

| Barriers to and solutions for Engagement, Progress and Achievement in Computing | | | | | | | | |
|---|---|---|---|---|--|---|--|---|
| | Hearing Impairment | Visual Impairment | Dyspraxia (fine/ gross motor) | Memory/ processing | ASD | ADHD | Cognition | SEMH |
| Barriers identified by SENCo/Class teacher | <ul style="list-style-type: none"> • Difficulty hearing explanation/ instruction | <ul style="list-style-type: none"> • Size of screen • Contrast confusing | <ul style="list-style-type: none"> • Mouse control • Keyboard precision • Seating and positioning | <ul style="list-style-type: none"> • Amount of vocab • Recalling methods • Space between instruction and task | <ul style="list-style-type: none"> • Noise and movement- over stimulation • sharing equipment • amount of vocab | <ul style="list-style-type: none"> • waiting and frustration especially when technology doesn't work as planned • turn taking • maintaining attention • recording | <ul style="list-style-type: none"> • understanding of process, language • retention/ application of language knowledge to task • remembering vocabulary | <ul style="list-style-type: none"> • Motivation • Participation • Team/partner work • Sharing materials and "air-time" |
| Solutions identified by subject lead, SENCO, Class teacher | <ul style="list-style-type: none"> • Clear worked examples • Vocab lists • Written/ visual instruction/ explanation • signing training for staff where appropriate • position in the class | <ul style="list-style-type: none"> • Enabling accessibility features • Changing resolution • Considering colours • Reduce glare | <ul style="list-style-type: none"> • Alternative devices • Larger keyboard • Enlarged cursor to aid tracking | <ul style="list-style-type: none"> • Written/visual instructions • Clear worked examples • Well considered transitions • Repeating instructions | <ul style="list-style-type: none"> • Own set of equipment where possible • Sufficient quiet space • Well planned transitions – ie between carpet and desk • Visual instruction • Worked examples • Noise defenders | <ul style="list-style-type: none"> • Sufficient quiet space • Well planned transitions – ie between carpet and desk • Visual instructions • Worked examples | <ul style="list-style-type: none"> • Concrete resources such as beebots • Word/definition bank | <ul style="list-style-type: none"> • Clear end points • Clear expectations • Modelling and explanations clarity • Careful pairings • Own resources/working alone where appropriate |
| <ul style="list-style-type: none"> • Clarity of instruction, explanations and modelling are crucial • Ensure that the most important aspect of learning is made clear – cognitive load theory is relevant for all pupils with SEND both in terms of what pupils see and hear and are expected to learn • For many pupils with SEND, it is often the recording of the content rather than the content itself which provides the greatest level of challenge in lessons, and this should be addressed in the planning and preparation for lessons. • Motivation is vital to bring about engagement – if it feels too hard or too easy it will not be motivating | | | | | | | | |