DECK (CMIP6)	
Diagnosis, Evaluation, and Characterization of Klima (Climate)	
Description: Core simulations for climate model intercomparison.	
Rationale: To maintain continuity and help document basic characteristics of models across different phases of CMIP.	
Experiments	
esm-piControl: A pre-industrial control simulation with non-evolving pre-industrial conditions and atmospheric CO2 calculated. Conditions chosen to be representative of the period prior to the onset of large-scale industrialization, with 1850 being the reference year. The piControl starts after an initial climate spin-up, during which the climate begins to come into balance with the forcing. The recommended minimum length for the piControl is 500 years. To be performed with an Earth System Model (ESM) that can calculate atmospheric CO2 concentration and account for the fluxes of CO2 between the atmosphere, the ocean, and biosphere.	**esm-piControl-spinup**: A pre-industrial control spin-up simulation with non-evolving pre-industrial forcing and atmospheric CO2 calculated. Conditions chosen to be representative of the period prior to the onset of large-scale industrialization, with 1850 being the reference year. This experiment describes an initial climate spin-up, during which the climate begins to come into balance with the forcing. To be performed with an Earth System Model (ESM) that can calculate atmospheric CO2 concentration and account for the fluxes of CO2 between the atmosphere, the ocean, and biosphere. Run until Earth System reaches equilibrium.
piControl-spinup: A pre-industrial control spin-up simulation with non-evolving pre-industrial forcing. Forcing conditions are chosen to be representative of the period prior to the onset of large-scale industrialization, with 1850 being the reference year. This experiment describes an initial climate spin-up, during which the climate begins to come into balance with the forcing. Run until at least the surface climate reaches equilibrium.	**piControl**: A pre-industrial control simulation with non-evolving pre-industrial conditions. Conditions chosen to be representative of the period prior to the onset of large-scale industrialization, with 1850 being the reference year. The piControl starts after an initial climate spin-up, during which the climate begins to come into balance with the forcing. The recommended minimum length for the piControl is 500 years.
1pctCO2: Increase atmospheric CO2 concentration gradually at a rate of 1 percent per year. The concentration of atmospheric carbon dioxide is increased from the global annual mean 1850 value until quadrupling.	**amip**: An atmosphere only climate simulation using prescribed sea surface temperature and sea ice concentrations but with other conditions as in the Historical simulation.
abrupt-4xCO2: Impose an instantaneous quadrupling of the concentration of atmospheric carbon dioxide from the global annual mean 1850 value, then hold fixed.	