

The background is a dark blue gradient with various abstract geometric shapes in shades of pink, teal, and light blue. These shapes include circles, ovals, and elongated rectangles, some of which are overlapping or partially cut off by the edges of the frame. The overall aesthetic is modern and geometric.

Geometry, part 2

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Unit conversions

- Pupils have various problems with units of measure and their conversions:
 - they don't have the right idea about the quantity or the unit,
 - they can't estimate at least approximately the size of the measure of a unit,
 - they don't understand that there are more smaller units and fewer larger units,
 - they have problems first with adding and subtracting zeros and later with moving the decimal point

Unit conversions

- We help pupils to eliminate these deficiencies in successive steps:
- Creating the correct idea about the unit of the relevant quantity:
 - What is your height in cm (dm, m)?
 - How wide is your palm?
 - How much does a pack of papers weigh?
 - How many minutes do you walk from home to school?
- Measuring objects
- Practicing estimates
 - How tall is our school?

Unit conversions

- When converting units, for some pupils it is enough to create an idea, others need different graphic schemes.

Using visual
and other
aids for
working with
children with
learning
difficulties

		km			m	dm	cm	mm
0	0	0	0	0	0	0	0	0

- **Frames for transfer between length units**

Visual and other aids

				km ²		ha		a		m ²		dm ²		cm ²		mm ²	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

- **Frame for the transfer of area units**

Visual and
other aids

m^3			dm^3			cm^3			mm^3		
			<i>hl</i>		<i>l</i>	<i>dl</i>	<i>cl</i>	<i>ml</i>			
0	0	0	0	0	0	0	0	0	0	0	0

- Frame for the transfer of volume units

Units conversions

- It is important that pupils have an idea of the units. This is achieved by manipulative activities. Fixation can be supported by entertaining videos.
- Watch these videos:
- <https://www.youtube.com/watch?v=h6vca9PnlyI>
- <https://www.youtube.com/watch?v=LZxXUb9iAZc>



A 3D visualization of a crystal lattice structure. The lattice is composed of numerous green spheres (atoms) connected by yellow lines (bonds). The structure is shown in a perspective view, with the lines and spheres receding into the distance. The background is a dark, gradient color, possibly representing the interior of the crystal or a vacuum. The overall appearance is that of a complex, repeating geometric pattern in three dimensions.

Spatial geometry

Spatial geometry

- In spatial geometry, it is ideal to work with solid models to create a correct idea of solids and space.
- Worksheet 1:
 - Name 3D shapes, write down the number of faces, vertices and edges.
- Worksheet 2:
 - Work with cubes, build the solids. Determine the volume and the surface area of each prism.