Informations pour l’enseignant :

Le carnet de programmation de l’élève est au format A4.

Dans ce document, il n’est travaillé que le déplacement relatif.

On pourra envisager le mode « déplacements absolus » pour découvrir le logiciel ou pour comparer les deux modes de déplacements.

L’IREM de Lorraine propose ici de travailler le déplacement relatif qui permet des programmes un peu plus complexes sous la forme d’un carnet de programmation inspiré de celui proposé par l’académie de Nantes.

Le choix a été fait d’utiliser également l’instruction « manger » afin que l’élève ne se contente pas de programmer le passage sur la case contenant le poisson et qu’il prenne bien conscience qu’il s’agit aussi de le manger.

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| **Parcours n°1**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | A |  |  |  |  |  |  |  |  | | B |  |  |  |  |  |  |  |  | | C |  |  |  |  |  |  |  |  | | D |  |  |  |  |  |  |  |  | | E |  |  |  |  |  |  |  |  | | F |  |  |  |  |  |  |  |  | | G |  |  |  |  |  |  |  |  | | H |  |  |  |  |  |  |  |  |   Mon programme du Parcours n°1   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |   Les élèves, en général, n’ont fait que le programme suivant. | **Parcours n°2**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | A |  |  |  |  |  |  |  |  | | B |  |  |  |  |  |  |  |  | | C |  |  |  |  |  |  |  |  | | D |  |  |  |  |  |  |  |  | | E |  |  |  |  |  |  |  |  | | F |  |  |  |  |  |  |  |  | | G |  |  |  |  |  |  |  |  | | H |  |  |  |  |  |  |  |  |   Mon programme du Parcours n°2   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |   Voici deux exemples de programme faits par les élèves : |
| **Parcours n°8**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | A |  |  |  |  |  |  |  |  | | B |  |  |  |  |  |  |  |  | | C |  |  |  |  |  |  |  |  | | D |  |  |  |  |  |  |  |  | | E |  |  |  |  |  |  |  |  | | F |  |  |  |  |  |  |  |  | | G |  |  |  |  |  |  |  |  | | H |  |  |  |  |  |  |  |  |   Mon programme du Parcours n°8   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |   Les élèves ont tendance à faire demi-tour au début du programme mais quand on doit manger les poissons, il manque deux instructions aux élèves pour qu’ils puissent terminer le parcours.    Pour gagner des instructions, il faut commencer par reculer… | **Parcours n°21**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | A |  |  |  |  |  |  |  |  | | B |  |  |  |  |  |  |  |  | | C |  |  |  |  |  |  |  |  | | D |  |  |  |  |  |  |  |  | | E |  |  |  |  |  |  |  |  | | F |  |  |  |  |  |  |  |  | | G |  |  |  |  |  |  |  |  | | H |  |  |  |  |  |  |  |  |   Mon programme du Parcours n°21   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |   Que constatez-vous ? Le problème ne peut pas se résoudre avec seulement 24 instructions.  Dans paramètres, aller dans « INTERFACE AVANCEE » et résoudre le problème. Compléter votre carnet de programmation.  Mon programme du Parcours n°21   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |   Voici un exemple de résolution.    On a appuyé 7 fois sur l’icône  puis sur l’icône . Le logiciel ne prend alors que 2 instructions   ce qui permet à chaque fois de gagner 5 instructions et ainsi de résoudre le parcours demandé. |

Le document élève se termine par deux évaluations que l’on peut faire réaliser en mode débranché et on peut donner comme aide une machine pour tester.