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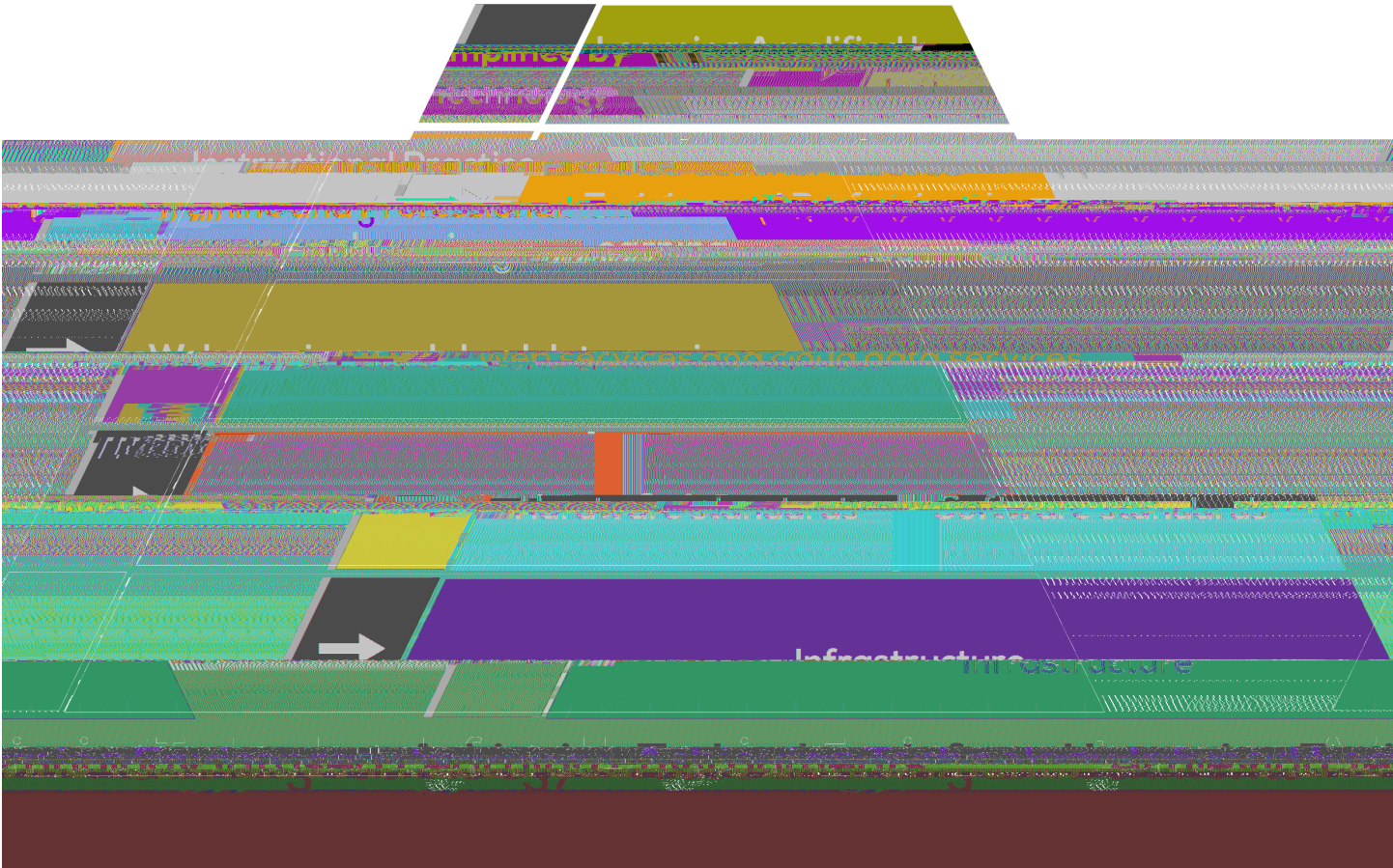
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## Learning Catalyst

### 4. Collaborator

Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems. Educators:

- a. Dedicate planning time to collaborate with colleagues to create authentic learning experiences that leverage technology.
- b. Collaborate and co-learn with students to discover and use new digital resources and diagnose and troubleshoot technology issues.
- c. Use collaborative tools to expand students' authentic, real-world learning experiences by engaging virtually with experts, teams and students, locally and globally.
- d. Demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.

### 5. Designer

Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability. Educators:

- a. Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.
- b. Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.
- c. Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.

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-. )5!)\*+!)+3\*.505<:!B+805:7+.)!8,53+11S!  
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-)!-!1+Q8+3)+B!J5,!) \* -! 7 5B+0!)5!< ,5E!)5! . - . +!30(11,55 7 1!(3,511!J56, !13\*550!S!  
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#\$! 25!\*(+!+8,5T+3)-5.!)+3\* .505<:!(+!(-0(G0+!-.!)+(3\*!)+ (3\*+, \!30(11,557!)5!(005E!8,+1+.) )(-5.!(.B!1\*(,-.<!5J!  
-.J5,7(-)5. \$!  
0\$! W@+,!) \*+!.+Q)!J56,! :+(,!)5!\*(+!+@+, :!)+(3\*+,!E-)\*!(.!(11-<. +B!B+@-3+!(.B!E\*+,+!8511-G0+!(. !=(B!X\$dh!  
(.B!0+(1+!,+),6, .! ; (3!5,! [ -.B5E1!0(8)58\$!

2\*+!B-1),-3)!\*(!G++ .!E5,D-.<!)5!+ .16,+!+(3\*!J600%)-7+!)+(3\*+,!-1!(11-<. +B!(!75G-0+!B+@-3+!)\*(!16885,)1)\*+-,!  
36,,+.)!-.1),63)-5.(0!8,(3)-3+!(.B!\*(!)\*+!(G-0):!)5!(005E!75@+7+.)!)5E(,B!B-<)(0!85,)J50-51!(.B!  
35776.-3(-.<!1)6B+.)!0+(,.-.<!B-JJ+,+.)0:\$!! [ +!8,+1+.)0:!\*(@+!dP a!5J!(00!)+(3\*+,1!E-)\*!(!75G-0+!B+@-3+!G+!-)!(!  
X\$dh!-(B!5,!(!0+(1+!,+),6, .! ; (3!0(8)58!5,!0+(1+!,+),6, .! [ -.B5E1!0(8)58\$!2\*51+!.5)!\*(@-.<!(!75G-0+!B+@-3+!E-00!  
\*(+!(!.!50B+,!B+1D)58!35786+!,!-!)\*+-,!30(11,557!\$!I.!) \*+!#\$"X#\$#\$!13\*550! :+(,!E+!+Q8+3!)!5!68B(+!  
(88,5Q-7(+)+0:!"#\$!)+(3\*+,!B+@-3+1!(.B!\*(@+!(00!J600%)-7+!)+(3\*+,1!E-)\*!(!B+@-3+!\$!2+(3\*+,1!5@+,!) \*+!0(1)!J56,!  
:(,1!\*(+!G++ .!<@+ .!) \*+!58)-5. !5J!(!X\$dh!-(B!E-)\*!K+:G5(,B!(!,+J6,G-1\*+B! ; (3!0(8)58!5,!+J6,G-1\*+B!  
[ -.B5E1!0(8)58\$! ?+0+3)-5.!(.B!,+3577+.B(-)5. !-!1!7(B+!G(1+B!5. !\*5E!)\*+!)+(3\*+,!-1!-.1),63)-.<!-!)\*+-,!  
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#\$! '5.-.6+!)5!8,5@-B+!),(-.-.<!5885,)6.-)+1!)\*(!16885,)!)+(3\*+,1!-! (780-J:-.<!1)6B+.)!1!0+(,.-.<!!  
3500+3)-.<!(.B!1\*(,-.<!+@-B+.3+!5J!0+(,.-.<!B-JJ+,+.)0:!(.B!D++8-.<!) \*+-,!G61-.+1!8,53+11+!+JJ-3+.)!\$!

9-1),-3)!=-.3-8(0!5J!I.1),63)-5.!(.B!I..5@(-)-5. !  
9-1),-3)!I.J5,7(-)5. !2+3\* .505<:!'55,B-.()5,!  
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"\$! 25!8,5@-B+!18+3-(0):!8,5<,(71!E-)\*!B+1D)58!5,!85,)(G0+!35786)+,1!)\*(!7++)!8,5<,(7!B+0-@+, :!. ++B1\$!

/ (3\*!13\*550!\*(1!5. +!5,!75,+!18+3-(0):!35786)+,!0(G1!B+8+. B-. <!5.!)\*)+!13\*550!85860()-5. !(. B!)\*+!8,5<,(77-. <!5JJ+,+B!)5!1)6B+. )!\$!!4(G1!(,+!<+. +,(00:!68B()+B!5. !(!P%\_!:+(!3:30+\$!! [ +!\*(@+!J5361+B!5. !5JJ+,-. <!-- ; (3!2+3\* .505<:!(1!763\*(1!8511-G0+!E\*-3\*!8,5@-B+!B6(0!G55)!3(8(G-0)-+!1!5!)\*(!E5,D!3(. !G+!35780+)+B!- .!G5)\*(![ -. B5E1!"\$!5,! ; (3!j !+ . @-,5. 7+. )\$! ?8+3-(0):!8,5<,(71!)\*(!,+M6-,+!+M6-87+. )!5!16885,)(3)-@-)+!1!63\*(1!' c ' !7 (3\*- . +!U! [ -. B!26. . +01!(. B!<(7-. <+! . @-,5. 7+. )!13(. . 5)! (0E(: !G+!J600: !J6. B+B!56)!5J!)\*+!2+3\* .505<: !]6B<+)S! !I. !)\*+!1+!3-,3671)(. 3+!1!13\*5501!(,+,+!185. 1-G0+!J5,!J6. B-. <!5J!)\*+!+M6-87+. )\$!

"\$! ; ++)!(!0+(1)!5. 3+!8+,!:+(!E-)\*! ?+35. B(, :!=, - . 3-8(0!(!. B!)\*+-. !13\*550\! ! ?8+3-(0):!2+(3\*+,1)!5!B-13611!  
18+3-J-3!1-)+!. ++B1!(. B!\*5E!)\*+ : !J-)!- . )5!)\*+!9-1),-3)!I. 1),63)-5. (0!2+3\* .505<: !2+3\* .505<: !=0(. \$!  
#S! ' 5. )-. 6+!)5!,+J,+1\*!0(G1!(!(!P%\_!:+(!3:30+!E-)\*(!(!(<+)!)5!,+B63+!)\*-!13:30+!G:!"%#!:+(,1\$!

9-1),-3)!=-. 3-8(0!5J!I. 1),63)-5. !(. B!I. . 5@()-5. !  
9-1),-3)!I. 1),63)-5. (0!2+3\* .505<: !' 55,B-. )5,!

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F88,5Q-7 ()+0:!f\$ a !5J! ?+35 . B(, :!( . B!/0+ 7 +.) (, :!30(



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"\$! 25!8,5@-B+!(00!=-, - . 3-8(01!( . B!H-3+%=-, - . 3-8(01!( . B! / Q306B+B!?) (JJ!E-)\*!85,)(G0+!)+3\* . 505<:!)5501!E\*-3\*!  
(005E!)\*+7!)5!0+(B!0+(, . -. <!( . B!7 (-.) (-. !+JJ-3+.)!G61-. +11!8,53+11+1\$!

F00!=-, - . 3-8(0!( . B!H-3+%=-, - . 3-8(01!( . B! / Q306B+B!?) (JJ!\* (@+!0(8)581!, ( . <- . <!J, 57!5 . +!)5!J-@+!: +(, 1!5J!(<+S!!  
4(8)581!<+. +, (00:!(, +!(11-<. +B!J5, !(!J56,!)5!J-@+%:(, !3:30+S! ?57+!8, - . 3-8(01!\* (@+!, +M6+1)+B!)5!\*( @+!( . !=(B!(1!  
E+00!(1!(!0(8)58!)5!(005E!)\*+7!)5!16885,)! ' 5776 . -3(-. <!?)6B+.)!4+(, . -. <!( . B!5)\*+, !30(11,557!- . -)-@+1\$!!  
2\*+1+!, +M6+1)1!(, +!16885,)+B!5 . !(!0-7-)+B!G(1-1\$!

"\$! ' 5 .) - . 6+!)5!68<, (B+!=-, - . 3-8(00!H-3+%=-, - . 3-8(0!( . B! / Q306B+B!?) (JJ!0(8)581!5 . !(!J56,!)5!J-@+%:(, !0-J+!  
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#\$! / @ (06()+!3\* ( . <- . <! . ++B1!J5, !=, - . 3-8(00!H-3+%=-, - . 3-8(0!( . B! / Q306B+B!?) (JJ!)+3\* . 505<-+1!(1!-)! , +0()+1!)5!  
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9-1), -3)!=-, - . 3-8(0!5J!I.1), 63)-5 . !( . B!I. . 5@()-5 . !  
9-1), -3)!I.1), 63)-5 . (0!2+3\* . 505<:!' 55, B-. (5, !  
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60 " & ( \$ # 0 ' D " / E 4 - 3 ' 6 - ; 3 5 4 " & / '

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" \$ ! 2 5 ! 8 , 5 @ - B + ! 3 0 + , - 3 ( 0 ! 1 ) ( J J ! E - ) \* ! 1 ) ( . B ( , B - R + B ! ) + 3 \* . 5 0 5 < : ! ) \* ( ) ! 7 + + ) 1 ! ) \* + , ! B ( - 0 : ! G 6 1 - . + 1 1 ! 8 , 5 3 + 1 1 ! . + + B 1 ! ( . B ! ) \* ( ) ! - 1 ! J 6 0 0 : ! 3 5 7 8 ( ) - G 0 + ! E - ) \* ! ) \* + ! ) 5 5 0 1 ! = , - . 3 - 8 ( 0 ! ( . B ! 2 + ( 3 \* + , 1 ! ( , + ! 6 1 - . < ! ) 5 ! 0 + ( B ! 0 + ( , . - . < \$ !

F 0 0 ! / 0 + 7 + . ) ( , : ! 1 3 \* 5 5 0 1 ! ( . B ! ) \* + ! 7 ( T 5 , - ) : ! 5 J ! ? + 3 5 . B ( , : ! 1 3 \* 5 5 0 1 ! ( , + ! 1 ) ( . B ( , B - R + B ! 5 . ! F 8 8 0 + ! ; ( 3 ! ; - . - ! B + 1 D ) 5 8 1 \$ ! ! [ + ! \* ( @ + ! J - @ + ! E 5 , D 1 ) ( ) - 5 . 1 ! ( 3 , 5 1 1 ! # ! 1 3 \* 5 5 0 1 ! ) \* ( ) ! \* ( @ + ! : + ) ! 5 ! G + ! 1 ) ( . B ( , B - R + B \$ !

" \$ ! ' 5 7 8 0 + ) + ! 1 ) ( . B ( , B - R ( ) - 5 . ! 5 J ! 3 0 + , - 3 ( 0 ! B + 1 D ) 5 8 ! 3 5 7 8 6 ) + , 1 \$ !  
# \$ ! = , 5 @ - B + ! 3 0 + , - 3 ( 0 ! 1 ) ( J J ! E - ) \* ! ) \* + ! 5 8 8 5 , ) 6 . - ) : ! 5 ! ( ) + . B ! , ( - . - . < ! 1 + 1 1 - 5 . 1 ! ) \* ( ) ! ( 0 - < . ! E - ) \* ! B + 8 0 5 : 7 + . ) ! 5 J ! . + E ! ) + 3 \* . 5 0 5 < : \$ !

9 - 1 ) , - 3 ) ! = , - . 3 - 8 ( 0 ! 5 J ! I . 1 ) , 6 3 ) - 5 . ! ( . B ! I . . 5 @ ( ) - 5 . !  
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23"&#4(-) /'=4#..'!"\$%) -0- \*: 'F<0"\$4&(\$(#) /G'6#&3") 4"&/G' A "\$%#) (\$/'"4\$H'

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"S! 25!8,5@-B+!W8+, (-)5.1!?) (JJ!E-)\*!1) (. B(,B-R+B!) +3\* .505<:!) \* (!7++)!) \*+-, !B(-0: !G61-. +11!8,53+11!. ++B1S!

; (-.)+ . (. 3+!1) (JJ!\*(@+!85,) (G0+!5, !B+1D)58!) +3\* .505<:!) 5501!) \* (!, +!86,3\*(1+B! (. B!, +J, +1\*+B!G(1+B!5.!) \*+-, !  
18+3-J-3!T5G!J6.3)-5.!(. B!3\*(. <-. <! . ++B1S!2+3\* .505<: !?+, @-3+1!68B() +1!58+, (-)5. \!1!7 (3\*- . +1!(1!G6B<+)! (005E1!  
(. Bg5, !B5+1!351)!1\*(, -. <!E\*+. !8511-G0+S!

"S! [ 5, D!E-)\*!)+!W8+, (-)5.1!9+8(,) 7+.!)!5!35 7 80+)+!(!) +3\* .505<:!, +@-+E! (. B!B+), 7- . +!18+3-J-3!. ++B1S!  
#S! 9+@+058!(!, +J, +1\*!13\*+B60+S!

9-1), -3)! =, - . 3-8(0!2+3\* .505<: !?+, @-3+1!  
W8+, (-)5.1!9+8(,) 7+.!) ; (. (<+, !!

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!"\$%) -0- \*: 'D"3#&4; ")4'!"\$%)(\$(#)/'

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"1/2&\*0\*' 3!; \$#(<\$#1!\$&(!8\*9, <\$#1!8101/,%\* &!  
I #&+B#&' '#) +'=-.4B#&' '=4#) +#&+/'

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^(,BE(+!1)(.B(B1!(,+!1+)))\*,56<\*!(. !+@(06()-5. !8,53+11!)\*(!055D1!(!)))\*+!18+3-J-3! . ++B1!5J!)\*+!+ . B!61+,U!)\*+!  
1+36,-):!(. B!8,-@(3: !8,5@-B+B!5. !)\*+!B+@-3+!g!80()J5, 7!(. B!5)(0!351)!5J!5E. +,1\*-8!5@+,!)\*)+!0-J+!5J!)\*+!B+@-3+S!  
2\*-1!(005E!J5,!1+0+3)-5. !5J!+M6-8 7+. )!)\*(!8,5@-B+1!)\*+!G+1)!8511-G0+!61+,!+Q8+,-+ . 3+!J5,!T5G!18+3-J-3! . ++B1S!  
?-7-0(,0:!!15J)E(+,-!+@(06()+B!)\*,56<\*!(!61+!3(1+!(. (0:1-1!- . !35 7 G-. ()-5. !E-)\*!(!1+36,-):!(. B!8,-@(3:!,+@-+E!  
)5!+. 16,+!)\*+!,+156,3+!7 ++)! ] ' !=6G0-3!?+3)5,!=-,@(3:!,+M6-,+7+. )!S!!W. 3+!)\*+!1+!8,53+11+!(!,+!35 7 80+)+B!)\*+!  
9-1),-3)!2+3\*. 505<: !FB@-15, :! ' 5 7 7 -))++!+ . B5,1+1!1)(. B(B1S!

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2\*+!1)(. B(B1!(,+!35. )-. 65610:!,+(11+11+B!)5!+. 16,+!)\*(!+M6-8 7+. )!(. B!15J)E(+,+!35. )-. 6+!)5!G+1)! 7 ++)!)\*+!  
0+(,.-.<! . ++B1!5J!56,!1)6B+. )!!(. B!G61-. +11!8,53+11!,+M6-,+7+. )!5J!)\*+!9-1),-3)S!

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 )&9#\$- ,#. / ,. #1!  
 7#) +B(+4%'

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"\$! 25!8,5@-B+(00!13\*550!1-)+!E-)\*!(B+M6()+!G(.BE-B)\*!)5!7++)!)\*+. ++B1!5J!+B63()-5.(0!8,5<,(71!(.B!  
 B-1),-3)!G61- . +1!18,53+11+1\$!

?+35.B(, :! ?3\*550!8, +1+. )0:!\*(@+!)\*+!0(<,+1)!G(.BE-B)\*!B+7(.B1!B6+!)5!0(<+,!1)6B+.)!85860()-5.1U!<,+())+!  
 .67G+,1!5J!85,)(G0+!B+@-3+1!(.B!-.3,+(-.<!61+!5J!B-<)(0!E+G!G(1+B!,+156,3+1\$! =,+1+. )0:U!56,!)\*,++!5J!56,!J56,!  
 ?+35.B(, :! ?3\*550!1\*(@+!)\*+!7-. -7(00:!,+M6-,+B!G(.BE-B)\*!E-)\*!5. +!13\*550!,+M6-,-.<!)\*)+!86,3\*(1+!5J!(!1+35.B!  
 35.. +3)-5.!5!7++)!7-. -7(0!,+M6-,+7+. )!\$! =\*(1+!)E5!)\*+!)\*+!8,5@-.3-(0!cNc!.+)E5,D!-1!+Q8+3)+B!)5!G,-.<!)\*)+!  
 B-1),-3)!-78,5@+B!G(.BE-B)\*!1!5@+,!)\*)+!.+Q)!0!:+(,1\$!

		!	!	!
'5E-3*(.! ?+35.B(, :! !	&\$ \$ 7 G!	&\$ \$ 7 G!	',5J)5. !/0+7+.)(, :! ?3*550!	0\$ 7 G!
>,(.3+1!K+01+ :! ?+35.B(, :!	&\$ \$ 7 G!	&\$ \$ 7 G!	9-135@+, :! /0+7+.)(, :! ?3*550!	0\$ 7 G!

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c+)E5,D!?:1)+7!F.(0:1)!

9-1),-3)!=-,.-3-8(0!5J!I.1),63)-5.!(.B!I..5@()-5.!!

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+13+/\$%' '(+/,3#/+ : %5#;4&2 : ,23%+2#94&2+#G\$##2/+ : %43 : ,( ; #+<5'8,2#2+; \*+H I H+A6+; 4&2 : ,23%+ : ,( ; &##2+3'+; #+<.5\$%4/#2+-5'9+  
8#&2'5/=: J '&3%(\*+##/+4&2+,&+/'9#+\$4/#/'&#73,9#:#K.,<9#&3+\$'/3/+ : ,( ; #+,&8'(8#2=-1((+'3%#5+;4&2 : ,23%+\$'/3/+45#<5'8,2#2+-5'9+3%#  
<5'8,&\$,4(+#2.\$43,'&+;('\$>+-.&2,&)+4&2+4//,)&#2+;#-'5#5#(#4/#+3'+3%#/\$%' '(+2,/35,\$3+

+  
L5#/#&3(\*6+ : #+-'5#\$4/3+3 : '+/\$%' '(/+5#K.,5,&)+;4&2 : ,23%+/.<<(#9#&343,'&+43+4&+3,943#2+\$'/3+'-+MCNBB+@\*#45++  
+



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L(&"B#00/'#)+ '!%&"#4'A#)#\*"; ")4'D"M("\$"/'

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"S! 25!

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N(&"0"//'K"4B-&E/'

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"S! 25!8,5@-B+!B-1),-3)!G6-0B-.<!E-)\*!35 7 80+)+!E-,+0+11!35@+,(<+!)\*(!-1!,5G61)U!1)(G0+!(.B!1+36,+S!  
#S! 25!5,<(.-R+!56,!E-,+0+11!1+,@-3+!(,56.B!56,!H4 F c !B+805: 7+. )1!15!)\*(!E+!\*(@+!58)- 7 -R+B!),(JJ-3!  
1\*(8-.<!5!16885,)!56,!G61-.+11U!+B63()-5.!(.B!] 1 W 9!.++B1!-.!G6-0B-.<1S!

?+35.B(, :! ?3\*5501!\*(@+!E-,+0+11!.+)E5,D1!E-)\*!\*(G-0-)!5!16885,)!(.B!7 (. (<+!68!)5!#\$\$\$!1-7 60)(.+561!  
B+@-3+1!(.B!/0+7+.)(, :! ?3\*5501!3(.!16885,)! (88,5Q-7 ()+0:!"\$\$\$!B+@-3+1S!F00!30(11,55 7 1!-.!(00!G6-0B-.<!\*(@+!  
[ I>I!35@+,(<+S!!^ 5E+@+,U!(1!56,113\*5501!35.)-.6+!)5!<,5E!(.B!)\*+!B+.1-):!5J!B+@-3+!61(<+!-1!-.3,+ (1-.<!7 5,+!  
3(8(3-):!(3,511!56,!E-,+0+11!(33+11!85-.)!1-!!,+M6-,+B!)5!(@5-B!1+,@-3+!105E%B5E. 1S!

"S! ?+)(.B!- 7 80+7+. )!(!E-,+0+11!(33+11!85-.)!+Q8(.1-5. !g!68<,(B+!)- 7 +0-.+!J5,!(00!13\*5501!G(1+B!5. !18+3-J-3!  
G6-0B-.<!+. +B1S!  
#S! =,5@-B+!) +3\*.-3(0!1)(JJ!),(-.-<15. !E-,+0+11!G+1)!8,(3)-3+1J,5 7 !56,!@+. B5,S!  
OS! ] 6B<+)!J5,!(.B!86,3\*(1+!(33+11!85-.)!15. !(!:+(,0: !G(1-1!)5!,+80(3+!+. B!5J!0-J+!+M6-8 7+. )!

9-1),-3)!=-,.-3-8(0!5J!I.1),63)-5.!(.B!I.. 5@()-5. !  
c+)E5,D!?: 1)+7 1!F.(0: 1)!  
W8+,( )-5. 1!9+8(,)7+. )!

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75(0+())\*'K"4B-&E'N(&())\*''

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"S! 25!8,5@-B+!(00!13\*550!G6-0B-.<!E-)\*!1)(G0+!.+)E5,D!E-,-.<!)\*(!)7++)!13()+<5,:!\_!1)(.B(,B!S

F00!13\*550!G6-0B-.<!\*(@+!3()+<5,:!P+!.+)E5,D!E-)\*!157+!.+)E5,D!E-B+.)-J+B!(!\*(@-.<!3(G0-.<!3\*(00+.<+!B6+!  
)5!)55!7(.:!\*58!U!B-1)(.3+!5,!1618+3)+B!B(7(<+S!2\*+!7(T5,-):!5J!30(11,5571!(3,511!)\*+!13\*550!B-1),-3)!\*(@+!(!  
.)E5,D!B,58!(@(-0(G0+!)5!)\*+7U!\*5E+@+,!E+!1)-00!\*(@+!(!1+0+3)-5.!5J!,5571!E\*+,+!E-,+0+11!-1!)\*+!5.0:!58)-5.!5!  
<+)!.)E5,D-.<!-.)5!)\*+!18(3+S

"S! '5780+)+!3(G0-.<!+@(06()-5.1!-.!13\*550!E-)\*!.)E5,D!-.35.1-1)+.3-+!!(.B!B+@+058!1-)+!18+3-J-3!  
,+7+B(-)-5.!80(.1S!  
#S! /.16,+!(00!30(11,557!053()-5.1!E\*-3\*!,+M6-,+!8\*:1-3(0!.)E5,D!(33+11!\*(@+!.+)E5,D!3(G0+!18600+B!)5!)\*+!  
,+3577+.B+B!053()-5.S!

?-)+!2+3\*.-3-(.1!  
; (-.)+.(.3+!9+8(,)7+.)!/0+3),-3-(.1!

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D#4#'6")4&'''

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"\$! 25!35.)-.6+!)5!+Q8(.B!56,!1-.<0+!B-,+3)5,:!1+,@-3+!75B+0!)5!(00!1+,@-3+!5JJ+,+B!)5!+.B!61+,1!-.!)\*)+!  
13\*550!B-1),-3)\$!2\*-1!7+(.1!75@-.<!)5!(!1-.<0+!61+,.(7+!(.B!8(11E5,B!J5,!)\*)+!7(T5,-):!-J!.5)!(00!  
1+,@-3+!\$!  
#\$! 25!8,5@-B+!5.%1-)+!3056B!1)5,(<+!(.B!G(3D68!3(8(3-):!J5,!8+,15..+0!()!)\*+! ]5(,B!WJJ-3+!'5780+Q\$!!!  
O\$! 25!B+@+058!(!1),5.<+,!5JJ%1-)+!G(3D68!75B+0!J5,!B-1),-3)!7-11-5.!3,-)-3(0!B()(\$!  
&\$! 25!+Q8(.B!56,!61+!5J!)\*+! ; -3,515J)!25,5.)5!9()(!'+.),+\$!  
P\$! 25!I780+7+.)!(./.)+,8,-1+!'056B!?!+,@-3+!G(3D!)5!8,5)+3)!3056B!1)5,+B!B()(\$!

[ +!\*(@+!760)-80+!1+,@+,1!053()+B!-.!56,!B()(!3+.),+!

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=\$%- -0'7#/' + '=' &M''&/'

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"\$! 25!8,5@-B+!+(3\*!13\*550!E-)\*!J(1)!,+0-(G0+!J-0+!1)5,( <+!3(8(G-0-)+1\$!  
#\$! 25!35.)-.6+!)5!8,5@-B+!13\*550%G(1+B!3056B!1+,@-3+!J-0+!1)5,( <+!J5,!(!G,5(B!18+3),6 7 !5J!B+@-3+1!)\*(!3( .!  
G+!,+(3\*+B!)\*,56<\*!)!+!E+G!J,5 7 !G5)\*!5 .!( . B!5JJ%1-)+\$!  
O\$! 25!8,5@-B+!3(3\*- . <!1+,@-3+1)5!16885,!J(1)!,+0-(G0+!-W?!( . B! ; (3! j !68B()+1\$!  
&\$! 25!35.)-.6+!)5!8,5@-B+!5.%1-)+!B-,+3)5, : !1+,@-3+1!J5,!J(1)!,+0-(G0+!1- . <0+!1-< . %5 . \$!  
P\$! 25!+Q805,+!,+B63- . <!)!+! . 6 7 G+!,5J!13\*550%G(1+B!1+,@+,1!( . B! 7 5@+!)5!(!R5 . (0!3061)+,- . <! 7 5B+0\$!

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/ (3\*!5J!56,!13\*550!18,+1+.)0: !\*(!15 . +!5,! )E5!1+,@+,1!)\*(!8,5@-B+!1!J-0+!1)5,( <+!U!3056B!1)5,( <+!U!B-,+3)5, : !1+,@-3+1!  
( . B!8,- . )!1+,@-3+1\$!2 \*+!B-,+3)5, : !1+,@-3+!( . B!8,- . )!1+,@-3+1!J+B+, )+!G(3D!)5!56,!3+ . ),(0!B()(!3+ . ),+U!(005E- . <!  
3+ . ),(0-R+!68B()+1!( . B!3\*( . <+!1\$!!F 1! c N c !#!-!1- 7 80+ 7 + . )+B!( . B! 7 5,+!G( . BE-B)\*!-1!8,5@-B+B!)5!)\*+!13\*550!  
B-1),-3)U!-)!E-00!G+!B+1-,(G0+!)5!,+B63+!)\*+! . 6 7 G+!,5J!1+,@+,1!053()+B!- . !G6-0B- . <1\$!!W . +!58)-5 . !)5! 7 (- . )(- . !  
,+B6 . B( . 3 : !E\*-0+!,+B63- . <!)!+! . 6 7 G+!,5J!1+,@+,1!(!+)(3\*!13\*550!1-)+!-1)5! 7 5@+!)5!R5 . (0!1+,@+,!J( , 7 1!g!3061)+,1!  
)!)\*(!E-00!8,5@-B+!)\*+1+!1( 7 +!1+,@-3+1\$!

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"\$! A8B()+!( . B! ,+80(3+!13\*550!1+,@+,1!(1!,+M6-,+B\$!  
#\$! /Q805,+!( . B!-J!(88,58,-)+U!B+1-< . !!( . B!R5 . (0!1+,@+,!J( , 7 !80( . !)5!,+B63+!5@+,(00!\*( ,BE(,+!B+805 : 7 + . )!  
E\*-0+! 7 (- . )(- . - . <!1+,@-3+!0+@+01\$!

9-1),-3)!=- . 3-8(0!5J!I . 1),63)-5 . !!( . B!I . . 5@()-5 . !  
c+)E5,D!?: 1)+ 7 !!F . (0: 1)!!  
?: 1)+ 7 !?6885,)!?8+3-(0-1)!!

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I "03'D"/E'=: /4"; '

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"\$! 25!35.)-.6+)5!+.356,(<+!56,!+.B%61+,!)5!16G7-)!16885,)!)-3D+)1!B-,+3)0:!)5!)\*)+!1:1)+7!5,!5!355,B-.())+!  
)\*,56<\*!(!G6-0B-.<!1-)+!35.)(3)\$!  
#\$! 25!,+1+(,3\*!(.B!1+0+3)!(. !68B()+B!)-3D+)-.<!1:1)+7!)5!,+80(3+!56,! .5E!+.B!5J!0-J+!1:1)+7\$!!

2\*+!^+08!9+1D!2-3D+)!? :1)+7!\*(!G++ .!-.!8,5B63)-5. !J5,!5@+,!)+.!:+(,1!(.B!-1!61+B!J5,!B(:%)5%B(:!), (3D-.<!5J!  
) ,56G0+!)-3D+)1!(.B!)5!(11-<.!- .B-@-B6(0!)+3\* .-3-(. !E5,DS!2\*+!1:1)+7!,+7(-. !1!)(G0+!(.B!J6.3)-5.(0!G6!)!)-1!  
5JJ-3-(00:!)!)\*+!+.B!5J!B+@+0587+.)!(.B!16885,)!J,57!)\*)+!@+.B5,\$!F! .5!.+E!B+@+0587+.)!E-00!(D+!80(3+!5.!)\*)+!  
1:1)+7!)-1!)-7+)5!G+<-.!055D-.<!J5,!(!,+80(3+7+.)!)55\$!

"\$! '5.)-.6+!61+!5J!)\*+!+Q-1)-.<!^+08!9+1D!2-3D+)!? :1)+7\$!  
#\$! C+1+(,3\*!(.B!1+0+3)!(!,+80(3+7+.)!1:1)+7!(.B!B+@+058!(. !-780+7+.)(-5.!) -7+0-.+ \$!  
0\$! '5.)-.6+!)5!G6-0B!(!360)6,+!(3,511!)\*+!13\*550!B-1),-3)!5J!16G7-)-.<!16885,)!)-3D+)1!,())\*+,!)\*(. !8\*5.-.<!  
) +3\* .505<: !1+,@-3+1!B-,+3)0: !J5,! .5. %+7+,<+.3:!,+M6+1)!\$!

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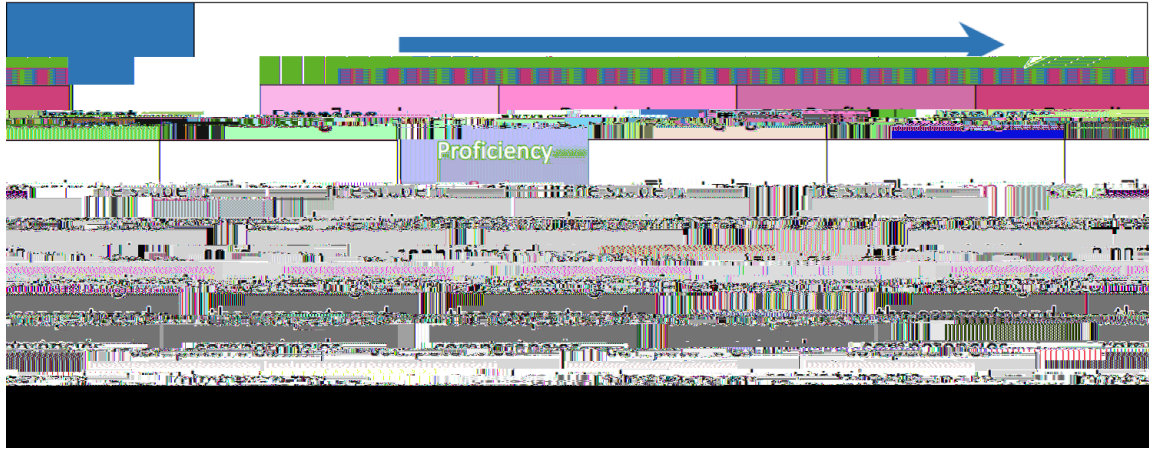
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R"\$-; ; ")+"+'!"\$%) -0-\*:'6-; 3"4")\$("/'  
 =45+" )4/'S&#+"/'T>U'



Technology Skill Competency	Suggested Resource / Tool	Emerging	Developing	Proficient	Extending
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Digital publi