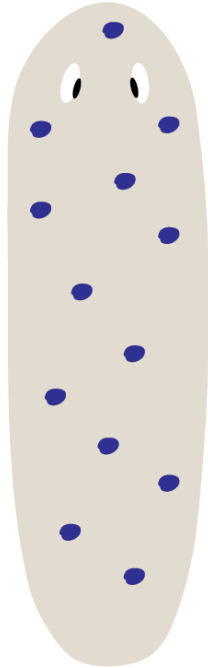


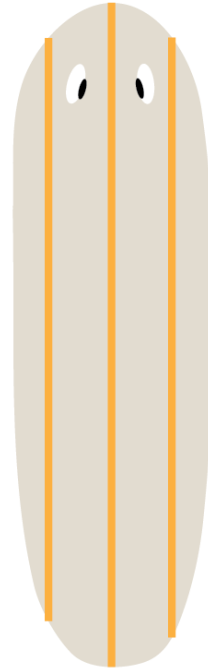
## Parent 1

$Ddss$



## Parent 2

$ddSs$



- 1) Parent 1 and Parent 2 reproduce sexually. Parent 1 is heterozygous dominant for blue dots ( $Dd$ ) and homozygous recessive for yellow stripes ( $ss$ ). Parent 2 is homozygous recessive for blue dots ( $dd$ ) and heterozygous dominant for yellow stripes ( $Ss$ ). What are all the possible offsprings these parents could produce? Use a punnett square to show your reasoning and use the template planarians to color in the possible phenotypes!



- 2) Parent 1 and Parent 2 reproduce asexually. Parent 1 is heterozygous dominant for blue dots (Dd) and homozygous recessive for yellow stripes (ss). Parent 2 is homozygous recessive for blue dots (dd) and heterozygous dominant for yellow stripes (Ss). What are all the possible offsprings that Parent 1 could produce? Parent 2? Use the template planarians to color in possible phenotypes!

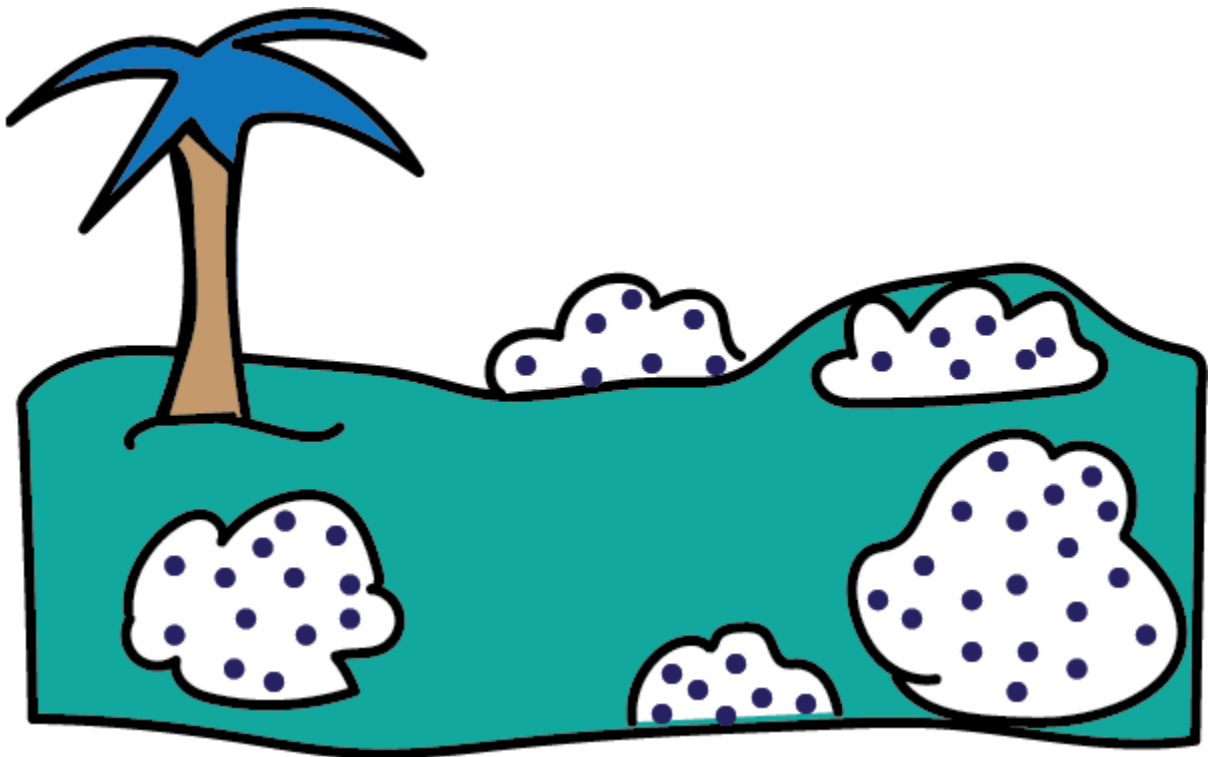
**Parent 1 offspring**



**Parent 2 offspring**



- 3) Reflection (a): Which phenotype would be the best at camouflaging in the habitat pictured below? Based on the phenotype you chose, which form of reproduction would be best suited for this environment, sexual or asexual?



- 4) Reflection (b): If a new invasive, hybrid plant species is introduced to the above habitat. This plant has both blue dots and yellow stripes. In this scenario, which phenotype would be the best at camouflaging? Based on the phenotype you chose, which form of reproduction would be best suited for the environment, sexual or asexual?