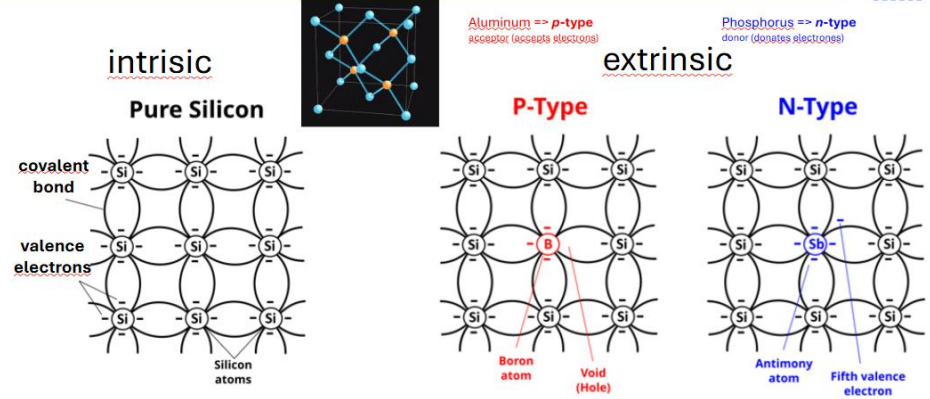
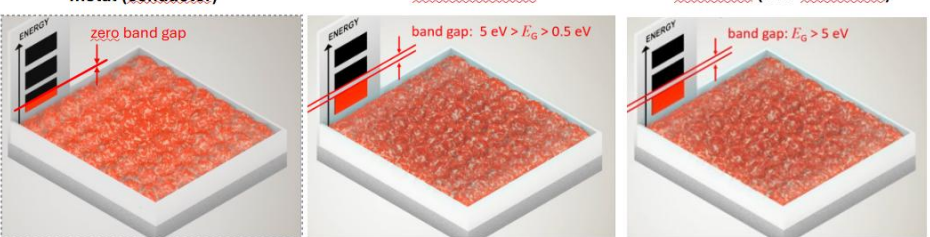
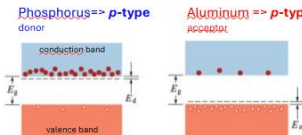
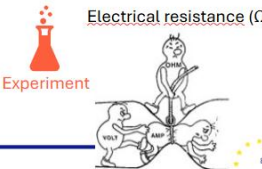
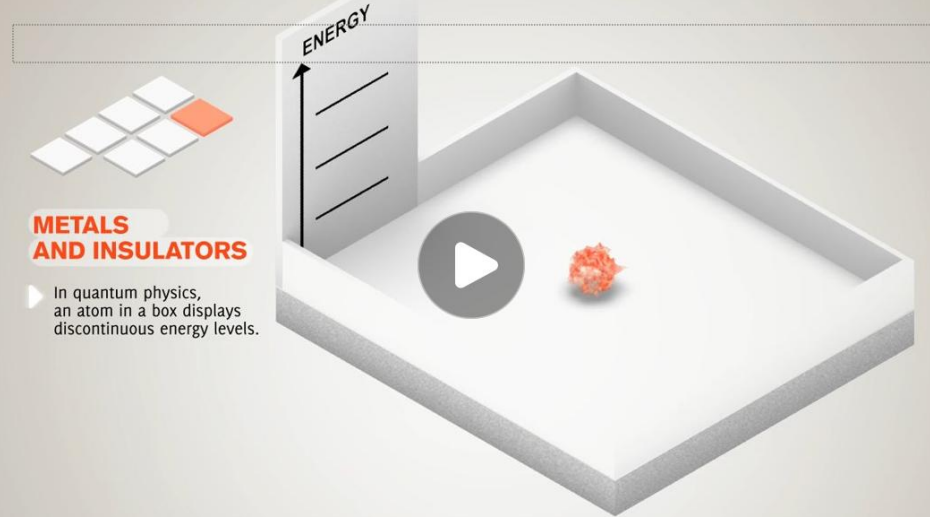
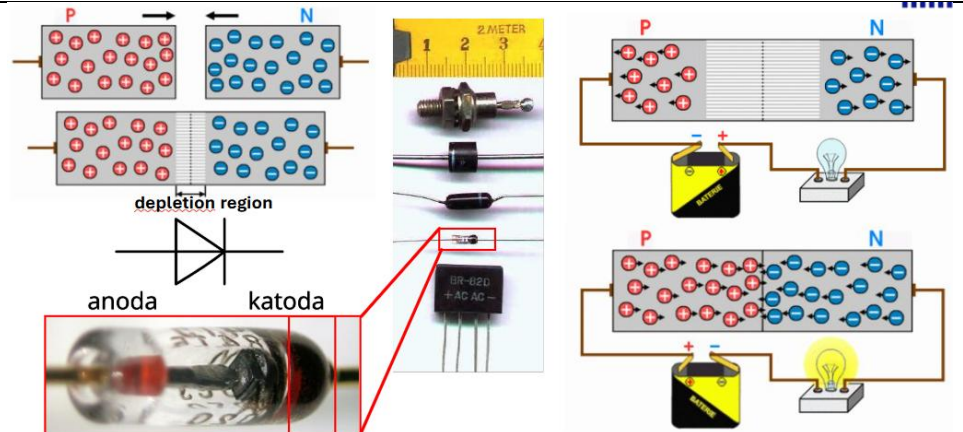
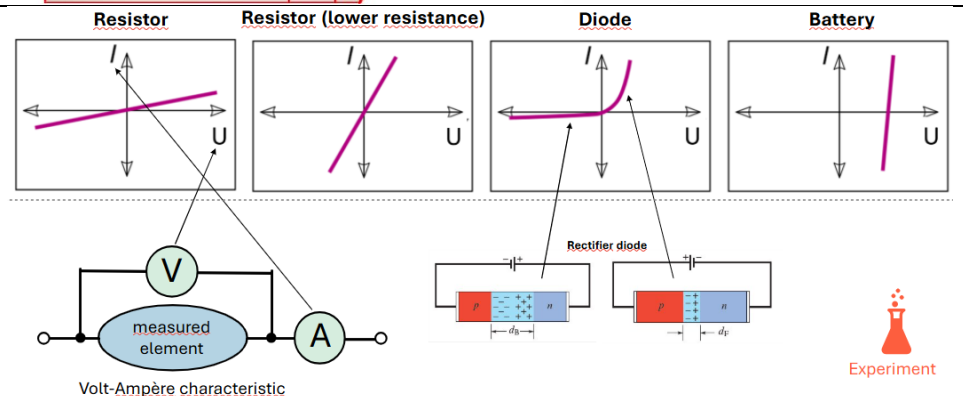
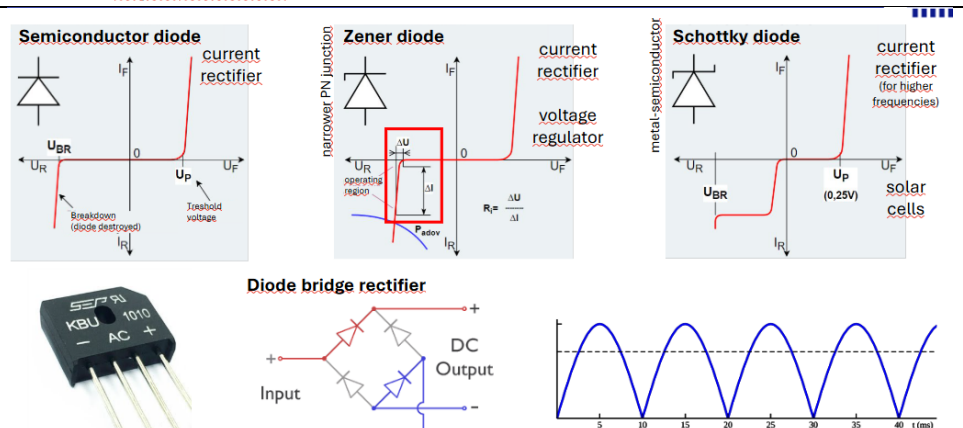
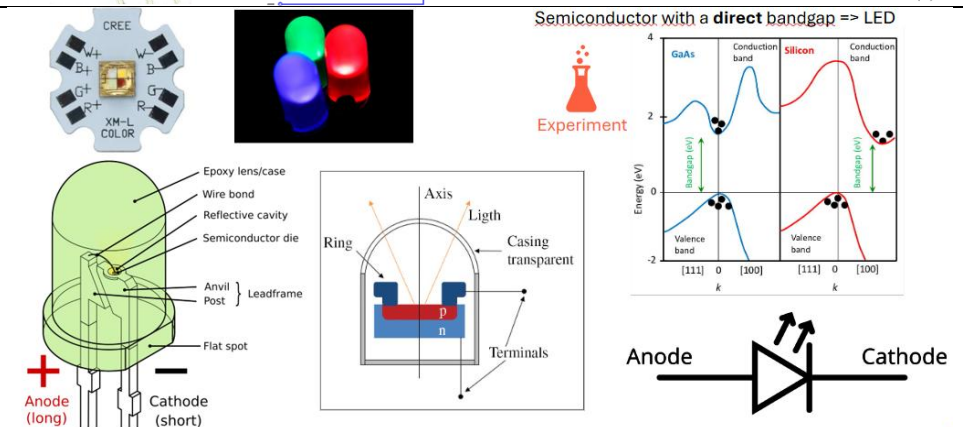
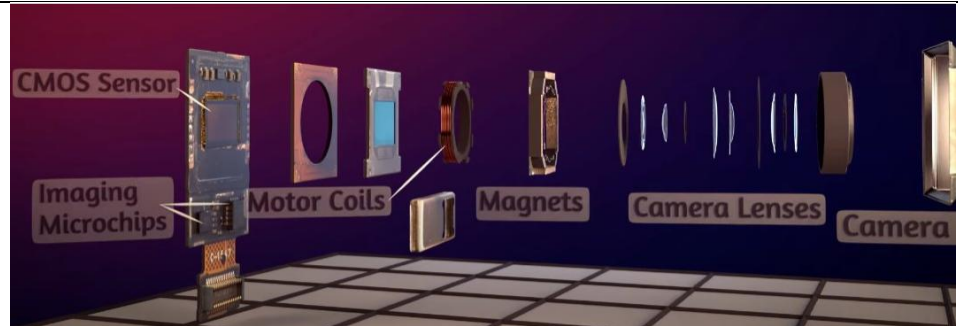
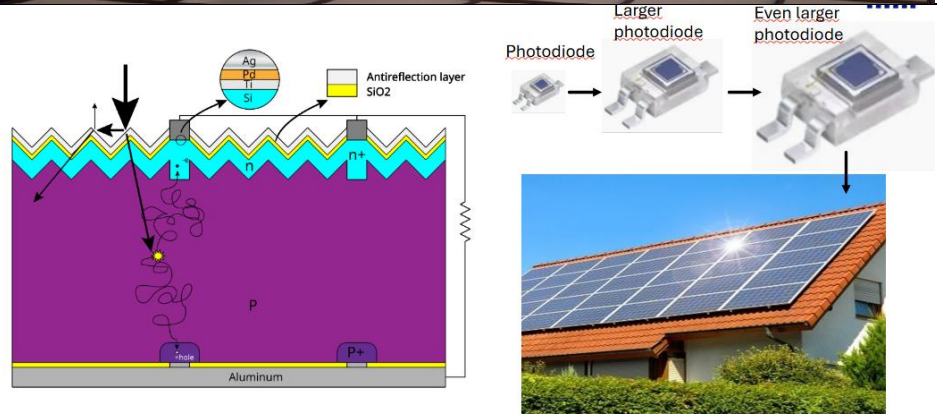
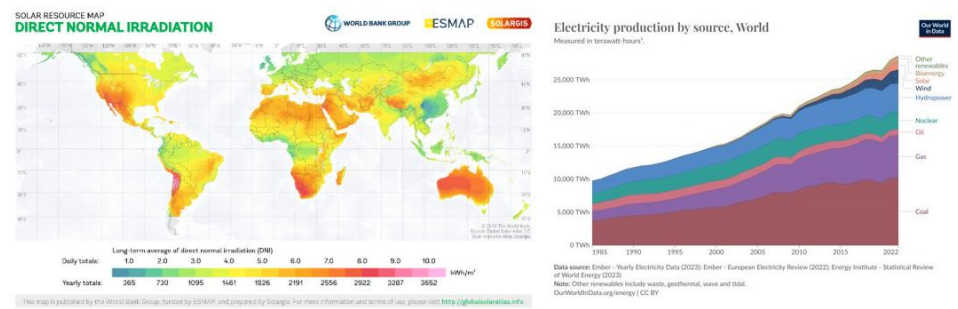
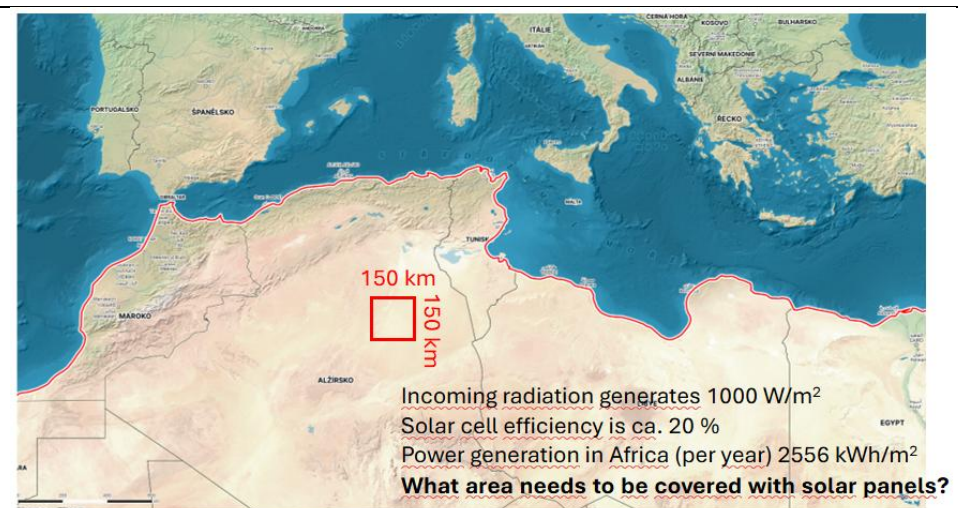


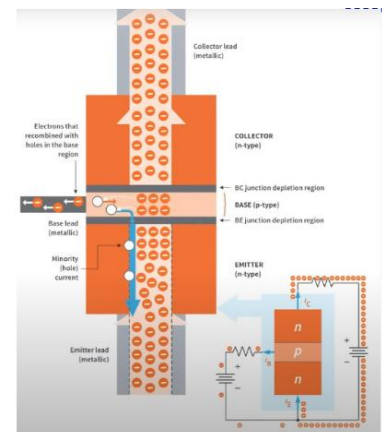
9.	Hva er en halvleder?
Målgruppe	Elever, eventuelt lærere
Alder, elever	16–18
Varighet	1,5–2 timer
Hva er en halvleder	
Oppsummering av introduksjonen	 Extrinsic semiconductors:  Electrical resistance (Ω)  CHIPS of Europe – Creating Higher-Education Industry Programmes for the Semiconductor Industry of Europe www.chips4europe.eu
Video: Metaller og isolatorer	

Anvendelser: PN-
overgang → DiodeVA-karakteristikk
(lineære vs. ikke-
lineære
elementer)VA-karakteristikk
(avansert)Diode → LED
(lysdiod)

The diagram illustrates the operation of a CCD sensor array. On the left, a vertical black bar represents the input of light (photons). These photons enter a grid of square cells, each containing a small blue square with a yellow dot, representing the 'Pixel Sensor – photons to electrons conversion'. Below this grid, a series of yellow triangles represent the 'Electron charge to voltage conversion' process. The resulting 'Voltage Signal Output' is shown as a series of yellow triangles on the right side of the diagram.

Telefonkamera


 Diode → LED →
Fotodiode →
Solcelle
Solinnstråling vs.
energiforbrukSolceller (hvorfor,
hvor mange,
hvordan...?)



Moore's Law: The number of transistors on microchips doubles every two years

Moore's law describes the empirical regularity that the number of transistors on integrated circuits doubles approximately every two years. This advancement is important for other aspects of technological progress in computing – such as processing speed or the price of computers.

Transistor count

50,000,000,000

10,000,000,000

5,000,000,000

1,000,000,000

500,000,000

100,000,000

50,000,000

10,000,000

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**Metall-oksid-
halvleder
felteffekttransistor
(MOSFET)**

