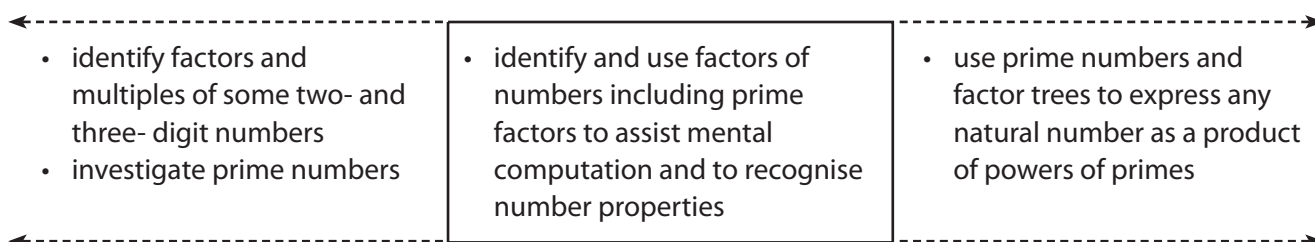
### Lesson Overview

- Revise meaning of prime, composite numbers and factors of numbers
- Finding factors of given number
- How to find prime factorisation for a given number by hand and by using the TI-15
- Determining how many factors a number has
- Challenge questions
- Assessment

### Equipment

TI-15 Explorer™, copies of worksheets and assessment

### Sequencing



# Curriculum Links

## TI-15 Explorer™: Prime Factors

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### Indicators of Success

- Students will know the difference between prime and composite numbers
- Students will be able to find all factors of a given number
- Students will be able to find the prime factorisation for a given number
- Students will be able to recall the prime numbers less than 30
- Students will be able to use division to decide if a given number is a prime